

TABLE OF CONTENTS

<u>Sr.#</u>	<u>Subject</u>	<u>Page#</u>
	Scheme of Studies	iv
	Rules	xvii
	COMPULSORY SUBJECTS	
1.	Urdu	1
2.	Pakistani Culture (for foreign students only in lieu of Urdu)	4
3.	English	6
4.	Islamic Education / Religious Education (Non-Muslim)	8
5.	Pakistan Studies	10
6.	Civics / Ethics (for non Muslims in lieu of Translation of the Holy Quran)	14
7.	Trnaslation of the Holy Quran	229
	HUMANITIES GROUP	
	List of Elective Subjects	
1.	History(Opt one only from the following History Subjects) History of Modern World	21
2.	History of Pakistan	18
3.	History of Islam	27
4.	History of Muslim India	23
5.	Economics	36
6.	Geography	45
7.	Military Science	48
8.	Philosophy	51
9.	Psychology	55
10.	Statistics	62
11.	Islamic Studies	67
12.	Outlines of Home Economics	70
13.	Music	72
14.	Fine Arts	74
15.	Arabic	76
16.	English Elective	79
17.	French (Modern Language)	80

18.	German (Modern Language)	81
19.	Punjabi	83
20.	Pashto	85
21.	Persian	86
22.	Sindhi	87
23.	Urdu Advance	90
24.	Health and Physical Education	92
25.	Education	95
26.	Geology	101
27.	Sociology	104
28.	Library Science	205
29.	Computer Science	213
30.	Agriculture	203
31.	Civics	220
32.	Nursing	190
33.	Commercial Practices	225
34.	Mathematics	153
35.	Saraiki	*
36.	Balochi	*
PRE-MEDICAL GROUP		
1.	Physics	107
2.	Chemistry	119
3.	Biology	134
PRE-ENGINEERING GROUP		
1.	Physics	107
2.	Chemistry	119
3.	Mathematics	153
GENERAL SCIENCE GROUP		
1.	Mathematics	153
2.	Physics	107
3.	Statistics	62
4.	Economics	36
5.	Computer Science	213
COMMERCE GROUP		
1.	Principles of Accounting	167

2.	Principles of Economics	168
3.	Principles of Commerce	170
4.	Business Mathematics	171
5.	Commercial Geography	172
6.	Computer Studies	175
7.	Banking	177
8.	Statistics	171

HOME ECONOMICS GROUP

1.	Biology and Chemistry	179
2.	Home Management	182
3.	Clothing and Textiles	183
4.	Applied Art	185
5.	Food & Nutrition	186
6.	Child Development & Family Living	188

ISLAMIC STUDIES GROUP

1.	Arabic	198
2.	Islamic Studies	198
3.	Islamic History and Culture	199

MEDICAL TECHNOLOGY GROUP

1.	Medical Lab Technology group	*
2.	Dental Hygiene Technology group	*
3.	Operation Theatre Technology group	*
4.	Medical Imaging Technology group	*
5.	Physiotherapy Technology group	*
6.	Ophthalmic Technology group	*

***Syllabus is not yet available**

قواعد و ضوابط

برائے

انٹرمیڈیٹ پارٹ I اور پارٹ II امتحانات

سیکرٹری تعلیمات/کنٹرولنگ اتھارٹی بورڈز (حکومت پنجاب) کی طرف سے جاری کردہ چھٹی نمبر S.O(Boards)12-3/2014 مورخہ 18.09.2015 اور پنجاب بورڈز کمیٹی آف چیئرمین کے اجلاس منعقدہ 24 ستمبر 2014 کی شق نمبر 13 کے تحت سیکنڈری سکول و ہائیر سیکنڈری سکول کی سطح پر پریکٹیکل کی گریڈنگ کو ختم کر کے دوبارہ پریکٹیکل کے نمبر بحال کر دیے گئے ہیں (جس کی تفصیل بورڈ کی جانب سے جاری کیے گئے نوٹیفکیشن نمبر 2/2015 مورخہ 28.09.2015) پر موجود ہے۔ نیز حکومت کی پنجاب چیف انسٹرکٹرز مینٹرننگ فورس سکول ایجوکیشن کی طرف سے سیکنڈری سکول کی سطح پر ڈینیگی سے متعلق نہم جماعت میں بیالوجی اور جزل سائنس جبکہ جماعت دہم میں دہشت گردی سے متعلق مختصر سوال مطالعہ پاکستان کے پرچہ میں دیئے جائیں گے۔ اسی طرح انٹرمیڈیٹ کی سطح پر دہشت گردی سے متعلق مختصر سوال گیارہویں جماعت میں اسلامیات لازمی جبکہ بارہویں جماعت کے لیے ڈینیگی سے متعلق سوال مطالعہ پاکستان میں دیئے جائیں گے۔ اس سکیم کا اطلاق اکیڈمک سیشن 17-2015 سے ہوگا۔ اس سکیم کے تحت گیارہویں جماعت سالانہ امتحان 2016ء و ماہ بعد لیا جائے گا۔ گیارہویں جماعت اور بارہویں جماعت کے امتحانات کے لیے مضامین/پرچہ جات اور نمبروں کی تقسیم کتاب کے اگلے صفحات پر درج معیار کے مطابق ہوگی۔

**SCHEME OF STUDIES FOR INTERMEDIATE EXAMINATIONS
UNDER PART SYSTEM FOR SESSION 2016-18 & ONWARD**

Punjab Boards of Intermediate and secondary Education, offer qualifications for both English and Urdu medium candidates for Intermediate / Higher Secondary School Certificate (HSSC) level education. The revised Intermediate / HSSC Scheme of Studies issued by the Curriculum Wing will be implemented from Session 2012-2014 and onward. Accordingly, each Intermediate / HSSC subject will be taught across both the Classes XI & XII. Punjab Curriculum & Textbook Board Introducing new subject "Translation of Holy Quran vide letter No. M-48-58-A/PSMD/2022 dated 28.07.2022. The marks and groups allocated to the subjects in the revised Scheme of Studies are as follows:

PRE - MEDICAL GROUP

<u>Sr #</u>	<u>Code</u>	<u>Subject</u>	<u>Part-I</u>	<u>Part-II</u>	<u>Practical</u>
1.	6002 6006	Urdu / Pakistani Culture (for Foreign Students only)	100	100	
2.	6001	English	100	100	
3.	6092	Islamic Education OR Religious Education (for Non Muslims)	50		
4.	6093	Translation of the Holy Quran / Ethics / Civics (for Non Muslims)	50	50	
5.	6091	Pakistan Studies		50	
6.	6046	Biology	85	85	30
7.	6047	Physics	85	85	30
8.	6048	Chemistry	85	85	30
			555	555	90
		Total Marks:	1200		

PRE - ENGINEERING GROUP

<u>Sr#</u>	<u>Code</u>	<u>Subject</u>	<u>Part-I</u>	<u>Part-II</u>	<u>Practical</u>
1.	6002 6006	Urdu / Pakistani Culture (for Foreign Students only)	100	100	
2.	6001	English	100	100	
3.	6092	Islamic Education OR Religious Education (for Non Muslims)	50		
4.	6093	Translation of the Holy Quran / Ethics / Civics (for Non Muslims)	50	50	
5.	6091	Pakistan Studies		50	
6.	6019	Mathematics	100	100	
7.	6047	Physics	85	85	30
8.	6048	Chemistry	85	85	30
			570	570	60
		Total Marks:	1200		

GENERAL SCIENCE GROUP

Sr. #	Code	Subject	Part-I	Part-II	Practical
1.	6002 6006	Urdu / Pakistani Culture (for Foreign Students only)	100	100	
2.	6001	English	100	100	
3.	6092	Islamic Education OR Religious Education (for Non Muslims)	50		
4.	6093	Translation of the Holy Quran / Ethics / Civics (for Non Muslims)	50	50	
5.	6091	Pakistan Studies		50	
6.		A) Physics, Mathematics, Statistics B) Mathematics, Economics, Statistics C) Economics, Mathematics, Computer Science D) Mathematics, Statistics, Computer Science E) Mathematics, Physics, Computer Science (CHOOSE ANY ONE COMBINATION)	85 +100 + 85 100 +100 + 85 100 +100 + 75 100 +85 + 75 100 +85 + 75	85 +100 + 85 100 +100 + 85 100 +100 + 75 100 +85 + 75 100 +85 + 75	60 30 50 80 80
		Total Marks:	1200		

MEDICAL TECHNOLOGY GROUP CLASS-XI (PART-I)

Sr.#	Code	Subject	Theory	Practical
1	6002 6006	Urdu / Pakistani Culture (for Foreign Students only)	100	
2	6001	English	100	
3	6092	Islamic Education OR Religious Education (for Non Muslims)	50	
4	6093	Translation of the Holy Quran / Ethics / Civics (for Non Muslims)	50	
		300 Marks each (Opt one Group only) 1. Medical Lab Technology Group 2. Dental Hygiene Technology Group 3. Operation Theatre Technology Group 4. Medical Imaging Technology Group 5. Physiotherapy Technology Group 6. Ophthalmic Technology Group	50 +50 + 50 50 +50 + 100 50 +50 + 100 50 +50 + 100 50 +50 + 100 50 +50 + 100	50 +50 + 50 25 +25 + 50 25 +25 + 50 25 +25 + 50 25 +25 + 50 25 +25 + 50
		Total Marks:	600	

MEDICAL TECHNOLOGY GROUP CLASS-XII (PART-II)

Sr.#	Code	Subject	Theory	Practical
1	6002 6006	Urdu / Pakistani Culture (for Foreign Students only)	100	
2	6001	English	100	
3	6091	Pakistan Studies	50	
4	6093	Translation of the Holy Quran / Ethics / Civics (for Non Muslims)	50	
		300 Marks each (Opt one Group only) 1. Medical Lab Technology Group 2. Dental Hygiene Technology Group 3. Operation Theatre Technology Group 4. Medical Imaging Technology Group 5. Physiotherapy Technology Group 6. Ophthalmic Technology Group	50 +50 + 50 50 +50 + 100 50 +50 + 100 50 +50 + 100 50 +50 + 100 50 +50 + 100	50 +50 + 50 25 +25 + 50 25 +25 + 50 25 +25 + 50 25 +25 + 50 25 +25 + 50
		Total Marks:	600	

COMMRECE GROUP

<u>Sr #</u>	<u>Code</u>	<u>Subject</u>	<u>Part-I</u>	<u>Part-II</u>	<u>Practical</u>
1.	6002 6006	Urdu / Pakistani Culture (for Foreign Students only)	100	100	
2.	6001	English	100	100	
3.	6092	Islamic Education OR Religious Education (for Non Muslims)	50		
4.	6093	Translation of the Holy Quran / Ethics / Civics (for Non Muslims)	50	50	
5.	6091	Pakistan Studies		50	
6.	6070	Principles of Accounting	100	100	
7.	6054	Principles of Economics Commercial Geography in Part-II	75	75	
8.	6058 6095	Principles of Commerce with Banking in Part-II OR Principles of Commerce with Computer Studies in Part-II	75 75	75 50	25
9.	6064	Business Mathematics Statistics in Part-II	50	50	
		Total Marks:	1200		

ISLAMIC STUDIES GROUP

Sr.#	Code	Subject	Part-I	Part-II
1.	6002 6006	Urdu / Pakistani Culture (for Foreign Students only)	100	100
2.	6001	English	100	100
3.	6092	Islamic Education OR Religious Education (for Non Muslims)	50	
4.	6093	Translation of the Holy Quran / Ethics / Civics (for Non Muslims)	50	50
5.	6091	Pakistan Studies		50
6.	6024	Arabic	100	100
7.	6025	Islamic Studies (Fiqh and Usul-e-Fiqh)	100	100
8.	6082 6081	Islamic History and Culture with option-I (The Political & Cultural History of Islam from the beginning of Abbasies to falls of Baghdad) in Part-II. OR Islamic History and Culture with Option-ii (The Cultural system of Islam) in Part-II.	100	100
			600	600
		Total Marks:	1200	

HOME ECONOMICS GROUP CLASS-XI (PART-I)

Sr.#	Code	Subject	Theory	Practical
1.	6002 6006	Urdu / Pakistani Culture (for Foreign Students only)	100	
2.	6001	English	100	
3.	6092	Islamic Education OR Religious Education (for Non Muslims)	50	
4.	6093	Translation of the Holy Quran / Ethics / Civics (for Non Muslims)	50	
5.	6073	Biology	35	15
6.	6074	Chemistry	35	15
7.	6076	Home Management	85	15
8.	6075	Clothing & Textile	85	15
		Total Marks:	600	

HOME ECONOMICS GROUP CLASS-XII (PART-II)

<u>Sr.#</u>	<u>Code</u>	<u>Subject</u>	<u>Theory</u>	<u>Practical</u>
1.	6002 6006	Urdu / Pakistani Culture (for Foreign Students only)	100	
2.	6001	English	100	
3.	6091	Pakistan Studies	50	
4.	6093	Translation of the Holy Quran / Ethics / Civics (for Non Muslims)	50	
5.	6072	Applied Art	85	15
6.	6077	Food & Nutrition	85	15
7.	6078	Child Development and Family Living	85	15
Total Marks:			600	

HUMANITIES GROUP

<u>Sr #</u>	<u>Code</u>	<u>Subject</u>	<u>Part-I</u>	<u>Part-II</u>
1.	6002 6006	Urdu / Pakistani Culture (for Foreign Students only)	100	100
2.	6001	English	100	100
3.	6092	Islamic Education OR Religious Education (for Non Muslims)	50	
4.	6093	Translation of the Holy Quran / Ethics / Civics (for Non Muslims)	50	50
5.	6091	Pakistan Studies		50
6.		Choose Three Elective Subjects (From the List of Elective Subjects)	100+100+100	100+100+100
			600	600
Total Marks:			1200	

LIST OF ELECTIVE SUBJECTS FOR (CLASSES XI & XII)

Sr#	Code	Subjects
1.	6015	History(Opt one only from the following History Subjects) History of Modern World
2.	6031 6007	History of Islam Banu Ummayyah with (Muslim in Spain) in Part-II History of Islam Banu Ummaya with (Abbasi of Baghdad) in Part-II
3.	6009	History of Muslim India
4.	6010	History of Pakistan
5.	6011	Economics
6.	6012	Geography (Marks: Th-I-85+ Th-II-85+Pra-30=200)
7.	6014	Philosophy
8.	6016	Psychology (Marks: Th-I-85+ Th-II-85+Pra-30=200)
9.	6017	Civics
10.	6018	Statistics (Marks: Th-I-85+ Th-II-85+Pra-30=200)
11.	6019	Mathematics
12.	6020	Islamic Studies
13.	6021	Outlines of Home Economics (Marks: Th-I-85+ Th-II-85+Pra-30=200)
14.	6023	Fine Arts (Marks: Th-I-40+ Th-II-40+Pra-120=200)
15.	6024 6034 6032 6096 6033 6038 6039 6040 6028 6029	Arabic/ Persian/ Punjabi/ Saraiki/ Pushto/ Balochi/ Sindhi/ Modern Languages French (Marks: Th-I-100+ Th-II-75+Pra-25=200) German (Marks: Th-I-100+ Th-II-70+Pra-30=200)
16.	6027	English Elective
17.	6037	Urdu Advance
18.	6042	Health and Physical Education (Marks: Th-I-85+ Th-II-85+Pra-30=200)
19.	6043	Education
20.	6045	Sociology
21.	6008	Library Science (Marks: Th-I-85+ Th-II-85+Pra-30=200)
22.	6083	Computer Science (Marks: Th-I-75+ Th-II-75+Pra-50=200)

23.	6041	Geology (Marks: Th-I-85+ Th-II-85+Pra-30=200)
24.	6090	Agriculture (Marks: Th-I-85+ Th-II-85+Pra-30=200)
25.	6079	Nursing (Marks: Th-I-85+ Th-II-85+Pra-30=200)
26.	6022	Music (Marks: Th-I-40+ Th-II-40+Pra-120=200)
27.	6013	Military Science (Marks: Th-I-100+ Th-II-100=200)
28.	6038	Commercial Practice

- 1- پنجاب بورڈز کے زیر انتظام 1996ء سے انٹرمیڈیٹ کا امتحان پارٹ سسٹم کے تحت پارٹ وائز (Part Wise) لیا جائے گا۔ گیارہویں جماعت کا امتحان انٹرمیڈیٹ (پارٹ-I) اور بارہویں جماعت کا امتحان انٹرمیڈیٹ (پارٹ-II) کہلائے گا۔
- 2- پارٹ سسٹم کے امتحان کے لیے پرچہ اے اور پرچہ بی کی بجائے پرچہ I اور پرچہ II کے نام استعمال کیے جائیں گے۔
- 3- پارٹ I کا دوسرا سالانہ امتحان نہیں لیا جائے گا۔
- 4- اسلامک ایجوکیشن کا امتحان پارٹ I میں لیا جائے گا۔ اور مطالعہ پاکستان کا امتحان پارٹ II میں لیا جائے گا۔
- 5- پارٹ I اور پارٹ II میں نمبروں کی تقسیم گورنمنٹ / بورڈ کی وضع کردہ پالیسی کے مطابق ہوگی۔
- 6- پارٹ I میں شریک ہونے والے امیدواران کو بارہویں جماعت میں ترقی دے دی جائے گی اور وہ پارٹ I کے نتیجے کا انتظار نہیں کریں گے۔
- 7- پارٹ I امتحان میں 33 فیصد سے کم نمبر والے مضمون / مضامین میں اگر کوئی امیدوار پارٹ II کے ساتھ دینا چاہے تو اسے ایسا کرنے کی اجازت ہوگی بصورت دیگر ان کا نتیجہ پارٹ I اور پارٹ II میں حاصل کردہ نمبروں کی بنیاد پر مرتب کیا جائے گا۔ پارٹ I اور پارٹ II کو ایک ہی امتحان تصور کیا جائے گا اور امیدوار کی اس امتحان کے تمام مضامین میں شرکت اس کے الاٹ شدہ امتحانی مرکز میں حاضر ہونے پر مشروط ہوگی۔ بیماری یا دیگر کسی بھی وجہ سے کوئی اضافی موقع نہیں دیا جائے گا اور امتحانی مرکز سے غیر حاضری امتحان سے غیر حاضری تصور کی جائے گی۔

- 8- انٹرمیڈیٹ امتحان کا حتمی نتیجہ پارٹ I اور پارٹ II میں تحریری نمبروں کے مجموعہ اور عملی نمبروں میں علیحدہ علیحدہ پاس کرنے کی بنیاد پر ہو گا۔
- 9- "O" Level جی سی ای یا کوئی مساوی امتحان پاس کرنے والے امیدواروں کو IBCC سے مساوی سرٹیفکیٹ حاصل کرنے کے بعد مزید قوانین کے مطابق انٹرمیڈیٹ کا امتحان دینے کی اجازت ہو گی۔
- 10- پارٹ سسٹم کے تحت تحریری اور عملی پرچوں کا دورانیہ بورڈ کی جانب سے تعین کردہ اوقات کے مطابق ہو گا۔
- 11- پارٹ I میں کالجوں میں داخلہ لینے کی آخری تاریخ بورڈ کے جاری کردہ شیڈول کے مطابق ہو گی۔
- 12- پارٹ I اور پارٹ II کا امتحان ہر سال بورڈ کے اعلان کردہ شیڈول کے مطابق ہو گا۔
- 13- پارٹ I کے امتحان کے بعد امیدوار کو صرف نتیجہ کا اطلاع نامہ جاری کیا جائے گا۔ کسی قسم کی پاس کی سند جاری نہیں کی جائے گی۔
- 14- پارٹ I اور پارٹ II کا امتحان مجموعی طور پر پاس کرنے کے بعد سند جاری کی جائے گی۔
- 15- گیارہویں جماعت (فرسٹ ایئر) کے کسی بھی مضمون / مضامین میں 33% سے کم نمبر، غیر حاضر اور صرف رجسٹرڈ ہونے والے طلباء / طالبات سالانہ امتحان پارٹ-I کے نتیجہ (RESULT) کی اشاعت کے 30- ایام کے اندر کسی بھی ادارہ میں دوبارہ داخلہ (RE-ADMISSION) حاصل کر سکتے ہیں۔ ری ایڈمیشن حاصل کرنے والے طلباء / طالبات کا سابقہ رجسٹریشن نمبر ہی برقرار رہے گا اور ادارہ اس امر سے بورڈ کو تحریری طور پر قواعد و ضوابط کے مطابق مطلع کرنے کا پابند ہو گا۔
- 16- گیارہویں جماعت میں پاس طلباء / طالبات اپنا رزلٹ کینسل کروا کر دوبارہ گیارہویں جماعت کا امتحان دے سکتے ہیں۔ ایسے امیدوار کو اپنا مضمون / مضامین / گروپ بھی تبدیل کرنے کی اجازت ہو گی رزلٹ کینسل کروانے والے امیدواران کی پہلے والی رجسٹریشن بحال رہے گی۔ تاہم ریگولر امیدواران کیلئے ضروری ہے کہ وہ گیارہویں جماعت کے رزلٹ (RESULT) کی اشاعت کے 30- ایام کے اندر اپنا رزلٹ / نتیجہ منسوخ / کینسل کروائیں جبکہ پرائیویٹ امیدواران امتحان میں شرکت کے لیے داخلہ فارم جمع کروانے سے پہلے اپنا سابقہ پاس شدہ رزلٹ کینسل کروانے کے پابند ہوں گے۔

-17 صرف ریگولر فیل شدہ طلباء / طالبات پارٹ 1 کا امتحان پارٹ 11 کے ساتھ دیں گے۔ جبکہ ایسے پرائیویٹ امیدوار ان جو اپنا سیکینڈری سکول سرٹیفکیٹ امتحان دو سال قبل پاس کر چکے ہیں۔ پارٹ 1 اور پارٹ 11 کا امتحان ایک ساتھ دینے کے اہل ہوں گے۔

-18 پارٹ 1 کے ایسے ریگولر امیدوار جن کو ناجائز ذرائع استعمال کرنے کے سلسلہ میں ایک امتحان یا دو امتحانات کیلئے نااہل قرار دیا گیا ہو وہ سزا ختم ہونے کے بعد آئندہ سالانہ امتحان میں بطور ریگولر امیدوار پارٹ 1 اور پارٹ 11 کا اکٹھا امتحان دے سکتے ہیں۔ اسی طرح پارٹ 1 کے ایسے پرائیویٹ امیدوار جن کو ناجائز ذرائع استعمال کرنے کی بناء پر ایک امتحان یا دو امتحانات کیلئے نااہل قرار دیا گیا ہو وہ سزا ختم ہونے کے بعد آئندہ سالانہ امتحان میں بطور پرائیویٹ امیدوار پارٹ 1 اور پارٹ 11 کا اکٹھا امتحان دے سکتے ہیں۔ پارٹ 1 کے ایسے ریگولر امیدوار جن کو ناجائز ذرائع استعمال کرنے کے سلسلہ میں تین یا زائد امتحانات کے لیے نااہل قرار دیا گیا ہو۔ وہ سزا ختم ہونے تک پارٹ 11 کا امتحان دینے کے اہل نہیں ہوں گے۔ سزا ختم ہونے کے بعد وہ آئندہ امتحان میں بطور ریگولر امیدوار پارٹ 1 اور پارٹ 11 کا اکٹھا امتحان دینے کے اہل ہوں گے۔ اسی طرح پارٹ 1 کے ایسے پرائیویٹ امیدوار جن کو ناجائز ذرائع استعمال کرنے کے سلسلہ میں تین یا زائد امتحانات کے لیے نااہل قرار دیا گیا ہو وہ سزا ختم ہونے کے بعد آئندہ امتحان میں بطور پرائیویٹ امیدوار پارٹ 1 اور پارٹ 11 کا اکٹھا امتحان دینے کے اہل ہوں گے۔ مزید برآں پارٹ 1 میں ایک سے زائد امتحانات میں نااہل قرار دیے جانے والے امیدوار کا چانس پہلے سالانہ امتحان کے ساتھ دوسرا سالانہ چانس خیالی (Notional) تصور کیا جائے گا۔ پارٹ 11 کے ریگولر اور پرائیویٹ امیدوار جن پر ناجائز ذرائع استعمال کرنے کے سلسلہ میں شکایت درج ہوں گی کو مروجہ قوانین کے تحت نمٹایا جائے گا۔ نیز پارٹ 11 کے ساتھ پارٹ 1 کے فیل شدہ مضامین کا امتحان دینے والے امیدوار پر بھی مروجہ قوانین ہی لاگو ہوں گے۔

-19 ریگولر امیدوار کے لیے لازم ہو گا کہ وہ پارٹ 1 کے امتحان کے لیے کل دیئے گئے لیکچروں میں سے کم از کم 75% میں حاضر رہا ہو۔ اور کالج امتحان برائے استحقاق شمولیت بورڈ امتحان میں کم از کم ای گریڈ حاصل کیا ہو اسی طرح پارٹ 11 کے امتحان کے لیے بھی 75% لیکچروں کی حاضری کی پابندی ہوگی نیز کالج امتحان برائے استحقاق شمولیت بورڈ امتحان میں کم از کم ای گریڈ حاصل کیا ہو۔

- 20- اگر کوئی ادارہ نامساعد حالات کی وجہ سے پارٹ I (گیارہویں جماعت) کے کسی امیدوار کا داخلہ نہیں بھیج سکا تو اس امیدوار کو پارٹ II (بارہویں جماعت) میں پروموٹ کر دیا جائے گا اور اس کا داخلہ پارٹ II (بارہویں جماعت / کمپوزٹ) میں حاضریاں پوری ہونے پر ارسال کرے گا اگر نامساعد حالات کی بناء پر پارٹ II (بارہویں جماعت) میں بھی حاضریاں پوری نہ ہوتی ہوں تو پھر اسے Detain کر کے اس کا داخلہ آئندہ دوسرے سالانہ امتحان میں ارسال کرے گا۔ اسی طرح کسی وجہ سے پارٹ I کے امتحان میں رول نمبر جاری ہونے کے بعد شرکت نہ کر سکنے والے امیدوار کا داخلہ بھی اگلے سال پارٹ II کے ساتھ بھیجا جاسکے گا۔
- 21- انٹرمیڈیٹ پارٹ I میں کی گئی رجسٹریشن پارٹ II کے لیے بھی کارآمد ہوگی۔
- 22- اگر کوئی ریگولر امیدوار پارٹ I کے امتحان میں شریک ہوتا ہے اور نامساعد حالات کی وجہ سے ریگولر تعلیم جاری نہیں رکھ سکتا اور اسکے مضامین پر میکیکل والے نہیں ہیں۔ تو وہ پارٹ II میں بطور پرائیویٹ امیدوار امتحان میں شامل ہو سکتا ہے۔
- 23- دوسرے سالانہ امتحان میں انٹرمیڈیٹ پارٹ I، II کمپائٹڈ امتحان نئے سرے سے (As a Fresh Candidate) دینے کی اجازت ہوگی۔
- 24- انٹرمیڈیٹ امتحان پاس کرنے کے لیے امیدوار کے پارٹ I اور پارٹ II کے مجموعی نمبروں کو ملا کر متعلقہ مضمون میں پاس یا فیل شمار کرنا ہوگا۔ کمپارٹمنٹ کے مضمون / مضامین کو پاس کرنے کے لیے اگلے فوری تین امتحانی مواقع دیے جائیں گے اس شق کے تحت ہر امیدوار کو پارٹ I اور پارٹ II کے امتحانات میں ایک ساتھ شریک ہونا ہو گا تاہم اگر کوئی امیدوار کسی مضمون کے کسی پارٹ میں غیر حاضر رہتا ہے اور دوسرے پارٹ میں وہ اتنے نمبر حاصل کر لیتا ہے۔ کہ اس کے حاصل کردہ نمبر اس مضمون کے دونوں پارٹس کے پاس مارکس کے مجموعے کے برابر یا زیادہ بھی ہو جائیں تو پھر بھی اس کو اس مضمون میں پاس نہیں کیا جائے گا۔ کیونکہ کسی ایک پارٹ میں غیر حاضر رہنے کی بنا پر دوسرے پارٹ میں اس نے کوئی نمبر حاصل نہیں کیا اس لیے غیر حاضر پارٹ کو دوسرے پارٹ کے حاصل کردہ نمبروں کے ساتھ ملایا نہیں جاسکتا اس کو اس پارٹ میں فیل کر دیا جائے گا جس میں وہ غیر حاضر رہا اور اس کو فیل شدہ مضمون / مضامین جن میں وہ غیر حاضر رہا تھا۔ پاس کرنے کیلئے قواعد کے مطابق امتحانی موقع / مواقع دیئے جائیں گے۔

-25 جو امیدوار پارٹ-1 اور پارٹ-II میں حاصل کردہ نمبروں کے حساب سے فیمل ہو گا۔ وہ فیمل شدہ پارٹ کا امتحان دے گا۔ مثلاً اگر ایک امیدوار ایجوکیشن کے مضمون میں پارٹ-I میں 40 نمبر لیتا ہے۔ اور پارٹ-II میں 24 نمبر لیتا ہے تو مجموعہ $24+40=64$ بنتا ہے اس کے پارٹ-II میں 33 فیصد سے کم نمبر ہیں اس لیے اسے صرف پارٹ-II کا ایجوکیشن کا امتحان دینا ہو گا۔

-26 اگر کوئی امیدوار پارٹ-1 کے امتحان میں شرکت کرتا ہے لیکن پارٹ-II کے امتحان میں شرکت نہیں کرتا تو اس کا پارٹ-1 کا نتیجہ اسکے پارٹ-II کے امتحان میں شرکت یا زیادہ سے زیادہ دو سال تک بشرطیکہ جو بھی پہلے واقع ہو محفوظ رکھا جائے گا۔ اس کے بعد یہ نتیجہ منسوخ سمجھا جائے گا۔

- 27
- i. For the purpose of improvement of grade/marks, a candidate will be provided four examination opportunities in current/prevalent syllabi within a period of three years after having passed the SSC or HSSC Examination, in the same subjects/group in which he/she previously passed the examination subject to the condition that he/she has not attained the higher qualification during this period. However, it will be the choice of a candidate whether he/she appears for improvement of marks in any subject/s or Part I or II or as whole with the condition that the candidate can avail these four chances mentioned above till the improvement of the actual result within three years. Once the result of the candidate is improved, he/she will not be allowed to appear again.
 - ii. Next higher qualification means the completion of HSSC or equivalent for candidate appearing to improve SSC results and it is completion of Associate Degree in Arts (ADA)/Associate Degree in Sciences (ADS)/ Bachelor of Studies (BS) or equivalent for the candidates appearing to improve HSSC results.
 - iii. The candidates appearing to improve their overall Grade "E" or "D" are allowed to avail four chances within three years till the achievement of overall Grade "C" (50% marks).
 - iv. The candidate appearing for improvement after a gap of two years from the year of passing of SSC/HSSC will

have to provide an affidavit that he/she has not attained the higher qualification.

- v. The Result Sheet and Certificate issued by the Board must reflect the number of attempts a candidate has availed.
- vi. Other rules of improvement currently in vogue in all Boards of the Punjab will remain the same.
- vii. As already notified by the PBCC, the candidates who had appeared in SSC/HSSC Examination (Annual) Examination 2020 and onward can avail these chances if they have not improved their result previously. The candidates having overall 'E' or 'D' grades may avail their chances accordingly.
 - i. A candidate may appear in any number of additional subject/s along with his/her group of subjects already opted at SSC/ HSSC level in the same Board from where he/she appeared in the SSC/HSSC examination. To qualify the additional subject/s a candidate may avail the same number of attempts as available for the regular candidate to qualify the said examination. -28
 - ii. A candidate desirous of appearing in the subject(s) at the level of HSSC examination having practical shall take admission in affiliated institution as regular student, attend classes and perform practical in laboratory. Institutions shall forward his/her registration and admission as regular student. However, the candidate shall appear in both papers i.e. part-I and Part-II in 1st annual and 2nd annual examinations in the current course not offered by him/her previously.

کوئی بھی امیدوار پارٹ I- کا نتیجہ چھوڑنے (Forgo) کے بعد پارٹ I- اور پارٹ II- کا امتحان اٹھا دے سکتا ہے مگر ایسے امیدوار کو امتحان پاس کرنے کے بعد نمبر بہتر بنانے کا چانس نہیں ملے گا۔ -29

داخلی تخمینہ کا گریڈ اداروں کی طرف سے بارہویں جماعت کے آخر میں منگوا یا جائے گا۔ اور اس کا اندراج پارٹ II- امتحان کے سرٹیفکیٹ میں کیا جائے گا۔ -30

31- پارٹ I کا نتیجہ مرتب کرتے وقت امیدواران کو مجموعی طور پر پارٹ II اور پارٹ III کے امتحان پاس کرنے کے لیے کل نمبروں (یعنی 1200 نمبروں) کا ایک فیصد بطور رعایتی نمبر دیئے جائیں گے۔ یہ رعایتی نمبر بورڈ کے ضابطہ نمبر ۴۶ کی روشنی میں دیئے جائیں گے۔ پارٹ I کا نتیجہ مرتب کرتے وقت کوئی رعایتی نمبر نہیں دیئے جائیں گے۔ تاہم اگر کوئی امیدوار رعایتی نمبر نہیں لینا چاہتا تو وہ اگلے امتحان کے داخلہ فارم جمع کروانے کے شیڈول کے اندر اندر اشٹام پیپر پر ممبرٹیٹ درجہ اول کا تصدیق شدہ حلف نامہ اس امر کا مہیا کرے گا کہ اسے گریس والے مضمون / مضامین میں فیل کر دیا جائے کیونکہ وہ گریس لے کر پاس نہیں ہونا چاہتا۔ نیز یہ کہ اس نے گریس مارکس والے رزلٹ کارڈ پر نہ تو کسی کالج میں داخلہ لیا ہے اور نہ ہی کوئی ملازمت کی ہے نیز یہ بھی کہ آئندہ وہ گریس مارکس والا نتیجہ واپس نہیں مانگے گا۔ اس حلف نامے کے پیش نظر امیدوار کو فیل کر کے فیل شدہ مضمون / مضامین میں دوبارہ امتحان دینے کی اجازت دے دی جائے گی بشرطیکہ امیدوار کے کمپارٹمنٹ والے موقع / مواقع باقی ہو۔ اگر امیدوار کمپارٹمنٹ والا رزلٹ لینا چاہے تو اس کو مجوزہ فیس کی ادائیگی پر نیا رزلٹ کارڈ جاری کیا جاسکتا ہے۔

32- انٹرمیڈیٹ کا کوئی امیدوار کسی ایک بورڈ کے پارٹ I کے امتحان میں شرکت کرنے کے بعد پارٹ II کا امتحان اور پارٹ III کے فیل شدہ مضمون / مضامین کا امتحان مروجہ قواعد و ضوابط کے تحت کسی بھی دوسرے بورڈ میں دینے کا اہل ہو گا۔ لیکن یہ سہولت پورے تعلیمی دورانیہ (اکیڈمک سیشن) میں صرف ایک بار دی جائے گی۔

33- پرائیویٹ امیدواران پارٹ I اور پارٹ II کے امتحانات میں ایسا کوئی مضمون اختیار کرنے کے اہل نہیں ہوں گے جس میں عملی امتحان شامل ہو۔

34- پرائیویٹ امیدوار کیلئے لازم ہو گا کہ اس نے پارٹ I میں شرکت سے پہلے کم از کم ایک سال پیشتر اور پارٹ II کے امتحان میں شرکت سے کم از کم دو سال پیشتر میٹرک کا امتحان پاس کیا ہو۔

35- اگر کوئی ریگولر امیدوار پارٹ II کے سائنس مضامین کا داخلہ بھیجتا ہے اور امتحان کیلئے اہل قرار پاتا ہے۔ لیکن کسی وجہ سے امتحان میں شرکت نہیں کر سکتا۔ وہ سائنس مضامین کے ساتھ پرائیویٹ طور پر امتحان دے سکتا ہے۔ البتہ اسے امتحان میں شرکت کے مواقع (Chance) مروجہ قانون کے مطابق ملیں گے۔ جس چانس کو امیدوار نے کسی وجہ سے خود ضائع کیا ہو وہ چانس استفادہ شدہ تصور ہو گا۔

- 36- سائنس کے مضامین یا آرٹس کے ایسے مضامین جن میں عملی امتحان شامل ہو۔ بحیثیت پرائیویٹ امیدوار اختیار نہیں کیے جاسکتے البتہ جو امیدواران پہلے ریگولر امیدوار کی حیثیت سے امتحان میں شمولیت کر کے تمام مواقع ختم کر چکے ہوں تو وہ پریکٹیکل والے مضامین میں بطور پرائیویٹ امیدوار شامل ہو سکتے ہیں۔
- 37- اگر کسی امیدوار نے سائنس گروپ یا پریکٹیکل کے مضمون / مضامین میں بطور ریگولر پارٹ - I کا امتحان پاس کر لیا ہو لیکن کسی وجہ سے وہ اپنی تعلیم بطور ریگولر طالب علم جاری نہ رکھ سکے ہو تو وہ اپنا پارٹ - I کا نتیجہ نظر انداز کرتے ہوئے آرٹس کے ایسے مضامین جن میں پریکٹیکل نہ ہو پارٹ - I اور پارٹ - II کا امتحان بطور پرائیویٹ امیدوار دینے کا اہل ہو گا۔
- 38- انٹرمیڈیٹ پارٹ - II یا کمپوزٹ سالانہ امتحان میں رول نمبر جاری ہونے کے بعد کئی طور پر غیر حاضر ہونے والے امیدواران کو بھی اس سال کے دوسرے سالانہ امتحان میں شرکت کی اجازت ہو گی۔
- 39- ایسے امیدوار جو O-A Level / ثانویہ عامہ / ثانویہ خاصہ وغیرہ کا امتحان پاس کرنے کے بعد IBCC کی طرف سے جاری کردہ لیٹر کے مطابق ایڈیشنل مضمون / مضامین کا امتحان پاس کرنے کے بعد بورڈ قانون کے مطابق نمبر بہتر / گریڈ بہتر بنانے کے لیے دو سال کے اندر ایک موقع حاصل کر سکتے ہیں۔ مزید براں ایسے امیدواران کو کسی بھی قسم کے رعایتی نمبر نہیں دیئے جائیں گے۔
- 40- انٹرمیڈیٹ پارٹ - II (کمپوزٹ) امتحان میں فیل / غیر حاضر ہونے کی صورت میں دوبارہ صرف پارٹ - I کا امتحان نہیں دیا جاسکے گا۔

نصاب اُردو (لازمی)

پارٹ-1 (برائے گیارہویں جماعت)

100 نمبر

وقت 3:00 گھنٹے

حصہ نثر: کتاب ”سرمایہ اردو“

دیے گئے اقتباس کی سیاق و سباق کے حوالے سے تشریح 15 نمبر

سبق کا خلاصہ 10 نمبر

اسباق پر سوالات 05 نمبر

نظم کی تشریح 10 نمبر

غزل کی تشریح 10 نمبر

نظم کا خلاصہ 05 نمبر

قواعد و انشا

روداد / مکالمہ / روزنامہ 10 نمبر

تلخیص 10 نمبر

درخواست / رسید 10 نمبر

قواعد 15 نمبر

قواعد برائے سال اول

تشبیہ، استعارہ، تلمیح، مطلع، مقطع، قافیہ، ردیف کی تعریف اور مثالیں، تذکیر و تانیث (غیر حقیقی)

روداد / مکالمہ / روزنامہ

درخواست / رسید

تلخیص

نصاب اُردو (لازمی)

پارٹ-II (برائے بارہویں جماعت)

100 نمبر

وقت 3:00 گھنٹے

حصہ نثر: کتاب ’’سرمایہ اردو‘‘

دیے گئے اقتباس کی سیاق و سباق کے حوالے سے تشریح

سبب کا خلاصہ

اسباق پر سوالات

نظم کی تشریح

غزل کی تشریح

نظم کا خلاصہ

قواعد و انشا

مضمون

خط / آپ بیتی

قواعد

قواعد برائے سال دوم

مختلف حروف کا استعمال / مفعول کے ساتھ فعل کی مطابقت رموز اوقاف - چند مصادریں بطور امدادی افعال

سرمایہ اردو (گیارہویں جماعت)

۲۔ پروفیسر ایاز اصغر شاہین

مؤلفین: ۱۔ ڈاکٹر محمد خان اشرف

۳۔ محمد زبیر ساہی

۲۔ پروفیسر افتخار الدین سہیل

ایڈیٹرز: ۱۔ پروفیسر حفیظ صدیقی

ناشر: پنجاب ٹیکسٹ بک بورڈ، لاہور

سرمایہ اردو (بارہویں جماعت)

۲۔ ڈاکٹر عبدالغنی فاروق

مؤلفین: ۱۔ ڈاکٹر علی محمد خان

۳۔ پروفیسر جعفر بلوچ

ایڈیٹرز: پروفیسر محمد ظفر الحق چشتی

ناشر: پنجاب ٹیکسٹ بک بورڈ، لاہور

PAKISTANI CULTURE

(For Foreign Students Only in lieu of Urdu Compulsory)

(There will be two papers of 100 marks each)

(Outlines of tests)

Marks : 100 CLASS XI (PART I) Time : 3 Hours

1. Geography:

- (i) **Land** : Physical features, rivers, canals and communications gateways to Pakistan. Climate, important cities, hill stations.
- (ii) **People**: Population distribution (Rural and Urban) Racial features, religions, dress and customs.
- (iii) Influence of Geography on culture.

2. Islamic Heritage.

- (i) Advent of Islam: The Holy Prophet (حَاتَمُ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ) and the Holy Quran.
- (ii) Islamic Principles and Ideology.
- (iii) **Islam in the sub-continent**: Contribution of Arabs, Turks, Afghans and Mughals in the spread of Islamic culture.
- (iv) **Culture**:- Definition – Islamic Culture – its distinctive features.

3. Archeological Heritage of Pakistan.

- (i) Mohenjodaro (ii) **Taxila** (iii) Gandhara
- (iv) Bhamboore (v) **Mainamati** (East Pakistan)
- (vi) Thatta (vii) **Multan** (viii) Lahore
- (ix) Peshawar.

4. Making of Pakistan. (1857-1947) Political, Ideological and Socio-economical background.

5. (i) National and Regional Languages, their impact on Everyday life
- (ii) Family Pattern in Pakistani Society.

6. Arts and Crafts.

Recommended Books:

1. **Pakistani way of Life**
By Dr. Ishtiaq Hussain Qureshi (Published in London)
2. **The Pakistani way of life and Culture**
By Dr. Abdul Hamid
(M/S Publishers United, Lahore)

Marks : 100 CLASS XII (PART II) Time: 3 Hours

1. Factors Leading to October Revolution of 1958.
2. Broad Features of the Constitution of Pakistan.
3. A detailed study of the Basic Democracies.
4. Economic Resources of Pakistan:
 - i- Products and Minerals
 - ii- Agriculture and Industrial developments.
 - iii- Trade and commerce.
5. Education in Pakistan
 - i- Primary and Secondary
 - ii- Universities.
 - iii- Technical.
6. Pakistan and the World:
 - i- Pakistan and its neighbours – Kashmir, China, Russia, Afghanistan, Bharat, Burma.
 - ii- Pakistan and Muslim countries.
 - iii- Pakistan and the Commonwealth.

Recommended Books:

1. **Pakistani way of Life**
By Dr. Ishtiaq Hussain Qureshi (Published in London)
2. **The Pakistani way of life and Culture**
By Dr. Abdul Hamid
(M/S Publishers United, Lahore)
3. **Pakistan its Resources and Potentialities**
By Dr. M. B. Pithawala
(M/S Publishers United, Lahore)
4. **Pakistan Way of Life & Culture**
By Sher Muhammad Garewal

ENGLISH

Marks: 100	CLASS XI (PART I)	Time: 3 Hours
1.	Book I (Short Stories)	20
2.	Book III (Plays & Poetry) (15+15)	30
3.	Composition:-	
	a) Letter / Application Writing	10
	b) Story Writing (With Choice)	10
4.	Applied Grammar:- (5+5+5)	15
	a) Correct use of Tenses	
	b) Punctuation	
	c) Differentiation in Meaning of Words (Pair of Words)	
5.	Retranslation:-	<u>15</u>
	(A Continuous Prose Passage from Book-I English into Urdu)	Total 100
5.	An unseen Paragraph in English	OR
	Candidate whose medium of examination is English will write an Essay on.....	

Marks : 100	CLASS XII (PART II)	Time: 3 Hours
1.	Book II	30
	(Modern Prose and Heroes) (15+15)	
2.	Novel:-	20
3.	Composition:-	15
	(Descriptive and Narrative Essays consisting of 300 to 400 words)	
4.	Applied Grammar:-	20
	a- Correction of Common Errors	
	b- Direct and indirect narration	
	c- Use of Prepositions.	
	d- Phrases of current usage. (Idioms)	
5.	Translation:-	<u>15</u>
	(A Continuous Prose Passage from Urdu into English)	Total: 100
	OR	

5. Candidate whose medium of examination is English will write a paragraph on.....

English Book – I

Compilers : 1. Bashir Ahmad Chaudhary 2. Qazi Sajjad Ahmad

Editor: Mrs. Shahida Rasul

Publishers: Punjab Text Book Board, Lahore

Intermediate English Book – II

Publishers:

1. Niaz Book Depot 2. Tariq Publishing House 3. Wajid Ali

Author: Dr. Muhammad Sadiq

Editor: Mrs. S.M. Suleri

English Book – III

Compilers: 1. Rafiq Mahmood 2. Bashir Ahmad Chaudhary

3. Qazi Sajjad Ahmad 4. Mian Muhammad Afzal

5. Razzi Abidi

6. Shahid Imtiaz

A New Anthology of Essays

Publisher: Ejaz Publishers

Author: 1. Prof Dr. Imdad Hussain 2. Mrs. S.M. Suleri

Editor: Mrs. S.M. Suleri

A New Anthology of Poems

Publisher: Furqan Brothers

Author: 1. Dr. M.Sadiq 2. Riaz Hussain

Editor: Prof Riaz Hussain

Good By Mr. Chips

Publisher: Oxford University Press

Author: Games Hilton

نصاب تعلیمات اسلامی (لازمی)

وقت 2:00 گھنٹے برائے جماعت گیارہویں 50 نمبر

- باب اول: بنیادی عقائد، توحید، رسالت، ملائکہ، آسمانی کتابیں، آخرت
- باب دوم: اسلامی تشخص، ارکان اسلام، اللہ تعالیٰ اور رسول اللہ
(خَاتَمُ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَعَلَى آلِهِ وَأَصْحَابِهِ وَسَلَّمَ) کی محبت اور اطاعت،
حقوق العباد، معاشرتی ذمہ داریاں
- باب سوم: اسوہ رسول اکرم (خَاتَمُ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَعَلَى آلِهِ وَأَصْحَابِهِ وَسَلَّمَ)، رحمۃ للعالمین،
اخوت، مساوات، صبر و استقلال، غنودرگزر، ذکر
- باب چہارم: تعارف قرآن و حدیث
تعارف قرآن، تعارف حدیث، منتخب آیات، منتخب احادیث

منتخب آیات

- ۱- یا ایہا الذین امنوا اتقوا اللہ و قولوا قولا سدیداً یصلح لکم اعمالکم
ویغفر لکم ذنوبکم ومن یطع اللہ ورسولہ فقد فاز فوزاً عظیماً
- ۲- لقد کان لکم فی رسول اللہ اسوۃ حسنۃ۔
- ۳- واعتصموا بحبل اللہ جمیعاً ولا تفرقوا۔
- ۴- ان اکرمکم عند اللہ اتقاکم۔
- ۵- ان فی خلق السموت والارض واختلاف اللیل والنهار لآیات لا ولی
الالباب۔
- ۶- لن تنالوا البر حتی تنفقوا مما تحبون۔
- ۷- وما اتاکم الرسول فخذوه وما نهاکم عنه فانتهوا۔
- ۸- ان الصلوۃ تنھی عن الفحشاء والمنکر۔
- ۹- ولا تکسب کل نفس الا علیہا ولا تزر وازرة وزر اخری

- ۱۰۔ ان اللہ یا امرکم بالعدل والاحسان۔
 ۱۱۔ انا نحن نزلنا الذكر وانا له لحافظون
 ۱۲۔ یا ایہا الذین امنوا کتب علیکم الصیام۔

احادیث

- ۱۔ انما الاعمال بالنیات وانما لكل امری ما نوى
 ۲۔ انما بعثت لاتمم مکارم الاخلاق۔
 ۳۔ لایومن احدکم حتى اکون احب الیه من والده وولده والناس اجمعین۔
 ۴۔ لایومن احدکم حتى یحب لایخیه ما یحب لنفسه
 ۵۔ المسلم من سلم المسلمون من لسانه ویده۔
 ۶۔ لایرحمه اللہ من لایرحم الناس۔
 ۷۔ کل المسلم علی المسلم حرام دمه وماله وعرضه۔
 ۸۔ ما عال من اقتصد۔
 ۹۔ من سلك طریقا یطلب فیہ علما سلك اللہ به طریقا من طرق الجنة۔
 ۱۰۔ المؤمن اخو المؤمن کجسد واحد ان اشتکى شیئاً منه وجد الم ذلك فی سائر جسده۔
 ۱۱۔ الجنة تحت اقدام الامهات۔
 ۱۲۔ الصدق ینجی والکذب یهلك۔
- مجوزہ کتاب: اسلامیات (لازمی) برائے انٹرمیڈیٹ کلاسز
 مصنفین: پروفیسر حسن الدین ہاشمی پروفیسر محبوب الرحمن شیخ سعید اختر
 مولانا توفیق الحسن رضوی عنایت علی خان مولانا عبدالرشید نعمانی
- ناشر: مکتبہ عالیہ، لاہور (برائے پنجاب ٹیکسٹ بک بورڈ، لاہور)

PAKISTAN STUDIES (Compulsory)

Marks : 50

CLASS XII

Time: 2 Hours

Chapter 1. ISLAM AND PAKISTAN

1. Islam as the Ideological Base of Pakistan
2. The Sunnah of Hazrat Muhammad
(خَاتَمُ النَّبِيِّينَ صَلَّى اللَّهُ عَلَيْهِ وَعَلَى آلِهِ وَأَصْحَابِهِ وَسَلَّمَ)
3. Basic Principles of Islam
4. Definition and Functions of an Islamic Welfare State
5. Basic Principles of an Islamic Welfare State
6. Pakistan as a Modern Islamic State Delineated by Quaid-e-Azam Muhammad Ali Jinnah (رَحْمَةُ اللَّهِ عَلَيْهِ), Allama Muhammad Iqbal (رَحْمَةُ اللَّهِ عَلَيْهِ), Liaquat Ali Khan and Objectives Resolution
7. Objectives Resolution
8. Islam and Modernism
9. Promotion of Peace, Tolerance and Co-Existence in Islam

Chapter 2. POLITICAL AND CONSTITUTIONAL DEVELOPMENT

1. Progress and Problems of Democracy in Pakistan
2. Role of Political Parties in Promoting of Democracy in Pakistan
3. Salient Features of the Constitution of 1956
4. Salient Features of the Constitution of 1962
5. Reasons and Impacts of Separation of East Pakistan
6. Salient Features of the Constitution of 1973
7. Federal Structure under the Constitution of 1973

8. Structure of Provincial Governments
9. Role of Judiciary in Pakistan under the Constitution of 1973
10. Fundamental Rights under the Constitution of 1973
11. Islamic Provisions under the Constitution of 1973
12. Important constitutional Amendments

Chapter 3. ADMINISTRATIVE SYSTEM

1. Functions of Federation and Provinces in the Light of the Constitution of 1973
2. Difference between Function of Central and Provincial Governments
3. Administrative Structure and Functions of Azad Jammu and Kashmir and Gilgit Baltistan
4. Nature of the Relationship between the Federal and Provincial Governments
5. Relations between the Federation and the Provinces
6. Mutual Relationship between Provincial and Local Governments
7. Structure of Different Levels of Local Government
8. Rural Areas
9. Urban Areas
10. Functions of Local Governments at Various Levels
11. Functions of the Metropolitan / Municipal Corporation

Chapter 4. HUMAN RIGHTS

1. Concept of Human Rights
2. Islamic Concept of Human Rights
3. Citizen's Rights in Islam
4. United Nations Universal Declaration of Human Rights

5. Comparison of the Rights Granted under the Constitution of Pakistan and the Human Rights of the United Nations
6. Nature of Basic Human Rights in Pakistan
7. Human Rights at National and International Level

Chapter 5. EDUCATION SYSTEM OF PAKISTAN

1. Concept of Education
2. Goals of Education System of Pakistan
3. Main Features of Education System of Pakistan (Primary, Elementary, Secondary, Higher Secondary and Professional Education)
4. Professional, Technical and Vocational Education in Pakistan.
5. Education System of Pakistan with Reference to General Education
6. Concept of Education in Pakistan
7. Challenges of Education in Pakistan
8. Suggestions for Resolving Educational Problems

Chapter 6. SPORTS AND TOURISM

1. Importance of Sport in a Society
2. Profile of Pakistan in World Sports
3. Indoor Games
4. Indigenous Games of Pakistan
5. Other Games
6. Tourism as an Industry

Prescribed Book:

Pakistan Studies (Urdu & English Version)

Authors:

- 1.Prof. (R) Dr. Sultan Khan
- 2.Prof. Dr. Nouman Aftab Dar
- 3.Prof. Dr. Amir Ali
- 4.Prof. Rana Muhammad Asghar Meo

Published by:

Eagle Book Centre, Mandi Bahauddin

Printed by:

Qudrat Ullah Printers, Lahore

CIVICS (Compulsory)

(For non Muslim Students only in lieu of Islamiat Compulsory)

(There will be one paper of 50 Marks)

(Outlines of tests)

Marks : 50

Time: 2 Hours

The outline of the courses contains the following major themes and their contents:-

CHAPTER – I MAN AND SOCIETY

1. Sociability of man
2. Survival and development
3. Impact of social environment of man
4. Processes of socialization
5. Nature of Associations, their kinds (Voluntary / compulsory) and functions
6. Concepts of Family, Nation, Millat and state
7. Independence of the Individual and society

CHAPTER – II INDIVIDUAL AND STATE

1. Meaning of State and its elements (Population, Territory, Government and Sovereignty)
2. Islamic Concept of State
3. Functions of State (Defence, Law and Order welfare etc.)
4. Organs of Government Legislature. Executive and judiciary
5. Forms of Government
6. Law, Liberty and Equality

CHAPTER – III INDIVIDUAL AND THE WORLD

1. Rationale of International Cooperation, Fields of Cooperation (Political, Economic, Social, Cultural, Educational, Scientific, Technology etc)

2. UN Aims and Object, main organs and specialized agencies (UNE, UNESCO, UNICEF, WHO)

CHAPTER – IV CITIZENSHIP

1. Meaning of Citizenship
2. Modes of acquiring and losing citizenship
3. Status of aliens
4. Qualities of good citizenship
5. Rights and Duties of Citizen in a State
6. Fundamental Human Rights

CHAPTER–V RIGHTS AND DUTIES OF A CITIZEN IN PAKISTAN

1. Rights and Duties of Citizen in Islamic State with special reference to Khutba-e-Hujjat-ul-Wida
2. Constitutional provisions regarding rights and duties of citizen.
3. Rights and Duties of Non-Muslim in Pakistan under the Constitution.

اخلاقیات لازمی (ETHICS)

(غیر مسلموں کیلئے متبادل اسلامیات لازمی)

کل نمبر 50

(برائے جماعت گیارہویں)

وقت 2:00 گھنٹے

- باب اول: مذاہب کا تعارف
 مذہب کی سماجی، فلسفیانہ اور نفسیاتی تفہیم، مذہب پر معاشرے کے اثرات
 وحدت ادیان کا تصور، مذہب اور سائنس
- باب دوم: پاکستان میں مختلف مذاہب
 اسلام، مسیحیت، ہندو دھرم، زرتشتیت، سکھ مذہب
- باب سوم: اخلاقی اقدار
 اجتماعی عدل اور مساوات، معاشرتی ادارے
 کام کی جگہ پر وقت اور پابندی وقت کی اہمیت
- باب چہارم: آداب
 کام کی جگہ کے آداب، انتظامیہ، ماتحت عملہ، خدمت گار، ملاقاتی
- باب پنجم: مشاہیر
 نیلسن منڈیلا، عبدالستار ایدھی، مدرٹریسا، ڈاکٹر محمد یونس
 نجیب محفوظ، جمشید نسرwan جی مہتا۔

مصنفین:- ۱۔ ڈاکٹر عبداللہ شاہ ہاشمی ۲۔ ڈاکٹر محمد شفیع مرزا

ناشر:- آزاد بک ڈپو، لاہور

برائے پنجاب ٹیکسٹ بک بورڈ، لاہور۔

HISTORY

There will be two papers of 100 marks each

آپشن i- تاریخ اسلام

پارٹ- I (جز اول عہد رسالت، جزدوم خلافت راشدہ، جزد سوم بنو امیہ) ۱۰۰ نمبر

پارٹ- II بغداد کی خلافت بنو عباس ۱۰۰ نمبر

یا

اندلس میں مسلمانوں کی حکومت ۱۰۰ نمبر

مجوزہ کتاب: پارٹ- I تاریخ اسلام مطبوعہ سرحد ٹیکسٹ بک بورڈ، پشاور

(جو پنجاب ٹیکسٹ بک بورڈ، لاہور کے سیل ڈپو سے میسر ہے)

آپشن ii- تاریخ اسلامی ہند

پارٹ- I (عہد سلاطین ۷۱۲ تا ۱۵۲۶) ۱۰۰ نمبر

پارٹ- II (عہد مغلیہ ۱۵۲۶ تا ۱۸۵۷) ۱۰۰ نمبر

مجوزہ کتاب: پارٹ- I تاریخ اسلامی ہند (عہد سلاطین)

ناشر: ٹیکنیکل پبلشرز، اردو بازار، لاہور (برائے پنجاب ٹیکسٹ بک بورڈ، لاہور)

آپشن iii- تاریخ پاکستان

پارٹ- I (۱۸۵۷ء تا ۱۹۴۷ء) ۱۰۰ نمبر

پارٹ- II (۱۹۴۷ء تا ۱۹۷۳ء) ۱۰۰ نمبر

آپشن iv- تاریخ جدید دنیا

پارٹ- I (۱۹۰۴ء تا ۱۹۴۵ء) ۱۰۰ نمبر

پارٹ- II (۱۹۴۵ء تا ۱۹۷۵ء) ۱۰۰ نمبر

نوٹ:- اوپر دیے گئے Options میں سے ایک Option لینا ہوگا۔

HISTORY OF PAKISTAN

Marks : 100

PART I (1857 TO 1947)

Time : 3 Hours

CHAPTER – I

TWO NATIONS THEORY IN SOUTH ASIA WITH SPECIAL REFERENCE TO THE IDEAS OF ALBERUNI, MUJADDID ALIF SANI & SHAH WALIULLAH

CHAPTER – II

WAR OF INDEPENDENCE, 1857:

1. Its causes.
2. Main events with special reference to the role of the people of the areas which now constitute Pakistan.
3. Aftermath, Govt. India Act, 1858. India Council Act, 1861.

CHAPTER – III

SIR SYED AHMED KHAN

1. His Political ideas and role: Urdu-Hindi controversy.
2. His Educational & Social Services.

CHAPTER – IV

RELIGIOUS & POLITICAL MOVEMENT

1. Bhramo Samaj
2. Arya Samaj
3. Indian National Congress, 1885.
4. Deoband
5. Nadvatul Ulama

CHAPTER – V

PARTITION OF BENGAL 1905

1. Causes of the Partition
2. Hindu reaction
3. Muslim reaction
4. Its Annulment, 1911

CHAPTER – VI

SIMLA DEPUTATION & THE BIRTH OF ALL-INDIAN MUSLIM LEAGUE:

CHAPTER – VII

POLITICAL STRUGGLE

1. Govt. of India Act, 1892.
2. Minto – Moreley Reforms, 1909
3. Lucknow Pact, 1916
4. Government of India Act, 1919
5. Khilafat Movement
6. Nehru Report

7. Jinnah's 14 points.

8. All-Parties Muslim Conference.

CHAPTER –VIII ALLAMA IQBAL AND HIS ALLAHABAD ADDRESS, 1930.

CHAPTER – IX CHAUDHARY REHMAT ALI & HIS CONTRIBUTION IN THE PAKISTAN MOVEMENT

CHAPTER –X ROUND TABLE CONFERENCE & THE GOVERNMENT OF INDIA ACT, 1935:

1. First Round Table Conference
2. Second Round Table Conference
3. Third Round Table Conference
4. Communal Award.
5. Salient Features of Govr. India 1935 Act.
6. Creation of Sind as a separate Province.

CHAPTER –XI ELECTION OF 1937 & CONGRESS MINISTRIES:

Formation of congress Ministries ; and their anti-Muslim Policies.

CHAPTER –XII REORGANIZATION OF MUSLIM LEAGUE UNDER QUAID-I-AZAM.

CHAPTER –XIII THE LAHORE RESOLUTION, 1940:

CHAPTER –XIV TOWARDS PAKISTAN :

1. Cripps Mission
2. Cabinet Mission
3. Elections of 1945-46.
4. Interim Government
5. Third June, 1947 Plan.
6. Birth of Pakistan

مجوزہ کتاب: تحریک پاکستان برائے انٹرمیڈیٹ کلاسز

مصنفین:- 1- شیخ محمد رفیق 2- عبداللہ ملک

برائے پنجاب ٹیکسٹ بک بورڈ، لاہور۔

Marks : 100 PART II (1947 TO 1973) Time : 3 Hours

**CHAPTER – I ESTABLISHMENT OF PAKISTAN & ITS
EARLY PROBLEMS**

1. Refugee Problems
2. Administrative & Economic Problems
3. Kashmir Issue and Water Dispute.

**CHAPTER – II POLITICAL & CONSTITUTIONAL
DEVELOPMENTS 1947-58**

1. First Constituent Assembly & Objectives Resolution.
2. Second Constituent Assembly: Consitution of 1956 and its working.
3. Formation of One Unit.

CHAPTER – III AYUB ERA:

1. Causes of the imposition of Martial Law, 1958.
2. Constitution of 1962
3. Ayub's Reforms
4. Indo-Pak War 1965

CHAPTER – IV YAHYA'S MARTIAL LAW:

1. Dissolution of One Unit
2. Elections of 1970

**CHAPTER –V CONSTITUTIONAL CRISIS OF 1971 & THE
SEPARATION OF EAST PAKISTAN**

1. Six points of Sheikh Mujeeb ur Rehman
2. Indian Intervention in East Pakistan
3. Army Action
4. Indian Aggression
5. Separation of East Pakistan

CHAPTER –VI PEOPLES PARTY GOVERNMENT :

1. Immediate Problems
2. P.O.Ws. issue
3. Simla Agreement
4. The Constitution of 1973

CHAPTER –VII FOREIGN POLICY:

HISTORY OF MODERN WORLD

Marks : 100 PART I (1904 TO 1945) Time : 3 Hours

1. **Introduction to Modern World (Geo-political)**
2. **Russo-Japanese war 1904-05. Its effects**
3. **Young Turks (1908)**
4. **First World War**
 - i- Causes
 - ii- Effects
5. **Peace Treaties**
 - i- Versailles
 - ii- Sevres and Lausanne
6. **League of Nations:**
 - i- Its formation
 - ii- Objectives
 - iii- Working
 - iv- Its success and failure
7. **Russain Revolution of 1917:**
 - i- Causes
 - ii- Events
 - iii- Effects and Results
 - iv- Role of main leaders.
8. **Rise of Dictatorship in Europe.**
 - i- Italy
 - ii- Germany
 - iii- Spain
9. **Afro-Asian countries:**
 - i- Balfour Declaration and Palestine problem
 - ii- Egypt and Arab Nationalism
 - iii- Syed Jamaluddin Afghani and Pan-Islamism
 - iv- Modern Turkey
10. **Second World War:**
Causes and effects
11. **United Nations:**
 - i- The Atlantic charter
 - ii- Objectives

- iii-** Organs of United Nations (General Assembly, Security Council, International Court of Justice, W.H.O. ILO., UNESCO, UNICEF, F.A.O.

12. Personalities:

Mustafa Kamal Atta Turk, Dr. Sun Yat Sen, Saad Zaghlol Pasha, Roosevelt, Churchill, Quaid-i-Azam, Allama Iqbal, Mr. Ghandi, Maulana Muhammad Ali Johar, Sir Syed Ahmed Khan.

Marks : 100 PART II (1945 TO 1975) Time : 3 Hours

1. Emergence of U.S.A. as world power.
2. Rise of Modern China
3. Freedom movements in Asia, Africa and Middle East.
4. Regional Defence Pacts:
NATO, WARSAW, CENTO, SEATO
5. The Israel and the Arabs
6. The importance of oil and the world politics.
7. Pakistan and the world with special reference to Islamic Countries
8. Indo-Pakistan relations
9. Personalities
 - i-** Mao Tse-Tung
 - ii-** Chau-en-Lai
 - iii-** Dr. Ahmed Soekarno
 - iv-** Jamal Abdul Nasir
 - v-** Shah Faisal
 - vi-** Eishenhower
 - vii-** J.L.Nehru
 - viii-** Ho Chi Minh
 - ix-** Gen. De-Gaulle
 - x-** Marshall Tito
 - xi-** Miss Fatima Jinnah

HISTORY OF MUSLIM INDIA**Marks : 100****PART I****Time : 3 Hours****CHAPTER – I ADVENT OF ISLAM IN INDIA**

Concepts	Contents
<ol style="list-style-type: none"> 1. Advent of Islam being new code of life. 2. Faith, discipline, Jihad, martyrdom 3. Muslim brotherhood 4. Succession 5. Consolidation 6. Tolerance <p>(The historical events will be discussed by emphasizing the above concepts)</p>	<ol style="list-style-type: none"> 1. Advent of Islam in India 2. Advent of Islam in India from the period of Hazrat Muhammad (خَاتَمُ النَّبِيِّينَ صَلَّى اللَّهُ عَلَيْهِ وَعَلَىٰ آلِهِ وَأَصْحَابِهِ وَسَلَّمَ) to 712 A.D. 3. Advent of Islam from 712 A.D. onwards. (Advent of Islam will be discussed in the socio-political perspective – the impact of change will be observed.

CHAPTER – II GHAZNAVI AND GHAURI DYNASTIES

<ol style="list-style-type: none"> 1. Ghaznavi Dynasty: 2. Sultan Mahmood Ghaznavi. 3. Ghauri Dynasty 4. Sultan Shahabuddin Muhammad Ghauri. 	<ol style="list-style-type: none"> 1. Sultan Mahmood Ghaznavi's Rule in the context of: Early life – rise to power. Expeditions and establishment. Socio-cultural impact. Fall of Ghaznavi Dynasty. 2. Sultan Shahabuddin Muhammad Ghauri's rule in the context of: Early life. Rise to power Conquests Socio-cultural impact Fall of Ghauri Dynasty
--	--

CHAPTER – III SLAVE DYNASTY

<p>Turkish Sultans:</p> <ol style="list-style-type: none"> 1. Consolidation of Muslim Rule. 2. Concept of gender equity. 3. Islamization process and some other social achievements during the period of last Turkish Sultan. 	<ol style="list-style-type: none"> 1. Role of Qutubud Din Aibak 2. Altamash and Ghiasud Din Balban consolidating Muslim Rule. Specially socio-political and administrative aspects be emphasized. Recognition by Abbasid. 3. Acceptance of female ruler Razia 4. Sultana her brave personality.
--	---

	5. During Nasir-ul-Din Mehmood's and Ghias-ul-Din Balban's period the important contribution:- i- Islamic provisions ii- Justice and equality iii- Concept of Kinship iv- Crushing rebellion
--	--

CHAPTER – IV KHILJI'S DYNASTY

Khiljis 1. Jalalud Din Khilji 2. Allaud Din Khilji	1. Rise to power 2. Personality as a general and restoration of law and order 3. Expenditions 4. Mangol and Dakan policy 5. Administrative control 6. Fiscal and agricultural reforms
--	--

CHAPTER – V TUGHLAQ RULE

1. Ghazi Malik Ghayasuddin 2. Muhammad Bin Tughlaq 3. Feroze Shah Tughlaq 4. Amir Taimur	1. Rise to power 2. Personality characteristics 3. Innovative schemes in the fields of administration and economy and resultant effects 4. Efforts for an Islamic Welfare State
---	--

CHAPTER – VI SAYYADS AND LODHIS

1. Sayyads Dynasty 2. Social and administrative reforms of Lodhis 3. Fall of Lodhis	1. Rise of Sayyads Dynasty 2. Brief introduction of following rules in the perspective of rise of power reforms and consolidation Bahlol Lodhi Sikandar Lodhi Ibrahim Lodhi 1 st battle of Panipat and fall of Lodhis
---	---

CHAPTER – VII OUTSTANDING FEATURES OF SULTANATE PERIOD

1. Sultanate period – some outstanding features.	1. Role of Ulemas 2. Growth of new language 3. Influences of Islamic Architecture 4. The concept of Welfare state 5. Some glimpses of gender equity
--	---

Marks : 100

PART II

Time : 3 Hours

CHAPTER – VIII THE EMERGENCE OF MUGHAL DYNASTY IN INDIA

Concepts	Contents
Mughal's Emergence: 1. Socio-political background 2. Zahirud Din Babar 3. Conquests	1. Socio-political scenario on the eve of Babar's Invasion. 2. Life in Central Asia and his personality characteristics Conquests of : i- Delhi and Agra ii- Battle of Panipat Kannauj Chanderi

CHAPTER – IX NASIR UD DIN HAMAYUN AND SHER SHAH SURI

1. Nasirud Din Hamayun 2. Sher Shah Suri 3. Recapture of Hamayun	1. Hamayun's accession to power and difficulties. 2. Conflict with Sher Shah and exile-escape to Iran and Afghanistan 3. Personality characteristics 4. Administrative, fiscal and agricultural reforms and works for public welfare 5. The fall of Suri 6. Determination of Hamayun and 7. recapture-battle of Sarhad End of Hamayun rule.
--	--

CHAPTER – X JALAL UD DIN MUHAMMAD AKBAR

1. Accession 2. Expansion of his empire 3. Policies to strengthen the empire 4. Reforms	1. His early life and influence of Bairam Khan. 2. The second battle of Panipat 3. Conquests- Agra, Delhi, Gawaliar, Ajmair, Rajistan, Gujrat, Bengal, Kabul, North Western area, Kashmir, Sindh, Balochistan, Uressa, Kandhar. 4. Religious policies, Din-e-Elahi. 5. Rajput policy 6. Daccan policy 7. Administrative and revenue reforms 8. Art and literature.
--	---

CHAPTER – XI NOOR UD DIN MUHAMMAD JEHANGIR

1. Accession 2. Noor Jehan's role 3. Some other revolts and problems 4. Justice	1. Accession and role of Ulema especially of Mujadid Alif Sani. 2. Khurram's revolt. 3. Characteristics of Noor Jehan's
--	---

5. His commitments with Ulemas	personality and her role in administrative affairs. 4. Khurram's and Mehabbat Khan's revolts. Problems in Daccan. 5. Jehangir's justice-equity for all. 6. Implementation status on the demands of 7. Ulemas in relation to his initial commitments, specially about Din-e-Elahi
--------------------------------	--

CHAPTER – XII SHAHAB-UD-DIN MUHAMMAD SHAHJEHAN

Shahjehan 1. Contributions 2. Expeditions 3. End of Shahjehan's period	1. Revenue collection system 2. Administrative 3. Architecture 4. Expeditions i- Daccan ii- Central Asia War of succession among his sons and his confinements
---	--

CHAPTER – XIII MOHIY-UD-DIN AURANGZEB ALAMGIR

1. Accession 2. Contributions	1. His early life and accession. 2. Islamization process and its impacts 3. Facing revolts of Jats, Sutnamis, Bandhalays, Sikhs, Rajputs, Marhatahs 4. Annexation of Daccan States 5. His personal characteristics
----------------------------------	--

CHAPTER – XIV OUTSTANDING FEATURE OF MUGHAL PERIOD

1. Educational contribution 2. Reforms 3. Contribution towards world of Arts	1. Introducing a new language. 2. Improving literacy. 3. Expansion of general and specialized education. 4. Anatomy of educational institutions. 5. Reforms in administrative set-up. 6. Revenue and fiscal reforms 7. Architecture. 8. Paintings and music.
--	---

مجوزہ کتب: تاریخ تعلیم اور عہد سلاطین برائے انٹرمیڈیٹ کلاسز

مصنفین:- 1- شیخ محمد رفیق 2- عبداللہ ملک

برائے پنجاب ٹیکسٹ بک بورڈ، لاہور۔

Marks : 100

Time: 3 Hours

CURRICULUM OF ISLAMIC HISTORY

Sequence Chart: Paper-I Per-Islamic Arabia

Chapter-I

OBJECTIVE	CONCEPTS	CONTENTS	WEIGHTAGE	RESOURCE MATERIAL
COGNITIVE 1. Knowledge of the Conditions of Per-Islamic Arabian society. 2. Knowledge of miseries of Arabs before the birth of Holy Prophet (ﷺ) (وصلى الله عليه وعلى آله وصحبه وسلم).	Ignorance corruption Morality Shirk, Murder Endless-war	The land and people of Arabia, Religious political, Social Economic Cultural Conditions.	1. Per-Islamic Arabia, 5%. 2. Makkah life 12% out of 33. 3. Madina life 16% out of 33.	A. 1. Map of the world showing the location of Arabia. 2. Map of Asia. 3. Map of Arabia. 4. Map of Africa.
	Good-qualities (Heroism Hospitality Literary qualities). Memory Racial and Linguistic Pride).			B. 1. Group discussions 2. Seminars

AFFECTIVE

- To create feelings of repulsion against all that is evil and immoral.
- Appreciation of the re-deeming features of the Arabian Society; them Psychomotor Skill to draw map of Arabia.

EARLY LIFE OF RASULULLAH

(عائمه النبیین صلی اللہ علیہ وسلم علی اہل بیتہ صلی اللہ علیہ وسلم)

		Chapter-II		
OBJECTIVE	CONCEPTS	CONTENTS	WEIGHTAGE	RESOURCE MATERIAL
COGNITIVE				
1. Knowledge of the early life of Rasulallah (عائمه النبیین صلی اللہ علیہ وسلم علی اہل بیتہ صلی اللہ علیہ وسلم)	1. Truthfulness	1. Birth and family background of Rasulallah		Genealogy of Rasulallah upto Adnan
2. Knowledge of his family background.	2. Trust worthiness	(عائمه النبیین صلی اللہ علیہ وسلم علی اہل بیتہ صلی اللہ علیہ وسلم)		Picture of Jabl-e- Noor declaration Picture of Cave Hira.
3. Acquaintance with the noblest virtues of Rasulallah (عائمه النبیین صلی اللہ علیہ وسلم علی اہل بیتہ صلی اللہ علیہ وسلم)	3. Care for oppressed			
4. Significance of the first revealed word.			2. Before of NUBUWAH	Picture of Place of birth of Rasulallah (عائمه النبیین صلی اللہ علیہ وسلم علی اہل بیتہ صلی اللہ علیہ وسلم)
AFFECTIVE				
1. To inculcate reverence and affection for Rasulallah (عائمه النبیین صلی اللہ علیہ وسلم علی اہل بیتہ صلی اللہ علیہ وسلم)				
2. Appreciation of the virtues of Rasulallah (عائمه النبیین صلی اللہ علیہ وسلم علی اہل بیتہ صلی اللہ علیہ وسلم)				
3. To inculcate spirit to follow Rasulallah (عائمه النبیین صلی اللہ علیہ وسلم علی اہل بیتہ صلی اللہ علیہ وسلم)			3. After declaration of NUBUWAH	Discussion Seminars

PSYCHOMOTOR

1. Collect relevant information
2. Skill to make chart.

PROGRESS OF ISLAM AT MAKKAH

Chapter-III

OBJECTIVE	CONCEPTS	CONTENTS	WEIGHTAGE	RESOURCE MATERIAL
COGNITIVE 1. Knowledge of the various aspects of the Makkah life of Rasullullah (عقائد الأوثق صلى الله عليه وعلى آله وأصحابه وصحبه) 2. Acquaintance with essence of the teaching of Islam. 3. Awareness of the great sufferings of the early converts 4. Significance of Miraj.	1. Perseverance 2. Forbearance, Unity Cohesion, Leadership, Elevation of Human-capacities, fulfillment of pledges.	Beginning of Mission and opposition from Quraysh. Early Muslims and their sufferings and its importance. Emigrations to Habscha. Journey to Taif, Miraj.		1. Charts Chronological order of events from early life 2. Maps showing the important areas and cities and tribes of the peninsula. 3. Panel discussion and Seminars.
AFFECTIVE 1. Appreciation for 'Tableegh'. 2. To create spirit of self-sacrifice and self revival. 3. To prepare for undergoing sufferings for righteous		The pledges of Aqaba Importance Rasullullah (عقائد الأوثق صلى الله عليه وعلى آله وأصحابه وصحبه) مآ فضائل رسوله		
PSYCHOMOTOR 1. Ability to pick out selected information skill to draw maps of Saudi Arabia and Habscha.		Makkah life, Teachings		

PROGRESS OF ISLAM AT MADINA

Chapter-IV

OBJECTIVE	CONCEPTS	CONTENTS	WEIGHTAGE	RESOURCE MATERIAL
COGNITIVE				
1. Knowledge of about Hijrat.	Hijrat and Muwakkhat.	Hijrat and its significance.		The first written constitution of the world.
2. Understanding, importance of Brotherhood.	Jihad	Brotherhood		
3. Acquaintance with the Ghazwat.	Dignity of Labour	i- Mithaq of Madina ii- Battle of Badr,		
4. Knowledge about charter and Treaties.	Adlo Ihsan	Uhad, Ahzab, Khyber, Hunain, Tabuk.		
AFFECTIVE				
1. Appreciation of the glorious services of the Early Muslims towards the cause of Islam under adverse circumstances.	Forgiveness	Relations with Jews, Bait-e-Rizwan conquer of Makkah		
2. Appreciation of Brotherhood.	Duties towards Allah, Right & Duties of human beings.	Message to rulers, Year of deputations, farewell (pilgrimage) the last sermon and its significance.		
3. Awareness of obedience and loyalty to the commands of ALLAH and his Prophet (ﷺ)				

PSYCHOMOTOR

1. Ability to draw maps of all the battles.

SEERAT-UL-NABI
(حکمت النبی صلی اللہ علیہ وسلم علی الرضا علیہ وسلم)

Chapter-IV

OBJECTIVE	CONCEPTS	CONTENTS	WEIGHTAGE	RESOURCE MATERIAL
COGNITIVE				
1. Knowledge of the various aspects of the personality of Rasoolullah (حکمت النبی صلی اللہ علیہ وسلم علی الرضا علیہ وسلم)	Equality,	(i) As a prophet. (ii) As a perfect man		Book on Seerat-un-Nabi. (حکمت النبی صلی اللہ علیہ وسلم علی الرضا علیہ وسلم)
2. Knowledge of his contribution towards the betterment of human society.	Fraternity, Care for slaves.	(iii) As a founder of Ummah (iv) As an Administrator, Preacher and Educator.		
3. Recognition of Holy Prophet (حکمت النبی صلی اللہ علیہ وسلم علی الرضا علیہ وسلم)	Emanicipation slave. Education.	(v) Law giver (vi) As a general (vii) As a statesman		
4. Knowledge of Islam as a complete code of life.	Human relations.			
AFFECTIVE				
1. Appreciation for the equality and fraternity preached by the Holy Prophet (حکمت النبی صلی اللہ علیہ وسلم علی الرضا علیہ وسلم)	Transformation of society.			
2. Appreciation for the status of woman in Islam.	Uplift of status of women and other oppressed sections of the society.			
3. Learning to lead life according to Sunnah.				
PSYCHOMOTOR				
1. Ability to acquaint Seerat-un-Nabi. (حکمت النبی صلی اللہ علیہ وسلم علی الرضا علیہ وسلم)				
2. Capability to deliver speeches on Seerat-un-Nabi. (حکمت النبی صلی اللہ علیہ وسلم علی الرضا علیہ وسلم)				
3. Ability to pickout relevant information on Seerat-un-Nabi. (حکمت النبی صلی اللہ علیہ وسلم علی الرضا علیہ وسلم)				

PART-I KHILAFAT-E-RASHIDAH

Chapter-IV

OBJECTIVE	CONCEPTS	CONTENTS	WEIGHTAGE	RESOURCE MATERIAL
COGNITIVE				
1. Knowledge of the status of the companions of Rasulullah (مَنَافَرِ الرَّسُولِ صَلَّى اللهُ عَلَيْهِ وَسَلَّمَ)	Khilafat (Shura)	Khilafat-e-Rashidah	1. Being one portion of three parts 33/100 are being assigned to this part.	1. CHARTS (a) Chronological order of events under the Caliphs.
2. Knowledge regarding the succession of the Pious Caliphs.	Spirit of Jihad		2. Personalities 9/33	(b) Conquest and expansion in chronological order.
3. Knowledge about the sacrifices and efforts of the Caliphs towards Jihad, establishment of righteous society and welfare state.	3. Preaching of Islam		3. Jihad and expansion 8/33	
4. Knowledge about the propagation of Islam and expansion of the territories, during Khalafat-e-Rashidah.	Spiritual and moral uplift of the society.		4. Administration 8/33	2. MAPS (a) Showing routes of Jihad & conquests through arrows.
5. Knowledge about the working of shura.	Socio-economic Justice.		5. Preaching of moral and spiritual values 8/33	(b) Showing period wise conquests of areas and their consolidation.
AFFECTIVE				
1. Appreciation of the Spirit of Jihad.				3. Group discussions.
2. Appreciation of the moral and spiritual up-lift of the society during Khilafat-e-Rashidah.				
3. Appreciation of the efforts of the Pious Caliphs towards the Government machinery.				
PSYCHOMOTOR				
1. Drawing maps and charts.				
2. Ability to participate in the group discussion.				
3. Ability to discuss salient features of Khilafat-e-Rashidah.				

PART-III UMAPYYA

OBJECTIVE	CONCEPTS	CONTENTS	WEIGHTAGE	RESOURCE MATERIAL
COGNITIVE				
1. Knowledge of Emergence of Umayyas.	1. Emergence of Umayyas	Umayyas of Damascus.	Paper-I consisting of three parts.	Charts
2. Information about the important personalities of the period.	2. Unity of Ummah			(iv) Showing routes Jihad expeditions through arrow.
3. Knowledge about the expansion of Islam in three continents.	3. Spirit of Jihad	Establishment Rise, development and decline of Umayyas of Damascus.	Overall 30% weightage is given to Umayyas of Damascus details of which are as follows:	(b) Showing Period wise conquests of areas and their consolidation
4. Knowledge about the various disciplines during Umayyas.	4. Preaching of Islam		(i) Personalities of rulers Governor's	
	5. Islamic Literature		Scholars and scientists 10/33	
	6. Establishment of comprehensive system of administration		(ii) Conquests and consolidation 5/33	
AFFECTIVE				3. Group discussion.
1. Appreciation of the Contribution by Umayyas towards Jihad conquests and development of Islamic literature.			(iii) Administration 5/33	
PSYCHOMOTOR				
1. Drawing maps and charts.			(iv) Reforms 5/33	
2. Ability to participate in Panel discussions			(v) Expansion of Islam 8/33	
3. Ability to consult original historical sources.				

PART-II OPT (1) ABBASI OF BAGHADAD

Marks: 100

Time: 3 Hours

OBJECTIVES	CONCEPTS	CONTENTS	WEIGHTAGE	RESOURCE MATERIAL
COGNITIVE				
1. Knowledge of emergence of the Abbasies.	1. Khilafat. 2. Importance of early Abbasi Caliphs in Islamic History	Abbasi Caliphs of Baghdad	1. Personalities Rulers Ulemas Scholars, 30%	1. Charts a. Chronology of events b. Chronology showing famous Ulema, Fuqha Muhaddithin Scientists and other writes.
2. Knowledge about the important personalities of the period.	3. Relations with Byzantino Empire The Crusades.		2. Administration / Reforms 20% 3. Cultural, literary & Science fields 16%. 4. Orthodox Scholar innovators 12%. 5. Relation with Christian powers 12%. 6. Integration of Ummah.	2. MAP Maps showing routes and battle fields during the period of Salah Uddin Ayyubi.
3. Knowledge about literary, cultural and scientific development during the period.	4. Development in the various fields of Knowledge.			3. Panel discussions
AFFECTIVE				
1. Appreciation of the role of the Caliphs as patterns of arts, literature and sciences.				
PSYCHOMOTOR				
1. Drawing Maps and Charts.				
2. Ability to participate in Panel discussions.				
3. Ability to consult original historical source.				

PART-II OPT (II) MUSLIMS IN SPAIN

Marks: 100

Time: 3 Hours

OBJECTIVES	CONCEPTS	CONTENTS	WEIGHTAGE	RESOURCE MATERIAL
COGNITIVE 1. Knowledge of the circumstances leading to the invasion and conquest of the peninsula. 2. Knowledge about the establishment of the Umayyas rules in Spain. 3. Knowledge about the spirit of jihad which led to the continuous warfare against the Christian of the North and even beyond the Pyrenees. 4. Knowledge of the important personalities.	1. Invasion	1. Umayyas of Spain	1. PERSONALITIES	1. Charts
	2. Establishment of Umayyas rule.	2. Causes of their decline.	a. Rulers b. Generals c. Ulama d. Scholars e. Architects f. Scientists 20%	a. Chronology of events b. Chronology and expansion in chronological order.
5. Spirit of toleration towards Jews and Christian.	6. Architecture.	7. Literature.	2. MAP	a. Showing routes of Jihad expeditions through arrows. b. Showing period wise consequents of areas.
6. Preaching of Islam	8. Scientific Development		3. Administration 10% 4. Reforms 12% 5. Preaching of Islam 12% 6. toleration towards non-Muslims 8% 7. Cultural Literary and scientific activities 10% 8. Spirit of Jihad 10% 9. Impact of Islam on European civilization 10%	3. Group discussions.
AFFECTIVE 1. Appreciation of the contribution by the Umayyas Caliphs of Spain towards jihad and assimilation of knowledge.				
PSYCHOMOTOR 1. Drawing Maps and Charts. 2. Ability to participate in Panel discussion and debates. 3. Ability to consult original historical source.				

ECONOMICS

Marks : 100

PART I

Time : 3 Hours

CHAPTER – I NATURE AND SCOPE OF ECONOMICS Weightage: 15%

Concepts	Contents
1. Nature and scope of Economics 2. Definition and law of Economics	A. Introduction 1. Wants and satisfaction 2. Goods and services 3. Utility and scarcity 4. Economics problems and its nature 5. Definition by:- a- Adam Smith b- Alfred Marshall c- Loonier Robbins B. Meaning of: 1. Micro Economics, Macroeconomics, positive and normative economics. 2. Economic laws and their nature

CHAPTER – II CONSUMER’S BEHAVIOUR AND ITS ANALYSIS

Weightage: 10%

Concepts	Contents
1. Consumer’s behavior. 2. Utility approach. 3. Indifference curve.	1. Definition 2. Meaning 3. Rationale 4. The Law of diminishing marginal utility with table and graph. 5. The law of equimarginal utility or law of substitution with formula and diagram. 6. Indifference curve i- Definition and Characteristics (graphical presentation)

**CHAPTER – III BASIC TOOLS OF STATISTICS AND MATHEMATICS
IN ECONOMICS**

Weightage: 5%

Concepts	Contents
1. Basic tools of statistics and Mathematics in economics 2. Equation	ii. Variables: Continuous, discontinuous, independent, dependent. i. Liner equation with group.

	iii. Quadratic equation iv. Simultaneous equations v. Statistical data its collection and tabulation.
--	---

CHAPTER – IV DEMAND**Weightage: 10%**

Concepts	Contents
1. Law of demand and practical uses 2. Demand elasticity	1. Definition 2. Law of demand 3. Demand function and functional equation of demand 4. Movement along with demand curve and shift in demand curve 5. Price elasticity of demand (Arc & point) and methods of measurement 6. Concepts of income elasticity and cross-elasticity of demand 7. Factors influencing the elasticity of demand 8. Practical uses of the concept of elasticity of demand

CHAPTER –V SUPPLY**Weightage: 10%**

Concepts	Contents
1. Law of supply and practical uses 2. Elasticity	1. Definitions stock and supply 2. Law of Supply 3. Supply functions and functional equation of supply 4. Movement along with supply curve and shift in supply curve 5. Elasticity of supply and its measurement. 6. Factors influencing the elasticity of supply 7. Practical uses of the concepts

CHAPTER –VI EQUILIBRIUM**Weightage: 10%**

Concepts	Contents
1. Equilibrium in demand and supply etc.	1. Concept of equilibrium 2. Equilibrium of demand and

	supply 3. Equilibrium in price and equilibrium in out put 4. The effects on equilibrium in price and output put due to change in demand and supply
--	--

CHAPTER –VII THEORY OF PRODUCTION **Weightage: 10%**

Concepts	Contents
1. Theory of production 2. Factors of Production	1. Meaning of production 2. Characteristics and importance of FOP. 3. Factors of production:- (a) Land (b) Labour (c) Capital (d) Organization

CHAPTER –VIII SCALES OF PRODUCTION AND LAWS OF RETURNS

Weightage: 5%

Concepts	Contents
1. Scales of production 2. Laws of Returns	Meaning 1. Scale of production 2. Economies and diseconomies internal and external 3. Merits and demerits of large scale (increasing, constant, diminishing) and their relation with the cost of production 4. Laws of production (increasing, constant, diminishing) and their relation with the cost of production

CHAPTER –IX COST OF PRODUCTION

Weightage: 5%

Concepts	Contents
1. Cost of production 2. Relationships of different cost curves	1. Definition, classification, Fixed and variable. 2. Total, average and marginal cost 3. Relationship between total, average and marginal cost.

CHAPTER –X REVENUE ANALYSIS**Weightage: 5%**

Concepts	Contents
1. Application of Revenue curves in price and output determination	1. Definition 2. Total, marginal and average revenue under perfect competition and monopoly 3. Price and output determination and short and long run under perfect competition and monopoly

CHAPTER –XI MARKET**Weightage: 5%**

Concepts	Contents
1. Market Kinds of market	Meaning and significance of market 1. Perfect competition and monopoly 2. Short run and long run in perfect competition and monopoly

CHAPTER –XII DISTRIBUTION : FACTORS PRICING**Weightage: 10%**

Concepts	Contents
1. Factors pricing 2. Productivity	1. Rent, meaning, Kinds and Ricardian theory of rent 2. Wages definition, meaning, and Kinds. Marginal productivity theory. 3. Interest: Meaning and Kinds 4. Profit : meaning and kinds 5. Difference between profit and interest

Recommended Book: Economics Part-I**Authors:** 1) Mahmood Ahmad Ch.

2) Azra Ismat Ullah Awan

Editors: 1) Rubina Qamar Qureshi

2) Muhammad Ikram Rana

Publisher: Muhammadi Publisher & Stationers, Lahore.

Marks : 100

PART II

Time : 3 Hours

MACRO ECONOMICS**CHAPTER –I NATIONAL INCOME****Weightage: 10%**

Concepts	Contents
1. National Income 2. When saving is equal to investment 3. Flow of National income 4. Per capita income	1. G.N.P, N.N.P, G.D.P, National Income 2. Methods of computing national income I- Product method. II- Income methods. III- Expenditure methods. IV- Circular flow diagram. V- Concept of equilibrium: $Y=C+S$ $Y=C+I$ VI- Income where $S=1$.

CHAPTER –II MONEY**Weightage: 10%**

Concepts	Contents
1. Barter system 2. Money 3. Value of money 4. Credit cards	1. Barter system and its difficulties 2. Evolution of money 3. Definition of money 4. Functions of money 5. Kinds of money 6. Instruments of money: (credit cards ATM, Traveler Cheques) 7. Demand for and supply of money 8. Value of money 9. Quantity theory of money (Fisher's equation)

CHAPTER –III BANKS**Weightage: 10%**

Concepts	Contents
1. Bank 2. Commercial Bank 3. Interest	1. Definition of Bank 2. Kinds and functions of Banks 3. Commercial Banks and their functions with particular

	reference to credit creation 4. Definition of interest 5. Interest free Banking in Pakistan 6. Case study of Malaysia, Kingdom of Saudi Arabia.
--	--

CHAPTER –IV PUBLIC FINANCE**Weightage: 10%**

Concepts	Contents
1. Private finance 2. Public finance 3. Tax revenue 4. Public revenue in Pakistan	1. Public Vs private finances 2. Public revenue and tax culture I- Tax and non-tax revenue II- Principles of taxation III- Kinds of taxation. a- Direct and indirect tax b- Progressive and proportional c- An analysis of public revenue in Pakistan

CHAPTER –V INTERNATIONAL TRADE**Weightage: 10%**

Concepts	Contents
1. Foreign trade 2. Domestic trade 3. Balance of payment 4. Balance of trade 5. Meaning and improving role 6. Globalization	1. Differentiation between domestic and foreign trade 2. Advantage and disadvantages of international trade 3. Classical theory of international trade 4. Balance of trade vs. Balance of payment 5. Globalization MNCs, TNCs, WTO.

CHAPTER –VI INTRODUCTION TO PAKISTAN ECONOMY Weightage: 3%

Concepts	Contents
1. Meaning of economy of 2. Pakistan Components of Pakistan economy	1. Agriculture Sector 2. Trade and Industrial sector 3. Involvement of Stock Exchange 4. Education and Health Sector

CHAPTER –VII NATIONAL INCOME OF PAKISTAN Weightage: 10%

Concepts	Contents
National Income GNP, GDP, NNP Product, personal Income disposable Total Income	1. Its size and sectoral contribution 2. Difficulties in measurement 3. Causes of low per capita income 4. Tax Culture

CHAPTER –VIII ECONOMIC DEVELOPMENT AND PLANNING**Weightage: 10%**

Concepts	Contents
1. Economic Development and Planning	1. Concept of economic development 2. Problems of under development 3. Factors influencing development 4. Quality of life (living standard) with reference to Pakistan 5. Planning in Pakistan with reference to current five years plan 6. Importance and problems in agricultural and industrial sectors of Pakistan and their solution 7. Development of Industries

CHAPTER –IX COMMUNICATION AND HUMAN RESOURCE DEVELOPMENT**Weightage: 7%**

Concepts	Contents
1. Communication and its significance 2. Mobility of labour population 3. Unemployment 4. Population education	1. Traditional communication system.e.g. roads, and transportation Dry-ports, seaports etc. 2. Modern approaches 3. Computers and Information i. Technology Motorway ii. Role of communication in Pakistan's iii. prosperity Factors affecting productivity of 4. labour Mobility of labours its factors 5. Problems of high rate of population 6. growth and need of population

	<p>education</p> <p>7. Population growth its effects and factors. Comparison with LPCs and MPCs.</p> <p>Labour force, its problem, facts and</p> <p>8. its remedies.</p> <p>Problems of unemployment and</p> <p>9. under-employment</p>
--	---

CHAPTER –X BANKING IN PAKISTAN**Weightage: 5%**

Concepts	Contents
1. Significance and functions of banks in Pakistan	<p>1. Commercial Banks and their functions</p> <p>2. Role of banking system in economic development</p> <p>3. State Bank of Pakistan, its functions and importance.</p> <p>4. Money market capital market</p> <p>5. E-Commerce</p> <p>6. Inflation Definition and types / causes, consequences and remedies with reference to Pakistan</p>

CHAPTER –XI PUBLIC FINANCE OF PAKISTAN**Weightage: 5%**

Concepts	Contents
<p>1. Public Finance</p> <p>2. Revenue</p> <p>3. Zakat</p> <p>4. Ushr</p> <p>5. Charity</p>	<p>1. Kinds of taxation in Pakistan</p> <p>2. Sources of revenue</p> <p>3. Heads of expenditure of Federal and Provincial governments with reference to latest budget.</p> <p>4. Zakat and its distribution</p> <p>5. Ushr and charity as instruments of source of revenue and Social Justice.</p>

CHAPTER –XII FOREIGN TRADE OF PAKISTAN**Weightage: 5%**

Concepts	Contents
<p>1. Exports</p> <p>2. Import</p> <p>3. Regional Organization</p>	<p>1. Major exports of Pakistan</p> <p>2. Major imports of Pakistan</p> <p>3. Balance of payments position of</p>

4. International Organization	Pakistan
5. Balance of payment	4. Regional and international Organization their role towards Pakistan e.g. ECO, SAARC, WTO.
6. Foreign exchange rates.	5. Foreign exchange rates.

CHAPTER –XIII ECONOMIC SYSTEM OF ISLAM Weightage: 5%

Concepts	Contents
1. Islamic Economic System. 2. Different economic system.	1. Elaboration of basic characteristics and instruments of Islamic 2. Economic System. 3. Interest free Banking. 4. Equality. 5. Justice (Social and Economies) 6. Goodness and Ehsan. Elimination of wealth concentration 7. and wasteful consumption. 8. Austerity/self contentment. Implication of ostentation and 9. Hoarding. Comparison between capitalism, socialism and Islamic system.

Recommended Book: Economics Part-II

Authors: 1) Mian Muhammad Akram

2) Mahmood Ahmad Ch.

Editor: Rubina Qamar Qureshi

Publisher: Imtiaz Book Depot, Lahore.

GEOGRAPHY

Distribution of Marks:

Part-I (Class-XI) Part-II (Class-XII)

Theory: 85 Theory: 85

Practical: 30

Total Marks: 200

Marks: 85

(PART-I) CLASS-XI

Time:3:00 Hours

PHYSICAL GEOGRAPHY

1. **Physical Geography:**
 - a) Definition, history and scope of Geography
 - b) Introducing Physical Geography
 - c) Branches of Physical Geography
 - d) Universe, Solar system and the Earth
 - e) Land and Water distribution
2. **Structure of the Earth and Lithosphere:**
 - a) Internal structure of the Earth
 - b) Plate Tectonics
 - c) Volcanism
 - d) Earthquakes
 - e) Rocks
3. **Landforms:**
 - a) Major Landforms: i: Mountains ii: Plateaus iii: Plains
 - b) Denudation i: Weathering ii: Mass Wasting
 - c) Landforms made by river d) Landforms made by glaciers
 - e) Landforms made by wind f) Landforms made by waves
4. **Atmosphere:**
 - a) Introduction:
 - i: Composition of atmosphere
 - ii: Structure of atmosphere
 - b) Atmosphere Temperature
 - i: Insolation
 - ii: Horizontal distribution of temperature
 - iii: Vertical distribution of atmosphere
5. **Global Circulation:**
 - a) Atmospheric pressure
 - b) Pressure distribution over the earth surface
 - c) Winds
 - i: Relationship between pressure and wind
 - ii: Planetary winds
 - iii: Seasonal winds
 - iv: Local winds
 - d) Air masses and their types
 - e) Fronts and their types
 - f) Cyclones and their types

- 6. Atmospheric Moisture:**
 a) Humidity b) Clouds c) Precipitation
- 7. Ocean Movements:**
 a) Currents b) Tides c) Waves
- 8. Climatic Regions:**
 a) Introduction
 b) Major Climatic Regions
 i: Equatorial Climatic Region ii: Tropical Climatic Region
 iii: Temperate Climatic Region iv: Polar Climatic Region

LIST OF PRACTICALS FOR CLASS XI (PART-I)

1. **Location**
2. **Directions** i: Methods of finding directions
3. **Scale** i: Types of scale
 ii: Measurement of distance between two points by
 using map scale
4. **Introduction to GIS, GPS and Remote Sensing**
5. **Relief Features** i: Methods of showing relief
6. **Convectional Signs**

Marks: 85

**(PART-II) CLASS-XII
 HUMAN GEOGRAPHY**

Time:3:00 Hours

1. **Human Geography:**
 (a) Definition and scope of Human Geography
 (b) Branches of Human Geography
 (c) Earth as home for human being
2. **Population:**
 (a) Density and Distribution
 (b) Population growth
 (c) Structure and composition of population
 i. Age Group ii. Male-Female Ratio
 (d) Population Change
 i. Natural Increase (Birth/Deaths)
 ii. Migration (Immigration/Emigration)
 (e) Types of Migration i. Factors of Migration
3. **Human Settlements:**
 (a) Introduction
 (b) Rural Settlement

- i. Nucleated and Dispersed ii. Forms according to shape
 (c) Urban Settlement i. Functions ii. Urban Hierarchy
 (d) World Urbanization
4. **Economic Activities:**
 (a) Introduction
 (b) Types of Economics Activities:
 i. Primary Activities ii. Secondary Activities
 iii. Tertiary Activities iv. Quaternary Activities
 v. Quinary Activities
 (c) World Trade Organization and Pakistan
5. **Political Geography:**
 (a) Basic Concept of Nation, State, Frontiers, and Boundaries
 (b) Geo-Strategic Position of Pakistan
6. **Natural Hazards:**
 (a) Types of Natural Hazards
 (b) Risks
 (c) Awareness and Management

LIST OF PRACTICALS FOR CLASS-XII (PART – II)

1. (a) **Statistical Diagrams**
 i. Line Graph ii. Bar Graph iii. Pie Charts
2. (a) **Distribution Maps**
 i. Methods of showing Statistical Data
3. (a) **Major Types of Projections**
 i. Types of Projection
 • Cylindrical
 • Conical
 • Zentithal
 ii. Uses and Properties of Projections

کتب:-

- 1- طبعی جغرافیہ برائے گیارہویں جماعت (پنجاب کریکولم اینڈ ٹیکسٹ بک بورڈ)
 2- انسانی جغرافیہ برائے بارہویں جماعت (پنجاب کریکولم اینڈ ٹیکسٹ بک بورڈ)
 3- عملی نوٹ بک جغرافیہ برائے انٹرمیڈیٹ کلاسز (پنجاب کریکولم اینڈ ٹیکسٹ بک بورڈ)

MILITARY SCIENCE

(There will be two papers of 100 marks each)

(*Outlines of tests*)

Marks : 100

(PART-I) WAR

Time : 3 Hours

AIM:- To create in the students an elementary understanding of the various factors governing war and its conduct.

Syllabus.

1. War.

1. Aim of war; causes of war.
2. Explanation of terms; strategy, grand strategy, toctics.

2. Nature of Modern War.

1. Impact of science on War.
2. Explanation of the terms; total war, limited war, global war, cold war, shooting war.

3. Principles of War.

Selection and maintenance of the aim, morale offensive action security; surprise; concentration of economy of effort; flexibility; co-operation administration (logistics).

4. Modern Warfare.

1. Explanation of tactical concepts; linear warfare; positional warfare mobile warfare, pincer movement.
2. Psychological warfare.
3. Guerrilla warfare.
4. Role of the three services.

5. Operation of War.

Advance, attack, defence and withdrawal, explaining the terms patrolling out-flanking, vanguard, advance-guard, penetration, counter-penetration, counter-attack, rear-guard and mopping up.

6. Sinews of War.

Moral, Social, economic, geographic and political.

7. Modern Weapons of War.

8. Steps short of War.

The U.N. especially and General Assembly and the Security Council.

9. Ethics of War.

The Hague Conferences; the Geneva Convention.

Prescribed Textbook:-

“Fundamentals of War” by Col: (Retd.) N.D. Hasan M.A. PCS (M/S
National Textbook Corporation Ltd., Lahore)
For Punjab Textbook Board, Lahore

Recommended book:-

“Jang Ka Ilm-o-Fun” by Maj Gen: Bashir Ahmad.

Name of Book:

Defence of Pakistan by Major Muhammad Ali.

Marks ; 100 (PART-II) Defence of Pakistan. Time:3 Hours

1. The Defence Problems:

- a. Our geographical location, terrain and frontiers with the neighbours.
- b. Relations with our neighbours, with particular reference to India Afghanistan and China. Outstanding disputes of Kashmir and Farrakka.

2. Foreign Policy.

- a. The global situation of Pakistan.
- b. Objectives of big powers/neighbours in this region and its effects on our defence.
- c. The foreign policy as a consequence of our defence problem.
- d. Need for Pakistan’s participation in Defence and Regional Pacts.
- e. Pakistan and the Muslim World. Our relation-ship with the Muslim countries, specially from the point of view of defence. Pakistan’s stand for Arab cause. May mention all out help by Turkey Iran and Indonesia to us during the last war of 1965.

3. Our Military Heritage.

- a. Islamic teachings on Jihad.
- b. Valour of Muslim Armies in War.
- c. A short account of War of 1965.
- d. Short narration of the acts of valour and bravery displayed by members of our Armed Forces.

4. PAKISTAN ARMY

{ Brief history, organization, development since independence and type of equipment held in each service.

5. PAKISTAN NAVY**6. PAKISTAN AIR FORCE**

7. **ECONOMY AND DEFENCE.**
 - a. Our resources and Industrial potential.
 - b. Defence on foreign supplies
 - c. Type of Industries to have defence bias to be useful in war from the point of view of Defence production.
 - d. Economic and Budgetary arrangements for the maintenance of Armed Forces.
 - e. The bearing of economic aid on Defence.
 - f. The effects of Defence expenditure on economic development.
 - g. Effects of War on Economy.
8. **Role of Armed Forces During Peace.**
 - a. Training and preparation for war.
 - b. In aid of Civil power during emergencies and calamities.
9. **National Service and Second Line Forces.**

Importance and Organization.
10. **Civil Defence.**

Organization in Pakistan and its duties in War.
11. **Qualities of a Military Leader.**
12. **Military Honour and Awards, rank structure.**

Name of Book:

Defence of Pakistan by Major Muhammad Ali.

Prescribed textbook.

Fundamentals of War by Major N.D. Hasan M.A, P.S,
(M/S. National Textbook Corporation Ltd., Lahore).

Recommended Book

Jang Ka Ilm-o-Fua,
by Major Geo: Bashir Ahmad.

PHILOSOPHY

Marks: 100

PART-I (Class- XI) Time: 3.00 Hours

CHAPTER-I INTRODUCTION

Concepts	Contents
1. Examined life (Truth, Wisdom, Goodness and Beauty)	a) What is Philosophy? b) What are the specific philosophical questions? c) Philosophical Approaches Criticism/ Speculation.

CHAPTER-II PHILOSOPHY AND RELIGION

1. Relationship between Philosophy and Religion	a) Questions asked in Philosophy and Religion. b) Their treatment c) Differences d) Allama Muhammad Iqbal's Educational Philosophy.
---	--

CHAPTER-III PHILOSOPHY AND SCIENCE

1. Relation between philosophy and Science	a) What does science try to understand? b) How is it different from philosophy? c) What role does philosophy play in the growth of science? i) Interprets ii) Criticizes iii) Resolves conflicts iv) Justifies
--	--

CHAPTER-IV KNOWLEDGE

1. Theory of knowledge	a) Definition of knowledge. b) Sources of knowledge: <ul style="list-style-type: none"> • Rationalism • Empiricism • Intuition and Revelation • Authority c) Introduction of basic philosophy of Imam Ghazali
------------------------	--

CHAPTER-V METAPHYSICS

a) Nature of Reality b) Problem of substance	a) Monism b) Dualism c) Pluralism d) School's of Idealism and Materialism
---	--

CHAPTER-VI ETHICS

1. Evaluation of Human action.	a) Meaning and scope of Ethics. b) Ethical Theories: <ul style="list-style-type: none"> • Golden Mean • Utilitarianism • Good will. c) Islamic theory of Ethics
--------------------------------	---

CHAPTER-VII ISLAMIC VALUES

1. Meaning and nature of values in Islam.	1. Islamic concept of Allah 2. Relation between man and Allah. 3. Human rights & responsibilities and Social justice in Islam
---	---

CHAPTER-VIII HIKMA: MEANING & SCOPE

1. Hikma: 2. Meaning & Scope	a) Meaning of Hikma b) Conceptual basis of Islam: Tauhid-Unity and Solidarity of mankind c) Risalat respect for humanity, Social justice, Tolerance, Universal brotherhood
---------------------------------	---

Marks: 100

PART-II(Class- XII)

Time: 3.00 Hours

LOGIC AND SCIENTIFIC METHOD**CHAPTER-I INTRODUCTION**

Concepts	Contents
a) Nature of Logic. b) Structure of Arguments.	a) Definition and scope of logic. b) Proposition & Arguments c) Premises/ conclusion Indicators d) Types of Arguments: <ul style="list-style-type: none"> • Inductive • Deductive e) Truth & Validity

CHAPTER-II LANGUAGE

1. Nature and functions of Language.	a) Language as an Instrument. b) Three Important uses of language: <ul style="list-style-type: none"> • Informative • Expressive • Directive
--------------------------------------	--

CHAPTER-III INFORMAL FALLACIES

1. Informal fallacies: Fallacies of Relevance	a) What is meant by fallacy? b) Fallacies of Relevance: <ul style="list-style-type: none"> • Appeal to emotions • Appeal to pity • Complex question • Adhominem c) Fallacies of ambiguity: Equivocation Amphiboly Accent
--	--

CHAPTER-IV CATEGORICAL PROPOSITIONS

1. Standard form categorical propositions	a) Four Categorical propositions. b) Quantity, quality and distribution c) Traditional squares of opposition. d) Three laws of thought.
---	--

CHAPTER-V CATEGORICAL SYLLOGISM AND SIMPLE ARGUMENTS

1. Validity of Categorical syllogism	a) Categorical syllogism <ol style="list-style-type: none"> 1) Figure 2) Mood
--------------------------------------	---

	3) Standard form 4) Rules 5) Venn diagram b) Simple argument forms and Truth Table
--	---

CHAPTER-VI INDUCTIVE LOGIC

1. Inductive generalization inductive Analogy	a) Forms of inductive Generalization Inductive Analogy b) Factors on which their strength depends
---	--

CHAPTER-VII SCIENTIFIC METHOD EXPLANATION

1. Scientific method and explanation	Explanations: 1) Scientific and unscientific Characteristics of a good hypothesis
--------------------------------------	---

Recommended Book: Philosophy Part-I

Author: Javed Iqbal Nadeem

Publisher: Maktaba Naumania, Lahore.

Recommended Book: Philosophy Part-II

Author: Javed Iqbal Nadeem

Publisher: Awais Book Center Urdu Bazar, Lahore.

PSYCHOLOGY

Marks: 85

PART –I(CLASS-XI)

Time: 3:00 Hours

CHAPTER-I INTRODUCTION TO PSYCHOLOGY

Concepts	Contents
1. Introduction of Psychology 2. Science of Behavior 3. Areas of Modern Psychology	1. Introduction Meaning and Definition of psychology as science of Behavior and mental processes 2. Goals of psychology 3. Clinical psychology 4. Experimental psychology 5. Educational psychology 6. Environmental psychology 7. Criminal psychology 8. Business psychology

CHAPTER-II METHODS OF RESEARCH

Concepts	Contents
1. Research 2. Methods of Research	1. Meaning and significance of research 2. Types of Research: (i) Observation Method. (ii) Experimental Method. (iii) Survey Methods. (iv) Case-study Method

CHAPTER- III NERVOUS SYSTEM AND BEHAVIOUR

Concepts	Contents
1. Nervous system and Behaviour 2. The Nervous System	1. Meaning & relationship with behavior 2. Neuron spinal cord. 3. Structure and Function of main parts of Brain.

CHAPTER- IV SENSATION AND PERCEPTION

Concepts	Contents
1. Sensation and perception. 2. Basic Concept and Function of Eye malfunctioning of Eye and Ear. 3. Attention. 4. Perceptual organization. (i) Types of perception.. (ii) Consistency of visual Perception. (iii) Illusion	1. Brief introduction of sensation. 2. Anatomy of the Eye, what we see and how we see. (i) Factors deforming the sensation & perception, defacts of Eye and Ear (ii) Definition. Factors of Attention Fluctuation and Distraction of Attention. Gestalt laws of perceptual organization. 1. Depth & Distance. 2. Movement. Monocular cues for depth perception Binocular Cues for depth perception. Definition. Kinds of Illusion. Effects on the human life.

CHAPTER-V LAERNING AND REMEMBERING

Concepts	Contents
1. Learning and Remembering 2. Learning and unadorned Behavior 3. Ways of learning 4. Memory Processes 5. Three stages Memory Model 6. Measurement of Memory	1. Definition of learning 2. Basic Principles of learning 3. Learning by observing - Conditioning - Classical. - Operant. 4. Definition of Memory (i) Sensory, Memory (ii) Short-term Memory (iii) Long-term Memory 5. Measuring Memory (i) Recognitions Method (ii) Recall Method (iii) Saving Method (iv) Method of Rearrangement 6. Forgetting

CHAPTER-VI MOTIVATIONAL BEHAVIOUR

Concepts	Contents
1. Motivational Behaviour 2. Characteristics of motivation Instinct, Needs/Drives, Incentive, Balance or Equilibrium (Homeostasis) 3. Types of Motives	1. Definition 2. How they direct our Behaviour 3. Primary motives (unlearned/ Physiological) 4. Hunger, thirst, temperature, sex 5. Maternal secondary motives (learned/psychological) 6. Achievement Motive 7. Power Motive 8. Affiliation Motive 9. Aggression 10. How to cope with stress, and emotive 11. Elements affecting Motivation

CHAPTER- VII PERSONALITY

Concepts	Contents
1. Personality 2. Definition of Personality 3. Types & traits of personality 4. Personality Theories 5. Personality Assessment	1. Definition Ectomaphic, Endomorphic Geomorphic types (i) Introvert, Extrovert & Amber (ii) Freudian theory (c) Millar & Dollard's Behaviour theory 2. Introduction (contribution of Pakistani psychologist) 3. Objective techniques: (i) Questionnaire, Interview (ii) MMPI (iii) Projective techniques (iv) TAT, Ross checks Inkblot 4. How to groom.

CHAPTER- VIII EMOTIONAL BEHAVIOUR

Concepts	Contents
1. Emotional Behaviour 2. Introduction 3. Theories of Emotion	1. Meaning and definition 2. Pysiology of Emotion

4. Environmental and cultural aspects of Emotion	3. James Lange Theory (Feelings are physical) 4. Cannon Bord theory 5. Role of learning and Environment in Emotion
--	--

CHAPTER-IX HIGHER COGNITIVE PROCESS

Concepts	Contents
1. Higher Cognitive processes. 2. Cognition 3. Cognitive Components Intelligence 4. Different Models of Intelligence. 5. Measurement of Intelligence 6. Language and Problem solving 7. Problem solving strategies 8. What is language? 9. Describe the structure in Language 10. Language Acquisition	1. Meaning & definition of cognition 2. Intelligence, General or specific Abilities 3. Spearman Model Guilford Model 4. Stanford-Binate Intelligence Scale, WAIS, WISE Army Alpha and Beta Intelligence 5. Definition & significances 6. Cognitive operations in problem solving Understanding & Organizing i) Discussion ii) Cooperative Learning 7. Meaning of Language 8. Basic tools of communication Elements of Language 9. Language Development Process 10. Ride & contribution

LIST OF PRACTICALS FOR CLASS XI (Part –I)

1. Blind Spot.
2. Muller-type-Illusion.
3. Effect of Suggestion on Perception.
4. After Image.
5. Retroactive Inhibition.
6. Problem solving.
7. Measurement of Memory
8. T.A.T.
(Practical Journal & Viva Voce)

Marks: 85

PART-II (Class- XII)

Time: 3.00 Hours

Practical: 30

CHAPTER-X DEVELOPMENTAL PSYCHOLOGY

Concepts	Contents
1. Development of Psychology. a) Cognitive Development. b) Psychosocial Development. c) Moral Development. d) Developmental psychology in the light of Quraan and Hadith	1. Definition of Growth, Development and Maturation. Difference between above mentioned terms Comparison Cognitive, physical and Social Development. a) Piaget's theory of cognitive development (Brief introduction). b) Eriksson's psychosocial theory-of- development (Brief introduction) Physical development i) Kahlberg's theory of moral development (Brief introduction). ii) Sensory and perceptual development (Brief introduction). c) Quraan verse & Hadiths

CHAPTER-XI PSYCHOLOGY OF HEALTH

Concepts	Contents
1. Psychology of Health and Adjustment. 2. Concept of mental health. 3. Muslim concept of Mental health. 4. Abnormal Behavior. 5. Stress and its role.	1. Definition of Health and adjustment. ii. Requirement of Good health i) Impact of good health 2. Different viewpoints of Mental Health. 3. Muslim point of views of Mental health, Imam Ghazali, Maulana Ashraf Ali Thanvi 4. Difference between Normal and Abnormal Behavior

<p>6. Behavioral Disorders.</p> <p>7. Eating Disorders.</p> <p>8. Schizophrenia.</p>	<p>5. Sources of stress, conflict, life Events, and Pressure & Environmental conditions</p> <p>a) Anxiety Disorders</p> <p>b) Eating Disorders</p> <p>6. Eating as a disorder, suggestions for improving Eating Habits</p> <p>(i) Right Eating</p> <p>(ii) Exercising</p> <p>(iii) Advises by the Doctors for Eating.</p> <p>6. Definition, Causes, General Symptoms. Kinds:</p> <p>-Disorganized.</p> <p>-Catatonic.</p> <p>-Paranoid.</p>
--	---

CHAPTER-XII SOCIAL PSYCHOLOGY

Concepts	Contents
<p>1. Social Psychology concept of socialization</p> <p>2. Social Problems. How to resolve?</p> <p>3. Attitude</p> <p>4. Public Opinion</p> <p>5. Leadership</p>	<p>1. Meaning & definition.</p> <p>2. Elements of Socialization</p> <p>3. Socialization Family influence on Socialization.</p> <p>i) Antisocial Behaviour.</p> <p>ii) Smoking.</p> <p>iii) Drug Addiction.</p> <p>iv) Violence.</p> <p>v) Prejudice.</p> <p>vi) Sexual Harassment</p> <p>4. Definition, Attitude formation</p> <p>5. Attitude change, Measurement of Attitude.</p> <p>6. Definition, Formation, opinion change types/ styles and Qualities.</p>

CHAPTER- XIII GUIDANCE AND COUNCELING

Concepts	Contents
-----------------	-----------------

STATISTICS

Distribution of Marks:

Part-I (Class-XI)

Part-II (Class-XII)

Theory Marks: 85

Theory Marks: 85

Practical: 30

Total : 200

Marks : 85

PART – I

Time: 3:00 Hours

Syllabus

Chapter:1 **INTRODUCTION TO STATISTICS**

Introduction, Definitions, Notations, Importance of Statistics in Various Disciplines, Social Sciences, Plant Sciences, Physical Sciences, Medical Sciences, Variables, Descriptive and Inferential Statistics, Sources of Data

Chapter:2 **REPRESENTATION OF DATA**

Introduction, Classification, Tabulation, Construction of tables, Frequency distribution, Cumulative Frequency Distribution, Graphic Representation of Data, Simple Bar Diagram, Multiple Bar Diagram, Sub-Divided Bar Diagram, Pie Diagram, Histogram, Frequency polygon and frequency curve, Scatter Plots, Bivariate Frequency Distribution

Chapter:3 **MEASURES OF LOCATION**

Introduction, Arithmetic Mean and Weighted Mean, Updating or Correcting the mean, Calculation of A.M. by coding / short-cut method, Merits and Demerits of Arithmetic mean, Geometric Mean, Properties of Geometric mean, Merits and Demerits of geometric mean, Harmonic Mean, Merits and Demerits of Harmonic mean, Properties of Harmonic mean, Median, Properties of Median, Merits and Demerits of Median, Quantiles, Mode, Properties of Mode, Merits and Demerits of Mode, Empirical Relationship between Mean, Median and Mode, Selecting a Suitable Measure of Central Tendency

Chapter:4 **MEASURES OF DISPERSION**

Introduction, Range, Merits and Demerits of Range, Quartile Deviation, Merits and Demerits of Quartile Deviation, Mean Deviation, Merits and Demerits of Mean Deviation, Properties of Mean Deviation, The Variance, Merits and Demerits of Variance, Standard Deviation, Properties of the Variance and standard

Deviation, Co-efficient of Variation and other Relative Measures, Moments, Moment about Mean, Moment about an Arbitrary Value, Moments for grouped Data, Sheppard's Correction for Grouping Error, Skewness

Chapter:5 **INDEX NUMBERS**

Introduction, Types of Index Numbers, Limitations of Index Numbers, Use of Index Numbers, Construction of price Index Numbers, Unweighted and Weighted Index Numbers, Consumer Price Index (CPI) and Wholesale Price Index (WPI), Construction of CPI, Sensitive Price Indicator (SPI)

Chapter:6 **PROBABILITY**

Introduction, Permutations, Combinations, Probability, Conditional Probability

Chapter:7 **RANDOM VARIABLES**

Introduction, Random Numbers and their Generation, Application of Random Numbers, Concept of Random Variables and their Construction from Different Fields, Discrete and Continuous Random Variables

Chapter:8 **PROBABILITY DISTRIBUTIONS**

Introduction, Probability Mass Function, Probability Density Function, Simple Univariate Discrete and Continuous Distributions, Properties of Probability Mass Function and Probability Density Function, Application, Drawing of Probability Mass Function and Probability Density Function, Expectation and Variance of the simple discrete Random Variable, Properties of Expectation, Distribution Function

Chapter:9 **BINOMIAL AND HYPERGEOMETRIC PROBABILITY DISTRIBUTION**

Introduction, Binomial Probability Distribution, Mean and Variance of the Binomial Distribution, Hypergeometric Distribution and Hypergeometric Experiment, Properties, Hypergeometric Probability Distribution,

List of Practicals for Class XI (Part-I)**Topics:**

1. Presentation of data
2. Measure of Location
3. Measure of description
4. Index Numbers
5. Probability
6. Random Variables
7. Discrete Probability distribution
8. Binomial and Hypergeometric Probability distribution

Recommended Book: Statistics (Part-I)

Authors: 1) Dr. Faqir Muhammad 2) Mr. Amjad Mehmood

Editor: Mazhar Hayat, SS, Punjab Textbook Board, Lahore

Publisher: Saeed Book Center, Lahore.

For Punjab Textbook Board, Lahore

Marks : 85

PART – II

Time: 3:00 Hours

Syllabus***Chapter:10* NORMAL DISTRIBUTION**

Normal Distribution, Standard Normal Random Variable, Standard Normal Distribution, Standard Normal Cumulative Distribution Function, De-standardizing, Quantiles of Standard Normal Distribution, Use of Standard Normal Tables for any Normal Distribution, Finding the Values of μ or σ or both

***Chapter:11* SAMPLING TECHNIQUES AND SAMPLING DISTRIBUTIONS**

Population (Or Universe), Sample, Sampling design, Non-probability (Non-random) Sampling, Probability (Random) Sampling, Simple Random Sampling, Stratified Sampling, Errors, Simple Random Sampling and Sampling Distributions, Sampling Distribution of a Statistic, Sampling Distributions from General Populations, Sampling Distribution of the Sample Mean, \bar{X} , Sampling Distribution of the Difference Between two Sample Means, $X_1 - X_2$, Sampling Distribution of Sample Proportion, P , Sampling Distribution of the Difference Between two Sample

Proportions, $P_1 - P_2$, Other Sampling Distributions, Sampling Distribution of the Sample Variance, S^2

Chapter:12 **ESTIMATION**

Statistical Estimation, Point Estimation of a Parameter, Unbiasedness, Best Estimator, Pooled Estimators from two Samples, Interval Estimation, Confidence interval for Population Mean, μ , Confidence interval for Population Proportion of Success, π , Comparative Studies, Confidence interval for Difference between two Population Means, $\mu_1 - \mu_2$, Confidence interval for difference between two Population Proportions, $\pi_1 - \pi_2$

Chapter:13 **HYPOTHESIS TESTING**

The Elements of a Test of Hypothesis, Test of Hypothesis about a Population Mean, μ , Test of Hypothesis about a Population Proportion, π , Test of Hypothesis about the difference between two Population Means-independent Samples, Inference about the difference between two Population Means-Dependent Samples, Test of Hypothesis about the Difference between two Population Proportions, $\pi_1 - \pi_2$

Chapter:14 **SIMPLE LINEAR REGRESSION AND CORRELATION**

Relations between Variables, Regression analysis, Curve fitting, Simple Linear Regression, The Simple Linear Regression model, Simple Linear correlation, Correlation analysis

Chapter:15 **ASSOCIATION**

Multinomial Populations, Attribute (Qualitative Variable), Independence of Attributes, Association of Attributes, Two dimensional count Data: Contingency Table, Test for Statistical Independence, Rank correlation,

Chapter:16 **ANALYSIS OF TIME SERIES**

Time Series, Components of a time Series, Analysis of time Series, Estimation of secular trend

Chapter:17 **ORIENTATION OF COMPUTERS**

Introduction to Computer, History of Computer, Types of computers, Classification of Computers, Hardware and Software, Hardware components of a personal Computer, Input Devices and Output Devices, System Software, Operating System, Application Software, Programming Languages, Language Processors and translators, Basic idea of writing and running a computer program,

Number system, How Computers Represent Data, Binary System as a foundation of Computer Programming

List of Practicals for Class XII (Part-II)

Topics:

1. Normal distribution
2. Sampling Estimation
3. Testing of Hypothesis
4. Regression
5. Correlation
6. Association
7. Time series

Recommended Book: Statistics (Part-II)

Author: Prof. Muhammad Rauf Chaudhary,
Govt. College for Boys Gujranwala.

Editors: 1) Prof. M. Khalid Director (Technical)
2) Mr. Mazhar Hayat, Subject Specialist,

Publisher: Zeeshan Book Center, Lahore.
For Punjab Textbook Board, Lahore

نصاب اسلامیات (اختیاری)

اس مضمون میں سو، سو نمبر کے دو پرچے ہوں گے

کل نمبر 100

پارٹ-1

وقت 3:00 گھنٹے

۵۰ نمبر

۱۔ اسلامی تہذیب و تمدن

۲۔ سیاسی و ثقافتی تاریخ اسلام (از ابتدائے اسلام تا اختتام

۵۰ نمبر

خلافت راشدہ

اسلامی تہذیب و تمدن

کتاب و سنت اور مفکرین اسلام کے افکار کی روشنی میں مندرجہ ذیل عنوانات کا مطالعہ:-

(الف) اسلامی تہذیب و تمدن۔

۲۔ اسلامی تہذیب و تمدن کی خصوصیات

۱۔ اسلامی تہذیب و تمدن کا مفہوم۔

(ب) فرد۔

مندرجہ ذیل اخلاق اسلامی کا مطالعہ

تقویٰ۔ ذکر۔ شکر۔ صبر۔ عفو۔ عدل۔ احسان۔ خدمت خلق

(ج) خاندان۔

۲۔ والدین اور اولاد کے حقوق و فرائض

۱۔ عائلی زندگی اور اس کی اہمیت۔

۳۔ خاوند اور بیوی کے حقوق و فرائض۔

(د) مکتب و مسجد

۲۔ اسلامی معاشرے میں مکتب کی اہمیت۔

۱۔ اسلامی معاشرہ میں تعلیم کی نوعیت و اہمیت۔

۳۔ اسلامی معاشرے میں مسجد کی اہمیت۔

۳۔ استاد اور شاگرد کے حقوق و فرائض۔

- (ہ) اسلامی معاشرہ حقوق و فرائض:- ۱- رشتہ دار ۲- ہمسایہ ۳- شہری ۴- ریاست
(ی) عالم اسلام ۱- امت ۲- اخوت ۳- تبلیغ ۴- جہاد

سیاسی و ثقافتی تاریخ اسلام

الف- اسلام کا پس منظر

- ۱- عرب کا جغرافیہ
۲- اسلام سے قبل عربوں کی سیاسی، سماجی اور تمدنی زندگی۔

ب- سیرت نبوی (حَاتَمُ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَعَلَى آلِهِ وَأَصْحَابِهِ وَسَلَّمَ)

آنحضرت (حَاتَمُ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَعَلَى آلِهِ وَأَصْحَابِهِ وَسَلَّمَ) کی ابتدائی زندگی۔ بعثت۔ تبلیغ دین اور ابتدائی مشکلات۔ ہجرت غزوات اور فتوحات۔ تعلیمات نبوی (حَاتَمُ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَعَلَى آلِهِ وَأَصْحَابِهِ وَسَلَّمَ)، آنحضرت (حَاتَمُ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَعَلَى آلِهِ وَأَصْحَابِهِ وَسَلَّمَ) بحیثیت مصلح اور بانی ملت اسلامیہ،

سیرت و اخلاق۔

ج۔ خلافت راشدہ

- ۱- حضرت ابو بکرؓ - انتخاب خلافت - حضرت اسامہؓ کی مہم۔ فتنہ ارتداد اور باغیوں کی سرکوبی ایران اور روم کی سلطنتوں سے آویزش کی ابتدا سیرت و اخلاق۔ کارہائے نمایاں۔

- ۲- حضرت عمرؓ - انتخاب خلافت - عراق، ایران، شام اور مصر میں اشاعت و فروغ اسلام - اسلام بحیثیت قوت سیاسی۔ شہری اور فوجی نظام حکومت کا ارتقا۔ غیر مسلموں سے سلوک - شہادت سیرت و اخلاق۔ کارہائے نمایاں۔

- ۳- حضرت عثمانؓ - انتخاب خلافت۔ اشاعت و فروغ اسلام - شہادت - سیرت و اخلاق کارہائے نمایاں۔

- ۴- حضرت علیؓ - انتخاب خلافت - انتشار امت کا آغاز۔ انتظام حکومت۔ شہادت۔ سیرت و اخلاق۔ کارہائے نمایاں۔

- ۵- خلفائے راشدین کے عہد میں اسلام کی ترقی۔ اس کے سیاسی و سماجی اقتصادی اور تمدنی پہلو۔

کل نمبر ۱۰۰

پارٹ-II

وقت 3:00 گھنٹے

(الف) القرآن

- ۱- تعارف مطالعہ قرآن۔ نزول وحی۔ تدوین قرآن مجید۔ حفاظت قرآن مجید ۱۰ نمبر
 ۲- مطالعہ قرآن مجید۔ ۵۰ نمبر
 ترجمہ و تشریح سورۃ البقرہ (رکوع ۲۰ تا ۲۰)

(ب) الحدیث

- ۱- تعارف مطالعہ حدیث۔ اہمیت حدیث۔ جمع و تدوین۔ کتاب حدیث ۱۰ نمبر
 ۲- مطالعہ حدیث۔ ترجمہ و تشریح۔ ”اربعین امام نووی“ ۲۰ نمبر
 (ج) عربی گرامر ۱۰ نمبر

- ۱- ماضی مضارع۔ امر و نہی ۲- واحد۔ جمع اور مذکر مونث ۱۰۰ نمبر
 مجوزہ کتب:-

- ۱- تفسیر حقانی از مولانا عبدالحق حقانی
 ۲- تعارف قرآن و تعارف حدیث از شیخ محمد اقبال
 ۳- معلم عربی از مولانا عبدالستار خان

OUTLINES OF HOME ECONOMICS

(Outlines of tests)

Part - I : 85 Marks

Part - II : 85 Marks

Practical : 30

کل نمبر ۸۵

پارٹ-۱

وقت: ۳:۰۰ گھنٹے

حصہ الف:- بچوں کی نشوونما اور خاندان کے تعلقات

- ۱- بچوں کی نشوونما
- ۲- ذات کا تصور اور شخصیت کی نشوونما۔
- ۳- خاندان اور افراد خانہ کے باہمی تعلقات۔
- ۴- بچوں کو سمجھنا اور انکی راہنمائی کرنا۔

حصہ ب:- انتظام خانہ داری

- ۱- انتظام خانہ داری کا تعارف و مقاصد
- ۲- وسائل و ذرائع
- ۳- تھکن اور اسکے اثرات
- ۴- تخمینہ آمدنی و خرچ
- ۵- صحت کی حفاظت
- ۶- گھروں میں فوری طبی امداد
- ۷- گھر میں آرٹ کے اصولوں کا استعمال

حصہ ج:- آرٹ

- ۱- ڈیزائن
- ۲- ڈیزائن اور اسکے عناصر

پریکٹیکل لسٹ (پارٹ-۱)

- ۱- فائل
- ۲- Viva
- ۳- سوال تخمینہ یا شخصیت کے متعلق
- ۴- سوال ڈیزائن یا آرٹ

مجوزہ کتاب: ہوم اکنامکس برائے انٹرمیڈیٹ کلاسز

مصنفین:- ۱- مسز کشوراسلم ۲- مسز سعیدہ غنی ۳- مسز صغیرہ ضیاء

ایڈیٹر:- مس زاہدہ شکور

پبلشرز:- صادق پبلیکیشنز، لاہور

برائے پنجاب ٹیکسٹ بک بورڈ، لاہور۔

کل نمبر ۸۵

پارٹ-II

وقت: ۳:۰۰ گھنٹے

حصہ الف:- غذا اور غذا اہمیت-

- ۱- غذائی اہمیت ۲- متوازن غذا ۳- غذائی ضروریات-
- ۴- لحمیات ۵- کاربوہائیڈریٹ یا نشا کستہ ۶- روغنیات یا چکنائی-
- ۷- حیاتین ۸- معدنی نمکیات ۹- فہرست طعام کی ترتیب-
- ۱۰- اشیاء خوردنی کی خریداری ۱۱- کھانا پکانے کے طریقے ۱۲- کھانا پیش کرنے کے طریقے-

حصہ ب:- پارچہ بانی اور لباس

- ۱- سلائی کے ابتدائی مراحل ۲- اچھی سیٹنگ کیلئے مناسب ناپ کی اہمیت-
- ۳- ایشوں کے مطالعے کی اہمیت ۴- پارچہ بانی کے بنیادی طریقے-
- ۵- کپڑوں کی منصوبہ بندی ۶- ذاتی زیبائش-

پریکٹیکل پارٹ-II

پریکٹیکل پارٹ-I

فائل

فائل

Viva

Viva

پکانے کے سوال

سوال تخمینہ یا شخصیت کے متعلق

مختصین کی سلائی

سوال ڈیزائن یا آرٹ

فراک کی سلائی

ڈرافٹنگ

بنیادی سلائیاں

مجوزہ کتاب: ہوم اکنامکس برائے انٹرمیڈیٹ کلاسز

۳- مسز سعیدہ ضیاء

۱- مسز کشوراسلم ۲- مسز سعیدہ غنی

ایڈیٹر:- مس زاہدہ کھور

پبلشرز:- صادق پبلیکیشنز، لاہور

برائے پنجاب پبلسٹ بک بورڈ، لاہور-

MUSIC

(Outlines of tests)

Distribution of Marks:

Part-I (Class-XI)

Theory: 40

Part-II (Class-XII)

Theory: 40

Practical: 120

Total: 200

PART-I (CLASS XI)

Marks 40

Theory

Time: 1:30 hours

1. Definition of Music Sur, Thath, Raag, Arohi, Amrohi, Sabtak, Alap, Shurti, Taan, Meend and Gammak. Wadi Sumwadi
2. Complete Names of Sur (Note)
3. Sargams of Five Thaths: Bilawal, Kalyan, Bhairon, Bhairveen & Poorbi.
4. Definition of Matra, Lay, Sum, Tali and Khali.
5. Knowledge of the following Taals with Bols showing Sum, Zarb and Khali. Teental, Kehrva, Dadra, Rupak and Nakta.
6. Definition of Folk, Ghazal, Qavvali, Marsia, Khyal and Trana,.
7. Contribution to Music by Amir Khusro.
8. Short Notes on the following instruments:- Tanpura, Sitar, Shehnai, Flute, Sarode, Taos.

LIST OF PRACTICAL FOR CLASS XI (PART-I)

Marks 60

Time: 3 hours

1. **Vocal Music:** Singing of Khayal Tarana, Thumri, Dadra of raags, Bilawal Kafi, Rageshri Bhairvin, Aimen (Technique style and expression to be emphasized).
OR
Instrumental Music: Playing of Sitar, Violin, dilruba, Flute, sarode, Shehnai, Sarangi in the raags mentioned above under vocal music (Technique style and skill in handling and tuning the musical instrument to be emphasized).
2. Qaumi Tarana (Vocal or any one of the instruments mentioned at No.1).
3. Three folk songs or tunes of Pakistan.
4. Ghazal and Film Songs.
5. Practical Book.

Marks 40 PART-II (CLASS XII)**Time: 1:30 hours**

1. Definition of Grah Sur, Nyes Sur, Alankar, Andolan, Kan, Pakar, BolTaan.
2. Sargams of Five Thaths: Khammach, Kafi, Assvri, Marva, Todi.
3. Definition of Taal and Lai.
4. Knowledge of the following Taals with Bols showing Sum, Zarb and Khali. Chanchal, Jhaptal, Ektal, Tilwara
5. Classical Music Gharanas and their famous Singers.
6. Defintion of Thumri, Chatrang, Hori, Dhurped, Lakshan Geet and Dhadra.
7. Contibution to Music by Tansen and Sadarang.
8. Short notes on the following instruments:
Veena, Sarangi, Rabab, Dilruba, Surbhar, Surmandal.

LIST OF PRACTICAL FOR CLASS XII (PART-II)**Marks 60****Time: 3 hours**

1. **Vocal Music:** Singing of Khayal Tarana, Thumri, Dadra of raags, Malkaus, Bheemplasi, Khamaj, Marva, Rag Darbari.

OR

- Instrumental Music:** Playing of Sitar, Violin, dilruba, Flute, sarode, Shehnai, Sarangi in the raags mentioned above under vocal music (Technique style and skill in handling and tuning the musical instrument to be emphasized.
2. Judgment of Talls.
 3. Qaumi Tarana (Vocal or any one of the instruments mentioned at No.1).
 4. Three folk songs or tunes of Pakistan.
 5. Ghazal and Film Songs.
 6. Practical Book.

FINE ARTS

Distribution of Marks:

Part-I (Class-XI)	Practical	Part-II (Class-XII)	Practical
Theory: 40	Theory: 40	Design: 20	Still Life: 20
	Practical: 120	Drawing & Painting: 20	Figure Composition: 20
		Exhibition of Work: 20	Exhibition of Work: 20
Total: 200			

Marks 40 PART-I (CLASS XI)

Time: 1:30 hours

SYLLABUS:

The Dawn of Civilization

- i. The Evolution of Ornament, Painting and Sculpture (Prehistoric and Primitive)
- ii. Egypt
- iii. Western Asiatic (Sumerian, Babylonian, Assyrian and Persian Eras).
- iv. Indus Valley Civilization

LIST OF PRACTICAL FOR CLASS-XI (PART-I)

- a. **Design & Pattern making potato cut, Stenciling.**
Traditional designs from different civilizations at least 12 Designs.
i.e. Egypt, Meso potamia, Greek, Roman, Indus Valley, Buddhist.
- b. **Still life in water colour & pencil**
 4. Best works in water colour.
 4. Best work in Pencil.
- c. **Drawing from casts**
Study of different parts of human body from cast 8 Best work.
- d. **Nature Study**
Plants flower trees etc.
8 Best work.

Media to be taught water colour. Pen & Ink Char coal & Pastels.

Marks 40 PART-II (CLASS XII)

Time: 1:30 hours

SYLLABUS:

The Dawn of Civilization

- i. Greek
- ii. Roman (before Christian Eras)
- iii. Buddhist
 - a. Gandhara School.
 - b. Ajanta school

Outline study. Characteristic of each period must be cleared.

LIST OF PRACTICAL FOR CLASS XII (PART-II)

1. Still life in water colour
OR
Life in Pencil, Char-coal
2. Composition
In Water Colour OR Water Colour and Pen & Ink
3. Exhibition of Work
 - i. Land-scape
At least 4 Works
 - ii. Composition
At least 4 Works
 - iii. Portrait /Life Drawing
At least 4 Works
 - iv. Still Life objects in Water Colour and other Media.
At least 8 Works

Media to be taught in II year.

- i. Water Colour
- ii. Pen & Ink
- iii. Pastels
- iv. Char-coal.

Recommended books:**ART THROUGH THE AGES -1**

2- قدیم انسان اور فن مصوری

مصنفین :- 1- پروفیسر ڈاکٹر مسرت حسن

2- پروفیسر یاسمین عرفان

3- پروفیسر محمودہ خالد

4- پروفیسر شمیمہ رشید

ARABIC

(There will be two papers of 100 marks each).

(Outlines of tests)

پارٹ-1 اور پارٹ-2 کے سوالات میں نمبروں کی تقسیم

1- ”حدیقہ الادب“ (پرچہ الف الجز الاول سے اور پرچہ ب الجز الثانی سے مرتب ہوگا۔ دونوں پرچوں کا وقت تین تین گھنٹے ہوگا)۔

6+24

نثر۔ عربی عبارت کا اردو میں ترجمہ اور خط کشیدہ

الفاظ کی سادہ لغوی تشریح

5+15

نظم۔ اشعار کا اردو میں ترجمہ و تشریح

2- ”حدیقہ الادب“ کے اسباق کے آخر میں دی گئی تماریں پر مبنی سوالات (سوالات کسی نوعیت کے بھی ہوں کتاب میں دی گئی تماریں پر مبنی مشتمل ہوں گے اور قواعد کے بارے میں سوال بھی تمرینات سے سہی کیا جائے گا۔

25

15

3- اردو سے عربی میں ترجمہ

10

4- مضمون / خط / درخواست۔

قواعد برائے گیارہویں جماعت

حروف مشبہ بالفعل، حروف جارہ، حروف ناصبہ، حروف جازمہ، حروف نداء، اسماء موصولہ، مرکبات ناقصہ، مرکب اضافی، مرکب توصیفی، مرکب اشاری، اوزان جمع، افعال صحیح سے ابواب تلافی مجرد اور ثلاثی مزید فیہ کے ابواب۔ افعال، تفعیل، مقاعلہ، تفعیل، افعال، انفعال، استفعال۔

قواعد برائے بارہویں جماعت

اسماء عدد۔ سبتداء و خبر۔ معرب و مثنیٰ۔ افعال ناقصہ۔ مفاعیل خمسہ۔ اسمائے ظرف (ظرف زمان / ظرف مکان)۔ غیر منصرف، مضاعف اور معتل افعال۔

نوٹ:- پارٹ-۱ میں درج ذیل عنوانات پر عربی میں مضمون جو کم از کم پچاس الفاظ پر مشتمل ہو۔
القرآن الکریم، خلق النبی، وطنی پاکستان، القائد الاعظم، کلیتی، استاذی، آئی، فی الحدیقتہ،
الدرجاتہ، الجمل۔

درخواست / خط پارٹ-۱۱ میں آئے گا۔ درخواست بنام پرنسپل صاحب برائے رخصت، بوجہ بیماری، ضروری کام، شادی میں شرکت اور فیس معافی، خط والد کے نام پیسے منگوانے کے لیے، والدہ کے نام امتحان میں کامیابی کی خبر دیتے ہوئے، چھوٹے بھائی کے نام پڑھائی کے سلسلے میں نصیحت کرتے ہوئے، دوست کے نام چھٹیوں میں اپنے ہاں آنے کی دعوت دیتے ہوئے، دوست کے نام اس کے کسی قریبی عزیز کی وفات پر تعزیت کرتے ہوئے۔

کتاب:- الحدیقتہ الادب

(الجزء الاول، برائے گیاہویں جماعت الجزا الثانی، برائے بارہویں جماعت)

مصنفین ایڈیٹر

- | | |
|------------------------|---------------------------|
| ۱۔ ڈاکٹر ظہور احمد ظہر | ۵۔ پروفیسر خان محمد چاولہ |
| ۲۔ ڈاکٹر خورشید رضوی | ۶۔ پروفیسر رخسانہ لطافت |
| ۳۔ ڈاکٹر خالق داد ملک | ۷۔ ڈاکٹر محمد اسحاق قریشی |
| ۴۔ ڈاکٹر محمد قمر علی | ۸۔ طاہر رضا بخاری |

APPENDIX—II (LIBRARY BOOKS)

Note:—Books given in Appendix II may be made available in the College Library for Supplementary Reading.

دارالمنارف بمصر	قصص الاثر	اساطير العالم للاطفال	كامل الكيلاني
دارالمنارف بمصر	شمس وشاه	قصص من الف ليلة	كامل الكيلاني
دارالمنارف بمصر	نعمان	قصص فكاهية للاطفال	كامل الكيلاني
دارالمنارف بمصر	عسارو	قصص فكاهية للاطفال	كامل الكيلاني
دارالمنارف بمصر	بيت الصباغ	قصص فكاهية للاطفال	كامل الكيلاني
دارالمنارف بمصر	حذاء الطنبوري	قصص فكاهية للاطفال	كامل الكيلاني
دارالمنارف بمصر	المرزفس	قصص فكاهية للاطفال	كامل الكيلاني
مطبعة سعد بمصر	جزء اول و ثاني	الترجمة المصورة	مصطفى ابوسنة
مطبعة معارف بمصر	على بابا	للمدارس الابتدائية	و عطيه محمد
مطبعة معارف بمصر	عبدالله البري	قصص جديدة للاطفال	كامل الكيلاني
مطبعة معارف بمصر	عبدالله الجري	قصص جديدة للاطفال	كامل الكيلاني
مطبعة معارف بمصر	ابو سمير و ابو نير	قصص جديدة للاطفال	كامل الكيلاني
مطبعة معارف بمصر	بابا عبدالله	قصص جديدة للاطفال	كامل الكيلاني
مطبعة معارف بمصر	والد رويش	قصص جديدة للاطفال	كامل الكيلاني
مطبعة معارف بمصر	تاجر بغداد	قصص جديدة للاطفال	كامل الكيلاني
مكتبة دارالعلوم	قصص النبيين	مطبوعات ندوة العلماء	سيد ابوالحسن
ندوة العلماء لكهنه			على الحسيني الندوي

ENGLISH (Elective)

(There will be two papers of 100 marks each)

Marks 100 PART-I (CLASS XI) Time: 3:00 hours

- | | | |
|----|---|-------------------|
| 1. | A new anthology of Poems (1 to 12)
by Dr. M. Sadiq and Mrs. Riaz Hussain
Published by : Sh. Muhammad Ashraf,
Publisher and Book Sellers, Kashmiri Bazar, Lahore. | 20 |
| 2. | A new anthology of Essays
by Dr. Imdad Hussain and Mrs. S.M. Sulehri.
Publishers and Book Sellers, Kashmiri Bazar, Lahore. | 20 |
| 3. | A passage of moderns prose for comprehension | 20 |
| 4. | Writing a letter on some important subject to a newspaper. | 20 |
| 5. | Writing a dialogue between two or three persons on a
current topic. | 20 |
| | | Total: 100 |

Note:- Advanced Learners Dictionary by A.S. Hornby is recommended.**Marks 100 PART-II (CLASS XII) Time: 3:00 hours**

- | | | |
|----|---|-------------------|
| 1. | A new anthology of Poems (13 to 24)
by Dr. M. Sadiq and Mrs. Riaz Hussain
Published by : Sh, Muhammad Ashraf,
Publisher and Book Sellers, Kashmiri Bazar, Lahore. | 20 |
| 2. | 'Merchant of Venice'
Edited by : John Russell Brown.
Publisher : M/s Oxford University Press, Lahore | 20 |
| 3. | Under the Green Wood Tree
By Thomas Hardy,
Publisher : M/s Oxford University Press, Lahore | 20 |
| 4. | An essay of relatively advanced.
Nature, preferably on a descriptive or narrative subject. | 20 |
| 5. | Writing a letter on some important
subject to a newspaper | 20 |
| | | Total: 100 |

Note:- Advanced Learners Dictionary by A.S. Hornby is recommended.

FRENCH

(There will be two papers of 100 marks each)

Marks 100**PART-I (CLASS XI)****Time: 3:00 hours****SYLLABUS**

1. Grammar	40
Exercises to be limited to those covered by "French" for Intermediate Classes Part-I Chapter 1-13 (both inclusive)	
2. Translation (Seen)	20
French into English / Urdu	
3. Translation (Seen)	25
English / Urdu into French	
4. Questions	15
(to be answered in French) to text comprehension of a given passage (Within studied vocabulary)	
	Total: 100

Marks 70**PART-II (CLASS XII)****Time: 2:30 hours**

1. Grammar	20
Exercises from chapter 14-25 (both inclusive) from "French" for Intermediate Classes, Part-II	
2. Translation (Unseen)	15
French into English	
3. Translation (Unseen)	15
English into French	
4. An essay of about 150 words on a general topic within studied vocabulary.	20
A letter may be included within the choice of subjects.	
5. Viva Voce:	30
Dictation reading and conversion	
	Total: 100

Prescribed textbooks:-

French for Intermediate classes- Part-I& Part-II by Dr. S.H.A. Rasool

GERMAN

(There will be two papers of 100 marks each.)

Marks 100 PART-I (CLASS XI) Time: 3:00 hours

(a)	Applied Grammar	40
(b)	Translation: German into English/Urdu	20
(c)	Translation: English/Urdu into German	40
		Total: 100

Marks 100 PART-II (CLASS XII) Time: 3:00 hours

(a)	Retelling of a story from the prescribed textbook or Questions on the stories in the prescribed textbooks to be answered in German	35
(b)	Composition.	35
(c)	Viva voce (Dictation, Conversation).	30
		Total:100

Syllabus.**1. Grammar:**

- Articles** : Definite and indefinite.
Nouns : all declensions
Verbs : all tenses of the different types of verbs.
Pronouns : Personal , interrogative , demonstrative , possessive, reflexive, relative and indefinite pronouns.
Adjectives : Declensions, comparison,: adjective as nouns.
Prepositions : Dependence of prepositions, combined prepositions. (like "evon .. bis", "auf.. zu"
preposition + personal pronouns "da" + preposition
Numbers : cardinal and ordinal numbers, the time :
Moods : Indicative and subjunctive I+11, Imperative

Voices :Active and passive voice**Adverbs** :Adverbs of time**Syntax** :Words order, principal and dependent clauses; infinitive constructions, conjunctions.**Remarks** :the items on Grammar comprise the forms as well as their use in German.**II Texts** :the main texts of the prescribed textbook

Prescribed textbooks:

- (1) Schulz/Griesbach: Deutsche Sprachlehre für Ausländer, Grundstufe in einem Band
- (2) Glossar ;Gennan-English-Urdu-Bengali all books; Max Huesber Verlag, Muenchea

Remarks : Every chapter of the prescribed textbooks has one main text (the beginning of each chapter) additional texts, numbered exercises within the chapters and additional exercises at the end of the Book. Additional texts and exercises are not compulsory, but may be used by the teacher as desired for fluency, practice and conversation.

Note :

The textbooks will be provided by the respective colleges on nominal fee.

پنجابی

100 نمبر

پارٹ-1

وقت 3:00 گھنٹے

سوال نمبر ۱۔ تھلے دتے ہوئے نثری پیریاں وچوں دودی تشریح سیاق و سباق دے حوالے نال کرو۔
نمبر ۳۰

ونڈ: لکھاری داناں ۲ نمبر
سیاق ۲ نمبر
سیاق ۲ نمبر
تشریح ۹ نمبر
۴ پیرے دتے جان

سوال نمبر ۲۔ تھلے دتے گئے شعران دی تشریح۔ شاعر تے مصنف دے حوالے نال لکھو۔
نمبر ۳۰

۴ وچوں ۲ بنداں دی تشریح کرو
ونڈ: شاعر داناں ۳ نمبر
مصنف داناں ۳ نمبر
تشریح ۹ نمبر

سوال نمبر ۳۔ کسے اک سبق کا خلاصہ لکھو۔
نمبر ۱۰

(۲ سبق دتے جان گے اوہناں وچوں اک سبق دا خلاصہ لکھنا)

سوال نمبر ۴۔ کسے اک صوفی شاعر دی حیاتی تے شاعری تے نوٹ لکھو۔
نمبر ۱۰

ونڈ: حیاتی ۵ نمبر
شاعری ۵ نمبر

تتاں وچوں کسے اک شاعر بارے پچھیا جائے۔

(شاعر) بابا فرید، شاہ حسین، سلطان باہو، علی حیدر ملتانوی، سید بلھے شاہ، وارث شاہ

ہاشم شاہ، مولوی غلام رسول عالمپوری، خواجہ غلام فرید، میاں محمد بخش۔

سوال نمبر ۵۔ کسے اک عنوان تے پنجابی وچ مضمون لکھو۔
نمبر ۲۰

۴ مضموناں وچوں اک مضمون لکھا جائے۔

۱۔ پنجابی زبان تے ادب بارے۔

۲۔ اک مضمون صوفی شاعراں بارے۔

۳۔ مضمون عام سرنا نویں اتے ہوں۔

100 نمبر

پارٹ-II

وقت 3:00 گھنٹے

سوال نمبر ۱۔ ہیٹھاں دتے ہوئے نثری پیریاں و چوں ۲ دی تشریح سیاق و سباق دے حوالے نال لکھو
لکھاری داناں وی دسو۔

نمبر ۳۰

ونڈ: لکھاری داناں ۲ نمبر

سیاق ۲ نمبر

سیاق ۲ نمبر

تشریح ۹ نمبر

سوال نمبر ۲۔ ہیٹھ دتے بنداں و چوں صرف ۲ دی تشریح شاعر تے شاعری دی صنف دے حوالے نال
کرو۔

نمبر ۳۰

ونڈ: شاعر دے نال دے ۳ نمبر

شعری صنف دے ۳ نمبر

تشریح دے ۹ نمبر

سوال نمبر ۳۔ نثری سبقاں و چوں کردار (اتے) نوٹ یا کسے سبق دا جائز لکھیا جائے۔

نمبر ۱۰

سوال نمبر ۴۔ شاعران (اتے) نوٹ لکھو۔

نمبر ۱۰

تتاں و چوں کسے اک شاعر (اتے)

ونڈ: حیاتی ۵ نمبر

شاعری ۵ نمبر

شاعر:۔ مولوی لطف علی بہا و لپوری، راقب قصوری، کرم امرتسری، علامہ یعقوب انور
بشیر منزر، رشید انور، الطاف قریبی، فیروز دین شرف، شرف کجاہی

نمبر ۲۰

سوال نمبر ۵۔ گرائمر (الف) چاروں و چوں دو اتے لکھو۔

(علم بیان) تشبیہ، استعارہ، کنایہ، قافیہ، ردیف

(مرکبات) عطفی، عددی، ظرفی، اضافی، توصیفی

نمبر ۱۰

مروجہ نصاب (ب) لوک ادب

نمبر ۱۰

تتاں و چوں دو (اتے) لکھو۔

لوری، ککلی، تھال، گدھا، بولی، گھوڑی، ماہیا، ڈھولا

کتاب ادب خزینے حصہ اول۔ دوم

۳۔ ڈاکٹر عصمت اللہ زاہد

مصنفین: ۱۔ ڈاکٹر سید اختر جعفری ۲۔ ڈاکٹر محمد اسلم رانا

PASHTO

(There will be two papers of 100 marks each)

Marks : 100 CLASS –XI(PART-I) Time : 3 Hours

1.	Classical Prose	20
2.	Modern prose	30
3.	Letter-writing	15
4.	Narrative	10
5.	Translation	15
6.	Grammar	10
Total:-		100

Syllabus.

PART I

1. Text (Prose)
2. Grammar مباحث اسم و فعل

Prescribed Textbook.

Pashto Hissa Nassar – Pashto Academy (Produced by Peshawar Board and Published by M/S. Azmat Bros, Peshawar)

Marks : 100 PART II Time : 3 Hours

1.	Classical Poetry	30
2.	Modern prose	20
3.	Essay	20
4.	Précis writing	10
5.	Simple criticism	10
6.	Grammar	10
Total:-		100

PART II

1. Text (Poetry)
2. Grammar مباحث حرف و مرکب

Prescribed Textbook.

Pashto Hissa Nazam – Pashto Academy (Produced by Peshawar Board and Published by M/S. University Book Agency, Peshawar)

فارسی

کل نمبر ۱۰۰	وقت: ۳۰ گھنٹے	پارٹ-۱
۳۰ نمبر	۱- حصہ نثر	- نثر کا سلیس اردو ترجمہ بحوالہ متن و مصنف
۲۵ نمبر	۲- حصہ نظم	- اردو میں ترجمہ و تشریح
۱۰ نمبر	۳- مصنفین	- سید علی ہجویری، سدید الدین محمد عوفی، نور الدین محمد جہانگیر
	شعرا	- نظامی گنجوی، حافظ شیرازی، علامہ اقبال حالات زندگی و ادبی خدمات
۱۵ نمبر	۴- کتاب فارسی	- برائے گیارھویں جماعت کے اسباق کے آخر میں دی گئی تمارین پر مبنی سوالات
۱۰ نمبر	۵- خط یادخواست (فارسی میں)	
۱۰ نمبر	۶- اردو سے فارسی ترجمہ (متفرق جملے)	
کل نمبر ۱۰۰	وقت: ۳۰ گھنٹے	پارٹ-۱
۳۰ نمبر	۱- حصہ نثر	- نثر کا سلیس اردو میں ترجمہ بحوالہ متن و مصنف
۲۵ نمبر	۲- حصہ نظم	- اشعار کا اردو ترجمہ و تشریح
۱۰ نمبر	۳- مصنف اور شعرا کے حالات زندگی و ادبی خدمات	
	مصنفین - ابوالفضل بیہقی - علی بن حسین واعظ کاشفی - محمد حجازی	
	شعرا - ابوسعید ابوالخیر - غنیمت کنجاہی - نظیری نیشاپوری	
۵ نمبر	۴- (i) نصابی کتاب کے اسباق کے آخر میں دی گئی 'پرسش' پر مبنی سوالات	
۱۰ نمبر	(ii) نصابی کتاب کے اسباق کے آخر میں دی گئی 'تمارین' پر مبنی سوالات	
۱۰ نمبر	۵- متفرق اردو جملوں کا فارسی میں ترجمہ	
۱۰ نمبر	۶- مضمون نویسی (فارسی میں)	
	مجوزہ کتب:-	
	۱- فارسی حصہ اول برائے گیارھویں جماعت	
	۲- فارسی حصہ دوم برائے بارھویں جماعت	
	مصنفین	
	۱- خانم ڈاکٹر خالدہ آفتاب	
	۲- نواز علی شیخ (مرحوم)	
	۳- محمد خان کلیم	
	۴- غلام معین الدین نظامی	

ناشرین

۱۔ آزاد بک ڈپو اردو بازار، لاہور

۲۔ پریسٹر بک ہاؤس اردو بازار، لاہور

SINDHI

(There will be two papers of 100 marks each)

Marks : 100 CLASS-XI (PART-I) Time : 3 Hours

1. Prescribed Textbook (Prose 40 + Poetry 40)	80
2. Study of language and appreciation	<u>20</u>
Total:-	100

Marks : 100 CLASS-XII (PART-II) Time : 3 Hours

1. Grammar	20
2. Composition	30
3. History of Sindhi language.	25
4. History of Literature	<u>25</u>
Total:-	100

Syllabus: **PART-I**

1. Prescribed Textbooks.

a. Prose:

۱۔ طلسم عرف غازی صلاح الدین

۲۔ روحِ رحاٹ یا کثر بخشا ٹھیا

b. Poetry:

۱۔ شاہ لطیف نوسر کا موز

۲۔ سنری نصاب (اختیاری) یارھین تا بارھین کلاس

ھیٹ زیکاریل شعر پاڑھیادین

۲	غزل	۱۶۔	حاجی سیو پوری	۳ تا ۱	غزل	۱۔	خلیفہ گل محمد
۲	غزل	۱۷۔	رشید لاشاری	۳ تا ۱	غزل	۲۔	میر عبدالحسین ساگی
۳ تا ۱	غزل	۱۸۔	شیخ عبدالحلیم جوش	۳ تا ۱	غزل	۳۔	مرزا قلیج بیگ
		۱۹۔	مرزا قلیج بیگ حیاتی	۳ تا ۱	غزل	۴۔	میاں علی محمد قادری
		۲۰۔	حافظ عبداللہ لعل	۲	غزل	۵۔	شمس الدین بلبل
		۲۱۔	کشمند بیوس		چار چیز	۶۔	محمد زمان حیات شاہ
		۲۲۔	نیاز علی نیاز	۳ تا ۱	غزل	۷۔	حافظ حیات شاہ
		۲۳۔	لبرہ مندری	۳ تا ۱	غزل	۸۔	فتح محمد سیوہائی
		۲۴۔	سلیم گاڈھوری	۳ تا ۱	غزل	۹۔	نواز علی نیاز
		۲۵۔	حیدر بخش چیوٹی جون		غزل	۱۰۔	مولوی حاجی احمد ملاح
		۲۶۔	ایاز قادری	۳ تا ۱	غزل	۱۱۔	محمد ابراہیم
		۲۷۔	مصری شاہ جی		غزل	۱۲۔	اللہ بخش سرستار عقیلی
		۲۸۔	نیاز برگی		غزل	۱۳۔	شیخ عبداللہ
		۲۹۔	تنویر عباسی جوگیت		غزل	۱۴۔	اختر حالائی
		۳۰۔	منظور نقوی گیت		غزل	۱۵۔	طالب المولی

II. Study of Language and appreciation with reference to the test:

1. Idioms Proverbs
2. Derivatives
3. Figures of speech
4. Elementary prosody and scansion of the main three meters namel, Mutaqarib, Hjaz and Remal

The following books are recommended:

1. Tankeed-e-Adab by Ibrahim Khalil
2. Ilam Badn by Sandelo.

PART II

This paper shall be devoted to the thorough study of Grammar, composition, language and literature.

a- Grammar

Thorough and complete study of Grammar on advance level including analysis, scansion etc.

b- Composition:

1. Essay-writing
2. Dialogues and debates
3. Story-writing
4. Petitions and memorandum writing

c- History of Sindhi Language**d- Outlines of Sindhi literature upto pre-British period**

The following books may be used for the study of the above mentioned topics:

مرزا قليچ بيگ	۱- سنترى ڪداموچا ڪو ۳۳ء
ليڪراچ ڪشچند عزيز	۲- ادبي آلو
جا ڪثر نبى بخش بلوچ	۳- سنترى بولي جي تاريخ
مير محمد نظامانى	۴- سنترى دواما
پير حسام الدين راشدى	۵- سنترى ادب (از دوم)

نصاب اردو (اختیاری)

پارٹ-۱ (گیارہویں جماعت کے لیے)

کل نمبر: ۱۰۰

وقت: ۳-۰۰ گھنٹے

حصہ نثر

- ۱۰ نثر پاروں کی سیاق و سباق کے حوالے سے تشریح
- ۱۰ اسباق پر سوالات
- ۱۰ کرداروں کے بارے میں نوٹ
- ۱۰ تاریخ و زبان ادب اردو (خاکہ)
- ۰۵ نثر نگاروں کے بارے میں سوال

حصہ نظم

- ۱۵ شاعر کے حوالے سے ایک جز کی تشریح (نظم، مرثیہ)
- ۱۰ شاعر کے حوالے سے ایک جز کی تشریح (حمد و نعت، منقبت، قطعہ، رباعی)
- ۱۰ شاعر پر تنقیدی نوٹ

قواعد

- ۱۰ اصناف نظم و نثر کی تعریف
- ۱۰ علم بیان و بدیع

پارٹ-II (بارہویں جماعت کے لیے)

کل نمبر: ۱۰۰

وقت: ۳-۰۰ گھنٹے

حصہ نثر

- ۱۰ نثر پاروں کی سیاق و سباق کے حوالے سے تشریح
 ۱۰ اسباق پر سوالات
 ۱۰ ناول پر سوالات
 ۱۰ پاکستانی زبانوں کے تراجم
 ۰۵ نثر نگاروں کے بارے میں سوال

حصہ نظم

- ۱۵ غزل کے دو اجزاء میں سے ایک کی تشریح
 ۱۰ نظم کے دو اجزاء میں سے ایک کی تشریح
 ۱۰ شاعر پر نوٹ

انشاء

- ۲۰ مضمون

مرقع ادب (برائے گیارہویں / بارہویں جماعت)

- مصنفین: 1- ڈاکٹر محمد خان اشرف
 2- پروفیسر سمعیہ جلیل صدیقی
 3- پروفیسر اشتیاق احمد
 4- پروفیسر ایاز اصغر شاہین

ناشر: ملک محمد افضل اینڈ سنز اردو بازار لاہور

HEALTH AND PHYSICAL EDUCATION

(Outlines of tests)

Part-I (Class-XI)

Marks: 85

Part-II (Class-XII)

Marks: 85

Practical: 30

کل نمبر: ۵۸

پارٹ-I

وقت: ۰۰-۳۰ گھنٹے

حصہ اول

- ۱- تعلیم جسمانی کی تعریف اور اہمیت
- ۲- تعلیم جسمانی کے اغراض و مقاصد
- ۳- جسمانی سرگرمیوں کا دائرہ کار: ۱- تعلیمی جنسٹنک ۲- تفریحی مشاغل ۳- قامت اور قدامتی نقائص
- ۴- منظم کھیل۔ لڑکوں کے لیے:- فٹ بال، والی بال
- ۵- کسرتی کھیل: لڑکیوں کے لیے:- میٹ بال، والی بال
- ۶- لڑکوں کے لیے: ۱- گول پھینکنا ۲- سرہ جست ۳- 4 x 100 میٹر ڈاک دوڑ (ان کی مہارتیں)
- ۷- لڑکیوں کے لیے: ۱- گول پھینکنا ۲- تھالی پھینکنا ۳- 4 x 100 میٹر ڈاک دوڑ (ان کی مہارتیں)

حصہ دوم

- ۱- صحت کی تعریف اور تعلیم جسمانی سے اس کا تعلق
- ۲- انسانی جسم اور اس کی کارکردگی
- ۱- نظام دوران خون ۲- نظام تنفس
- ۳- قامت اور قدامتی نقائص اور ان کی اصلاحی ورزشیں
- ۴- ابتدائی طبی امداد:
- ۱- کسرتی ضربیں ۲- شکستگی اور اقسام شکستگی
- ۵- متعدی امراض کے اسباب اور روک تھام
- چچک، چھوٹی چچک، خسرہ، ہیضہ، تپ محرقہ (ثانی فائیز)
- نوٹ:- معروضی حصہ میں لڑکوں اور لڑکیوں کے لیے برابر چوائس (Choice) دیا جائے گا۔

پریکٹیکل لسٹ برائے فزیکل ایجوکیشن پارٹ I

پارٹ-I یونیفارم اچھا کھلاڑی اور عملی کاپی کے

۱۔ تعلیمی جمناسٹک: ۱۔ بازوں کی ورزشیں ۲۔ ٹانگوں کی ورزشیں ۳۔ دھڑکی ورزشیں

۴۔ سیدھی قلابازی ۵۔ الٹی قلابازی

۲۔ منظم کھیل: لڑکوں کے لیے: فٹ بال، والی بال (ان کی مہارتیں)

لڑکیوں کے لیے: والی بال، نیٹ بال (ان کی مہارتیں)

۳۔ کسرتی کھیل: لڑکوں کے لیے: ۱۔ گولہ پھینکنا ۲۔ سہ جست ۳۔ 4 x 100 میٹر ڈاک دوڑ (ان کی مہارتیں)

لڑکیوں کے لیے: ۱۔ گولہ پھینکنا ۲۔ تھالی پھینکنا ۳۔ 4 x 100 میٹر ڈاک دوڑ (ان کی مہارتیں)

کل نمبر: ۵۸

فزیکل ایجوکیشن پارٹ-II

وقت: ۳۰-۰۰ گھنٹے

حصہ اول

۱۔ کھیلوں کی افادیت

کھلاڑی کے اوصاف

۲۔ منظم کھیل لڑکوں کے لیے: ہاکی، باسکٹ بال

لڑکیوں کے لیے: بیڈمنٹن، ٹیبل ٹینس

۳۔ کسرتی کھیل

لڑکوں کے لیے: ۱۔ نیزہ پھینکنا ۲۔ اونچی چھلانگ ۳۔ لمبی چھلانگ ۴۔ ۴۰۰ میٹر کی دوڑ

لڑکیوں کے لیے: ۱۔ نیزہ پھینکنا ۲۔ اونچی چھلانگ ۳۔ ۴۰۰ میٹر کی دوڑ

حصہ دوم

- ۱۔ جسمانی نظام: ۱۔ نظام انہضام ۲۔ نظام عضلات
- ۲۔ خوراک اور غذا: ۱۔ خوراک کے اجزاء ۲۔ متوازن خوراک ۳۔ مشروبات
- ۳۔ نشیات اور ان کے اثرات: افیون + کوئین + خواب آور گولیاں اور مارفیا، سکھیا
- ۴۔ جنسی حفظان صحت کی تعلیم:
- ۵۔ ابتدائی طبی امداد (آگ، زہر، مصنوعی تنفس)

پریکٹیکل لسٹ برائے فزیکل ایجوکیشن پارٹ-II

یونیفارم اور اچھا کھلاڑی اور عملی کاپی

۱۔ تعلیمی جنٹلمن

۱۔ پیٹھ کی ورزشیں ۲۔ پہلوؤں کی ورزشیں ۳۔ توازن کی ورزشیں

۴۔ سر کے بل کھڑے ہونا۔ ۵۔ محراب بنانا

۲۔ منظم کھیل لڑکوں کے لیے: ۱۔ ہاکی ۲۔ پاسکٹ بال (ان کی مہارتیں)

لڑکیوں کے لیے: ۱۔ بیڈمنٹن ۲۔ ٹیبل ٹینس (ان کی مہارتیں)

۳۔ کسرتی کھیل

لڑکوں کے لیے: ۱۔ نیزہ پھینکانا ۲۔ اونچی چھلانگ ۳۔ لمبی چھلانگ ۴۔ تیز دوڑ کا شارٹ (ان کی مہارتیں)

لڑکیوں کے لیے: ۱۔ نیزہ پھینکانا ۲۔ اونچی چھلانگ ۳۔ تیز دوڑ کا شارٹ (ان کی مہارتیں)

مجوزہ کتاب: ہیلتھ اینڈ فزیکل ایجوکیشن

پبلشر: طارق پبلشنگ ہاؤس برائے ٹیکسٹ بک بورڈ، لاہور۔

مصنفین: ۱۔ مس صابرہ اعظم ۲۔ مس ای۔ یو خان

ایڈیٹر: ونگ کمانڈر (ریٹائرڈ) حمید علی صوفی

EDUCATION**Marks: 100****PART-I (Class- XI)****Time: 3:00 Hours****UNIT-I****Weightage 40%****CHAPTER-I EDUCATION**

Concepts	Contents
1. Introduction to Education 2. Elements of Education 3. Functions of Education	1. Importance and description of Education 2. Role and Scope of Education as a subject/discipline <ul style="list-style-type: none"> • Teachers • Students • Content areas • Milieu • Environment Culture 3. Function of Education 4. Model of Education. Formal, informal and non-formal <ul style="list-style-type: none"> • Conversation • Transmission • Reformation

CHAPTER-II AIMS OF EDUCATION

1. Aims of Education	1. Spiritual and Moral aims 2. Intellectual aims 3. Economic / Vocational aims 4. Citizenship (Socio-cultural) aims 5. Types of Education <ul style="list-style-type: none"> • Specific • General
----------------------	---

CHAPTER-III FOUNDATIONS OF EDUCATION

1. Foundation of Education 2. Islamic Foundation 3. Philosophical foundation 4. Psychological foundation	1. Introduction 2. Islamic Foundation of Education 3. Importance of Education in Islam 4. Sources of knowledge Philosophical foundations.
---	---

	<ol style="list-style-type: none"> 5. What is Philosophy, Philosophical Foundation. <ul style="list-style-type: none"> • Ideology • Religious • Customs, nouns & students 6. Relationship between philosophy and Education 7. Contribution of Philosophy to Education Psychological foundations. 8. What is Psychology? 9. Relationship between Education and Psychology. 10. Contribution of Psychology of Education 11. Meaning of Sociology and Economics 12. Relationship and Contribution of Sociology and Economics to Education <ul style="list-style-type: none"> • Social benefits • Economics benefits
--	---

UNIT-II**Weightage 20%****CHAPTER-IV HUMAN DEVELOPMENT**

<ol style="list-style-type: none"> 1. Human development 2. Factors effecting development 3. Individual differences (meaning and definition) 	<ol style="list-style-type: none"> 1. Explanation of the concepts of Human Development and Growth 2. Difference between growth and development with examples Principles of Development <ul style="list-style-type: none"> • Nature • Nurture • Family Care • Food • Climate • Heredity • Environment
--	--

4. Causes of individual differences	3. Individual differences and teaching learning process.
-------------------------------------	--

CHAPTER-V LEARNING

<ol style="list-style-type: none"> 1. Learning 2. Methods of learning 3. Laws of Learning 4. Conditions of learning 5. Theories of learning 	<ol style="list-style-type: none"> 1. Meaning and definitions 2. Trail and error, imitation, insight (arising from intellectual rigour, learning by doing). 3. Law of readiness 4. Law of Exercise 5. Law of Effective 6. Readiness, motivation, interest Attention, meaningful / relevant, attitude 7. Behaviorist theories 8. Cognitive theories
--	--

UNIT-III**Weightage 30%****CHAPTER-VI SOCIETY COMMUNITY AND EDUCATION**

<ol style="list-style-type: none"> 1. Society Community and Education 2. Development 3. Progress 	<ol style="list-style-type: none"> 1. Society and community (meaning and definition) 2. Explain the Interrelationship of society and Education. 3. Description of the role of education in the development of individual and society.
---	--

CHAPTER-VII GUIDANCE AND COUNSELING

<ol style="list-style-type: none"> 1. Guidance and counseling 2. Methods 	<ol style="list-style-type: none"> 1. Guidance and counseling (meaning and definition) 2. Needs & role of guidance and counseling in school. 3. Forms of guidance (Education and Career) 4. Need and importance of counseling in schools. 5. Types and methods of counseling
--	---

CHAPTER-VIII CURRICULUM, SYLLABUS AND TEXTBOOK

<ol style="list-style-type: none"> 1. Curriculum, syllabus and textbooks 	<ol style="list-style-type: none"> 1. Meaning and definition of curriculum
---	---

2. Curriculum development 3. Impact of teaching learning process 4. Discussion regarding characteristics of good curriculum 5. Characteristics of good textbooks 6. Impact of curriculum on effective teaching learning process	2. Differences between curriculum, syllabus and textbooks. 3. Components of curriculum and their interrelationship. 4. Importance of Assessment and evolution.
---	--

Marks: 100**PART-II (Class- XII)****Time: 3.00 Hours****UNIT-I****Weightage 47%****CHAPTER-IX MUSLIM EDUCATION IN SUB-CONTINENT**

Concepts	Contents
Salient features of Education system of Muslim Era.	1. Historic back ground (Maktab, Madrassa Education) 2. Contribution of Muslim thinkers towards education with special reference to: <ul style="list-style-type: none"> • Al-Ghazali • Ibni-Khaldon • Ibni-Seena • Al-Zurnuzi 3. Concept of knowledge 4. Aims & objective of education 5. Curriculum 6. Methods of teaching 7. Student training relationship 8. Salient feature, of the Muslim system of Education in Indo-Pak <ul style="list-style-type: none"> • Objectives • Curriculum and Content • Administration • Teaching Methods • Evaluation

CHAPTER-X BRITISH EDUCATION SYSTEM IN SUB-CONTINENT

British Education system in the sub-continent	<ol style="list-style-type: none"> 1. Introduction 2. Beginning of East Indian Company <ul style="list-style-type: none"> • Charter act (1813) • Woods dispatch (1854) • Sergeant Report (1944) 3. Muslim Education Movements: <ul style="list-style-type: none"> • Deoband Movement • Ali Garh Movement
---	--

CHAPTER- XI POLICIES AND PLANS OF EDUCATION IN PAKISTAN

Policies and plans of Education in Pakistan	<p>Introduction:</p> <ul style="list-style-type: none"> • Implications of Ideology of Pakistan for Education • Salient feature of the following Education policy • First Educational Conference 1947 • Report of the commission on NE, 1959, • Education Policy 1970. • Education Policy 1972. • Education Policy 1972-80. • NEP and Implemental Programme 1979. • National Education Policy 1992-2002. • National Education Policy 1998-2010.
---	---

UNIT-II Weightage 43%

CHAPTER-XII EDUCATIONAL PROBLEMS IN PAKISTAN

Issues and problems.	<ul style="list-style-type: none"> • Educational issues and problems in Pakistan: • Population growth • Low Enrolment and heavy drop out • Low literacy • Indiscipline • Female Education • Economic and social conditions
----------------------	---

	<ul style="list-style-type: none"> • Physical condition of educational institutions • Quality of Education • Investment in Education • General attitude towards education
--	---

**CHAPTER-XIII ROLE OF VARIOUS ORGANIZATIONS
CONTRIBUTING TOWARDS EDUCATION**

<ol style="list-style-type: none"> 1. Organization. 2. Administration. 3. Management. 4. Public Private Sectors. 	<ol style="list-style-type: none"> 1. Administration: <ul style="list-style-type: none"> • University Education • Provincial Department of Education • District level Management. • Private Sector organizations 2. Curriculum and textual material development <ul style="list-style-type: none"> • Federal Ministry of Education Curriculum Wing • Provincial Bureaus of Curriculum • Textbook Boards • Private Sector organization 3. Staff Development <ul style="list-style-type: none"> • Colleges of Education • Government Elementary College of Education • Private Sector Organization 4. Examination: <ul style="list-style-type: none"> • Federal Board of Intermediate and Secondary Education (FBISE) • Provincial Boards of Intermediate and Secondary Education (BISES) • Boards of Technical Education (BTE) • Rural Development Education
--	--

Recommended Book: Education Part-I &II

Authors: 1) Prof. Dr. Irshad Ahmad Farakh 2) Abdul Salam Ch.

Publisher: Raza Book Depot, Lahore.

GEOLOGY

Distribution of Marks:

Part-I (Class-XI)

Theory Marks: 85

Part-II (Class-XII)

Theory Marks: 85

Practical: 30

Total : 200

Marks: 85

PART –I(CLASS-XI)

Time: 3:00 Hours

I. PHYSICAL GEOLOGY

Rivers and Landscape

Geological Processes. Weathering and Erosion.

Processes of Stream Erosion; Transportation by streams. Competence and Capacity of Streams. Drainage Basin. Valley Growth. Base level; Groded Stream. Cross Profile, Drainage Pattern, Meandering. Cycle of Erosion. Land forms like Questa, Escarpment, Dipslope. Mesa.

Groundwater

Porosity and Permeability; Groundwater zones; Movement and Discharge of Groundwater; Erosion and Transportation due to Groundwater; Deposition by Groundwater; Water-logging and Salinity in Pakistan.

II. CRYSTALLOGRAPHY

Elements of symmetry, plane, axis and centre of symmetry. Symmetry of normal classes only. An outline study of the six systems of symmetry.

III. MINERALOGY

The common rock-forming minerals; their physical characters, chemical composition and modes of origin and occurrence; Quartz, Felspar Mica. (Muscovite and Biotite), Olivine, Augite, Hornblende, Garnet, Tourmaline, Eepidote, Chlorite, Apatite, Zircon, Kyanite.

Economic minerals, and rocks, their chemical composition, occurrence and uses; Diamond, Graphite, Sulphur, Gold, Silver, Copper,

Magnetite, Haematite, Limonite, Galena, Zincblende, Cinnabar, Stibnite, Chalcopyrite, pyrite, Orpiment, Argentite, Corundum, Cassiterite, Chromite, Spinel, Rutile, Bauxite, Pyrolusite Psilomelane, Magnesite, Siderite, Aragonite, Malachite, Apatite, Halite, Magnanite, Rhodocrosite, Calcite, Dolemite, Flourite, Barytes, Celestite, Gypsum.

IV. PETROLOGY

What is magma. What are igneous rocks and how they are formed
 What are sedimentary rocks. How they are formed. Classification of Sedimentary rocks. What is metamorphism. What are the main types of metamorphism and how the metamorphic rocks are formed. Outline classification of igneous rocks. An outline of their modes of origin and their recognition. Granite, Aplite, Pegmatite, Granite Porphyry, Felsite, Felsite porphyry, Obsidian, Pitchstone, Pertite, Pumice, Volcanic ash, Tuff, Breccia, Agglomerate, Diorite, Quartz Diorite, Diorite porphyry, Basalt Porphyry, Melaphyre, Basalt Trap, Trap, Andesite, Gabbro Diabase, Quartz Gabbro, porphyry, Pyroxenite, Dunite, Hornblendite/Peridotite, Serpentine.

Common sandstone, Graywacke, Limestone, Dolomite, Marl, Conglomerate, Shale, Mudstone, Siltstone.

Quartzite, Chlorite acdnolite schists, Biotite Schist, Garnet Mica Sohist, Gneiss, Granite Gneiss, Kyanite, Amphi bolite, Talc schist, Serpentinite, Hornfelse.

Marks: 85 PART –II(CLASS-XII) Time: 3:00 Hours

I. PALAEONTOLOGY

General Introduction to animal kingdom. Brief resume of Invertebrate Palaeontology.

Classification of Vertebrates upto class level. Brief outline of Jawless Vertebrates, Fishes, Amphibians, Reptiles, Birds and Mammels. Sequence of vertebrates through time. Cainozoic fossil vertebrates.

II. STRATIGRAPHY: Introduction to stratigraphy.

Principles of Stratigraphy. Standard Time Scale. Significance of terms used in Time Scale. Distribution of Vertebrate fossils in Siwalik

Group of Pakistan and its important Vertebrate fossils. Brief description of the Indus Basin.

III. **PHYSIOGRAPHY**

Physical features of Pakistan.

(1) **Geological Structures**

Structures produced by diastrophism.

(2) **Nature of Earth Movements**

Orogenesis. Epeirogenesis, Folded mountain, Geosynclines, Mountain building,

(3) **Faulting**

Elements of faults. Simple classification of faults (displacement and slip-classifications).

(4) **Joints and Cleavage**

Elementary concepts.

LIST OF PRACTICAL FOR PART-I & II

Interpretation of morphology from toposheets including profile drawing. Definition of Outcrop, dip and strike. Simple completion of outcrop and determination of dip. Drawing of simple geological sections.

Determination of the hardness of minerals, determination of specific gravity of minerals and rocks by Walker's and Jolly's balance.

Recommended Books

1. Geology: An Introduction to Principles of Physical and Historical Geology (Second Edition) by Richard M. Pearl.
2. Geology by Richard M. Field (Fourth Edition).
3. An Introduction to Geology by Sir Arthur E. Trueman.
4. Rutley's elements of Mineralogy by H.H. Read.

SOCIOLOGY

(There will be two papers of 100 marks each)

Marks: 100

PART –I

Time: 3 Hours

GENERAL SOCIOLOGY

Syllabus

I. Introduction:

1. Definition of Sociology.
2. Sociology as a scientific discipline.
3. Important fields of Sociology.
4. Sociology in every day life.

II. Social Action and Social Interaction

1. Definition.
2. Distinction.

III. Social Group

1. Definition.
2. Formation of Social Groups.
3. Types: primary group; secondary group membership group, non-membership groups in-group, out group; locality group, formal and informal group.

IV. Role and Status :

1. Definition.
2. Types: ascribed, achieved.
3. Role conflict.

V. Norms, Sanctions and Values;

1. Definition.
2. Types of norms: folkways, mores, laws.
3. Types of sanctions: positive, negative; formal, informal.
4. Non-conformity and Social control.
5. Value conflict.

VI. Origin and Development of Society:

1. Nature of man:
2. Difference between animal and human society.
3. Important factors in the development of society.
4. Types: rural-urban nomadic-sedentary; traditional-modern.

VII. Culture:

1. Definition.
2. Uniformities and variabilities of culture.

3. Cultural change and its processes: diffusion, acculturation, accommodation assimilation.
4. Cultural Relativism and Ethnocentrism:

VIII. Social Institutions:

1. Definition.
2. Major institutions: Family education, religion, polity, economy

IX. Social Stratification:

1. Definition.
2. Class and caste.
3. Social mobility.
4. Determinants of social stratification.

X. Social Change:

1. Definition.
2. Social change and its processes.

Marks: 100

PART –II

Time: 3 Hours

PAKISTANI SOCIETY AND CULTURE

I. Introduction:

1. Ethnic origin of Pakistani people.
2. Cultural heritage, ideological foundations of Pakistan.

II. Pakistani society -Sub - Cultural Composition

1. Major sub-cultural groups in Pakistan.
2. Similarities and differences among different Sub-cultural groups.
3. Problems of national integration

III. Village Life in Punjab:

1. Village settlement.
2. Major Institutions: Family and Braderi, Political relations, Economic relations, Religion Education.

IV Population of Pakistan:

1. Size
2. Current Growth patterns.
3. Composition: age, sex, education.
4. Distribution - Regional and rural-urban.
5. Growth of cities.

V. Social Problems in Pakistan:

1. Over population, its implications and remedies.
2. Poverty, its causes and possible remedies.
3. Illiteracy, its implications and remedies.

PHYSICS

(Distribution of Marks:)

Part-I (Class-XI)

Part-II (Class-XII)

Theory: 85

Theory: 85

Practical: 30

Total: 200

...Marks: 85

PART –I(CLASS-XI)

Time: 3:00 Hours

CHAPTER 1 MEASUREMENTS

- 1 Introduction to Physics
- 2 Physical Quantities
- 3 International System of Units
Base Units, Supplementary Units, Derived Units, Scientific Notation, Conventions for Indicating Units
- 4 Error and uncertainties
- 5 Significant Figures
- 6 Precision and Accuracy
- 7 Assessment of Total Uncertainty in the Final Result
For Addition and Subtraction, For Multiplication and Division, For Power Factor, For Uncertainty in the average value of many measurements, For the Uncertainty in a timing Experiment
- 8 Dimensions of Physical Quantities
Checking the Homogeneity of Physical Equation, Deriving a Possible Formula

CHAPTER 2 VECTORS AND EQUILIBRIUM

- 1 **Basic Concepts of Vectors**
Vectors, Rectangular Coordinate System, Addition of Vectors, Resultant Vector, Vector Subtraction, Multiplication of a Vector by a Scalar, Unit Vector, Null Vector, Equal Vectors, Rectangular Components of a Vector, Determination of a Vector from its Rectangular Components, Position Vector
- 2 **Vector Addition by Rectangular Components**
- 3 **Product of Two Vectors**
Scalar or Dot Product, Vector or Cross Product
- 4 **Torque**
- 5 **Equilibrium of Forces**
First Condition of Equilibrium
- 6 **Equilibrium of Torques**
Second Condition of Equilibrium

CHAPTER 3 MOTION AND FORCE**1 Displacement****2 Velocity****3 Acceleration****4 Velocity-Time Graph****5 Review of Equations of Uniformly Accelerated Motion****6 Newton's Laws of Motion****7 Momentum**

Momentum and Newton's Second Law of Motion, Impulse, Law of Conservation of Momentum

8 Elastic and Inelastic Collisions

Elastic Collision in one Dimension

9 Force due to Water Flow**10 Momentum and Explosive Forces****11 Rocket Propulsion****12 Projectile Motion**

Height of the Projectile, Time of Flight, Range of the Projectile, Application to Ballistic Missiles

CHAPTER 4 WORK AND ENERGY**1 Work done by a Constant Force****2 Work done by a Variable Force****3 Work Done in Gravitational Field****4 Power**

Power and Velocity

5 Energy

Work-Energy Principle, Absolute Potential Energy, Escape Velocity

6 Interconversion of Potential Energy and Kinetic Energy**7 Conservation of Energy****8 Non conventional Energy Sources**

Energy from Tides, Energy from Waves, Solar Energy, Energy from Biomass, Energy from Waste Products, Geothermal Energy

CHAPTER 5 CIRCULAR MOTION**1 Angular Displacement****2 Angular Velocity****3 Angular Acceleration****4 Relation Between Angular and Linear Velocities****5 Centripetal Force****6 Moment of Inertia**

- 7 Angular Momentum**
- 8 Law of Conservation of Angular Momentum**
- 9 Rotational Kinetic Energy**
Rotational Kinetic Energy of a Disc and a Hoop
- 10 Artificial satellites**
- 11 Real and Apparent Weight**
- 12 Weightlessness in Satellites and Gravity Free System**
- 13 Orbital Velocity**
- 14 Artificial Gravity**
- 15 Geostationary Orbits**
- 16 Communication Satellites**
- 17 Newton's and Einstein's Views of Gravitation**

CHAPTER 6 FLUID DYNAMICS.

- 1 Viscous Drag and Stokes's Law**
- 2 Terminal Velocity**
- 3 Fluid Flow**
- 4 Equation of Continuity**
- 5 Bernoulli's Equation**
- 6 Applications of Bernoulli's Equation**
Torricelli's Theorem, Relation between Speed and Pressure of the Fluid, Venturi Relation, Blood Flow

CHAPTER 7 OSCILLATIONS

- 1 Simple Harmonic Motion**
Instantaneous Displacement and Amplitude of Vibration, Vibration, Time Period, Frequency, Angular Frequency
- 2 SHM and Uniform Circular Motion**
Displacement, Instantaneous Velocity, Acceleration in terms of ω
- 3 Phase**
- 4 A Horizontal Mass Spring System**
- 5 Simple Pendulum**
- 6 Energy Conservation in SHM**
- 7 Free and Forced Oscillations**
- 8 Resonance**
- 9 Damped Oscillations**
- 10 Sharpness of Resonance**

CHAPTER 8 WAVES

- 1 Progressive Waves**
Transverse and Longitudinal Waves

2 Periodic Waves

Transverse Periodic Waves, Longitudinal Periodic Waves

3 Speed of Sound in Air

Effect of Variation of Pressure, Density and Temperature on the Speed of Sound in a Gas

4 Principle of Superposition**5 Interference****6 Beats****7 Reflection of Waves****8 Stationary waves****9 Stationary Waves in a Stretched String****10 Stationary Waves in air Columns****11 Doppler Effect**

Applications of Doppler Effect

CHAPTER 9 PHYSICAL OPTICS.**1 Wavefronts****2 Huyen's Principle****3 Interference of Light Waves**

Conditions for Detectable Interference

4 Young's Double Slit Experiment**5 Interference in thin Films****6 Newton's Rings****7 Michelson's Interferometer****8 Diffraction of Light****9 Diffraction due to a Narrow Slit****10 Diffraction Grating****11 Diffraction of X-Rays by Crystals****12 Polarization**

Production and Detection of Plane Polarized Light, Optical Rotation

CHAPTER 10 OPTICAL INSTRUMENTS**1 Least Distance of Distinct Vision****2 Magnifying Power and Resolving Power of Optical Instruments.****3 Simple Microscope****4 Compound Microscope****5 Astronomical Telescope****6 Spectrometer****7 Speed of light****8 Intrduction of Fibre Optics**

- 9 Fibre Optic Principles
- 10 Types of Optical Fibres
- 11 Signal Transmission and Conversion to Sound
- 12 Losses of Power

CHAPTER 11 HEAT AND THERMODYNAMICS

- 1 Kinetic Theory of Gases
Pressure of Gas, Interpretation of Temperature, Derivation of Gas Laws
- 2 Internal Energy
- 3 Work and Heat
- 4 First Law of Thermodynamics
Isothermal Process, Adiabatic Process
- 5 Molar Specific Heats of a Gas
- 6 Reversible and Irreversible Processes
- 7 Heat Engine – Diesel Engine
- 8 Second Law of Thermodynamics
- 9 Carnot Engine and Carnot's Theorem
- 10 Thermodynamic Scale of Temperature
- 11 Petrol Engine- Diesel Engine
- 12 Entropy
- 13 Environmental Crisis as Entropy Crisis

**LIST OF EXPERIMENTS IN PHYSICS
FOR CLASS XI (PART-I)**

- 1. To find the volume of a cylinder using Vernier Calliper
- 2. To find the area of cross section of a wire or volume of small sphere using microcenter screw gauge.
- 3. To find the unknown weight of a body by the method of vector addition of forces.
- 4. Determination of value of 'g' by free fall using an electronic timer/ticker timer
- 5. Verification of following relations of the simple pendulum;
 - (i) Time period is independent of the amplitude.
 - (ii) Time period is independent of its mass or density of the bob
 - (iii) Time period is directly proportional to the square root of its length. .
- 6. To find the acceleration due to gravity by oscillating mass-spring system

7. To study the laws of conservation of momentum by colliding trolleys and ticker timer for elastic and inelastic collisions.
8. Verify the second condition of equilibrium using a suspended meter rod.
9. To study the fall of a body through a viscous medium and hence to deduce the co-efficient of viscosity of the medium.
10. To determine Young's modulus of wire by Searle's apparatus
11. To find the moment of inertia of a fly-wheel.
12. Determination of frequency of A.C. by Melde's apparatus/electric sonometer.
13. Investigation of three laws of vibration of stretched strings by sonometer or electromagnetic method
14. To determine the wave length of sound in air using stationary waves and to calculate, the speed of sound.
15. To determine the focal length of a convex lens by displacement method
16. To determine the focal length of a concave lens using
(i) Concave mirror (ii) Convex lens
17. To find the refractive index of the material of a prism, using & laser or spectrometer
18. To find the refractive index of the material of a prism by critical angle method
19. To find the refractive index of a liquid using a concave mirror
20. To determine the wave length of sodium light by Newton's Rings.
21. To determine the wave length of light by diffraction grating using spectrometer or laser.
22. To measure the diameter of a wire or hair using laser.
23. Setting up a telescope and determination of its, magnifying power and length:
24. To find the coefficient of linear expansion of the material of a rod by Pullinger's apparatus.
25. To measure the mechanical equivalent of heat by electrical method

**ESTIMATED TIME ALLOCATION AND WEIGHTAGE FOR
VARIOUS CHAPTERS
PHYSICS CLASS XI (PART-I)**

Theory	Content	Periods	Weight age
Chapter 1	Measurements	13	7%
Chapter 2	Vectors and Equilibrium	13	7%
Chapter 3	Motion and Force	10	6%
Chapter 4	Work Power and Energy	11	7%
Chapter 5	Circular motion	11	7%
Chapter 6	Fluid Dynamics	10	6%
Chapter 7	Oscillations,	14	10%
Chapter 8	Waves	14	10%
Chapter 9	Physical Optics	16	13%
Chapter 10	Optical instruments	16	12%
Chapter 11	Heat and Thermodynamics	22	15%
Total		150	100%

1 Practicals:150 PeriodsGrand Total: 300

Recommended Book: Physics Part-I

Authors:

- | | |
|----------------------------------|----------------------------------|
| 1) Prof. Dr. Ijaz Mujtaba Ghauri | 2) Prof. Dr. Mrs. Fouzia Saleemi |
| 3) Prof. Dr. M. Zakaria Butt | 4) Prof. Muhammad Ali Shahid |
| 5) Prof. Muhammad Nisar | 6) Prof. Dr. Khadim Hussain |
| 7) Prof. Jawaid Tariq | 8) Prof. Fayyaz Mahmood |
| 9) Prof. Miss. Surriya Usmani | 10) Mr. Aamer Riaz |

Publisher:Jan Book Depot, Lahore.(Punjab Textbook Board, Lahore)

Marks: 85 PART –II (CLASS-XII) Time: 3:00 Hours

CHAPTER 12 ELECTROSTATICS

- 1 Coulomb's Law
- 2 Fields of Force
- 3 Electric Field Lines
- 4 Applications of Electrostatics
- 5 Electric Flux
- 6 Electric Flux through a Surface enclosing a Charge
- 7 Gauss's Law
- 8 Applications of Gauss's Law
- 9 Electric Potential
- 10 Electron Volt
- 11 Electric and Gravitational Forces (A Comparison)
- 12 Charge on an Electron by Millikan's Method
- 13 Capacitor
- 14 Capacitance of a Parallel Plate Capacitor
- 15 Electric Polarization of Dielectrics
- 16 Energy Stored in a Capacitor
- 17 Charging and Discharging Capacitor

CHAPTER 13 CURRENT ELECTRICITY

- 1 Electric Current
- 2 Source of Current
- 3 Effects of Current
- 4 Ohm's Law
- 5 Resistivity and its Dependence upon Temperature
- 6 Colour code for Carbon Resistances
- 7 Electrical Power and Power Dissipation in Resistors
- 8 Electromotive force (EMF) and Potential Difference
- 9 Kirchhoff's Rules
- 10 Wheatstone Bridge
- 11 Potentiometer

CHAPTER 14 ELECTROMAGNETISM

- 1 Magnetic Field due to Current in a long Straight Wire
- 2 Force on a Current Carrying Conductor in a Uniform Magnetic Field
- 3 Magnetic Flux and Flux Density
- 4 Ampere's Law and Determination of Flux Density B
- 5 Force on a Moving Charge in a Magnetic Field

- 6 Motion of Charged Particle in an Electric and Magnetic Field
- 7 Determination of e/m of an Electron
- 8 Cathode ray Oscilloscope
- 9 Torque on a Current Carrying Coil
- 10 Galvanometer
- 11 Avo Meter - Multimeter

CHAPTER 15 ELECTROMAGNETIC INDUCTION

- 1 Induced EMF and Induced Current
- 2 Motional EMF
- 3 Faraday's Law and Induced EMF
- 4 Lenz's Law and Direction of Induced EMF
- 5 Mutual Induction
- 6 Self Induction
- 7 Energy Stored in an Inductor
- 8 Alternating Current Generator
- 9 D.C. Generator
- 10 Back Motor Effect in Generators
- 11 D.C. Motor
- 12 Back EMF Effect in Motors
- 13 Transformer

CHAPTER 16 ALTERNATING CURRENT

- 1 Alternating Current
- 2 A.C. Circuits
- 3 A.C. through a Resistor
- 4 A.C. through a Capacitor
- 5 A.C. through an Inductor
- 6 Impedance
- 7 R-C and R-L Series Circuits
- 8 Power in A.C. Circuits
- 9 Series Resonance Circuit
- 10 Parallel Resonance Circuit
- 11 Three Phase A.C. Supply
- 12 Principle of Metal Detectors
- 13 Choke
- 14 Electromagnetic Waves
- 15 Principle of Generation, Transmission and Reception of Electromagnetic Waves
- 16 Modulation

CHAPTER 17 PHYSICS OF SOLIDS

- 1 Classification of Solids
- 2 Mechanical Properties of Solids
- 3 Electrical Properties of Solids
- 4 Superconductors
- 5 Magnetic Properties of Solid

CHAPTER 18 ELECTRONICS

- 1 Brief Review of p-n Junction and its Characteristics
- 2 Rectification
- 3 Specially Designed p-n Junctions
- 4 Transistors
- 5 Transistor as an Amplifier
- 6 Transistor as a Switch
- 7 Operational Amplifier
- 8 Op-Amp as Inverting Amplifier
- 9 Op-Amp as Non-Inverting Amplifier
- 10 Op-Amp as A Comparator
- 11 Comparator as a Night Switch
- 12 Digital Systems
- 13 Fundamental Logic Gates
- 14 Other Logic Gates
- 15 Application of Gates in control Systems

CHAPTER 19 DAWN OF MODERN PHYSICS

- 1 Relative Motion
- 2 Inertial Frame of Reference
- 3 Special Theory of Relativity
- 4 Black Body Radiation
- 5 Interaction of Electromagnetic Radiation with matter
- 6 Annihilation of Matter
- 7 Wave Nature of Particles
- 8 Uncertainty Principle

CHAPTER 20 ATOMIC SPECTRA

- 1 Atomic Spectra
- 2 Bohr's Model of the Hydrogen Atom
- 3 Inner Shell Transitions and Characteristic X-Rays
- 4 Uncertainty within the Atom
- 5 Laser

CHAPTER 21 NUCLEAR PHYSICS

- 1 Atomic Nucleus
- 2 Isotopes
- 3 Mass Defect and Binding Energy
- 4 Radioactivity
- 5 Half Life
- 6 Interaction of Radiation with matter
- 7 Radiation Detectors
- 8 Nuclear Reactions
- 9 Nuclear Fission
- 10 Fusion Reaction
- 11 Radiation Exposure
- 12 Biological Effects of Radiation
- 13 Biological and Medical uses of Radiation
- 14 Basic Forces of Nature
- 15 Building Blocks of Matter

**LIST OF EXPERIMENTS IN PHYSICS
FOR CLASS XII (PART-II)**

1. To find the resistance of a wire by slide wire bridge.
2. To find the resistance of a Galvanometer by half deflection method
3. To find the resistance of a voltmeter by drawing graph between R and I/V
4. Variation of resistance of thermistor with temperature
5. Conversion of Galvanometer into Ammeter
6. Conversion of Galvanometer into Voltmeter.
7. To find the internal resistance of a cell using a Potentiometer.
8. To determine the e.m.f of a cell using potentiometer
9. Relation between current passing through a tungsten filament lamp and the potential applied across it.
10. Variation of magnetic field along the axis of a circular coil
11. Charging and discharging of a capacitor and to measure time constant
12. Relation between current and capacitance when different capacitors are used in A C. circuit
13. Characteristics of a semi-conductor diode and calculation of forward and reverse current resistance.
14. Characteristics-of a N.P.N transistor.

15. Study of the variation of electric current with intensity of light using a photo cell.
16. To estimate the value of Planck's constant by using photo cell tube and coloured light filters.
17. Measurement of D.C and A.C voltage by cathode Ray Oscilloscope.
18. To verify truth table for logic gates.
19. To make burglar alarm using NAND gate.
20. To make a fire alarm using NOT gate.
21. Characteristics of a G.M. tube.
22. Determination of high resistance by Neon flash lamp.
23. To determine the e/m of electrons by deflection method (teltron tube)

Exercises

At least one exercise based on each of the above mentioned standard experiments making the total experiments equal to 16.

A.B Pre-assembled circuits/experimental set up should be discouraged the students themselves assemble the electrical/electronic circuits-from various components. Use of centimeter graph be made compulsory.

ESTIMATED TIME ALLOCATION AND WEIGHTAGE FOR VARIOUS CHAPTERS PHYSICS CLASS XII(PART-II)

Theory	Content	Periods	Weightage,
Chapter 12	Electrostatic	18	12%
Chapter 13	Current electricity	15	10% •
Chapter 14	Electro Magnetism	16	10%
Chapter 15	Electromagnetism Induction	12	8%
Chapter 16	Alternating current	18	12%
Chapter 17	Physics of solids	8	5%
Chapter 18	Electronics	10	7%
Chapter 19	Dawn of Modern Physics	18	12%
Chapter 20	Atomic Spectra	15	10%
Chapter 21	Nuclear Physics	20	14%
Total	*	150	100% .

CHEMISTRY

Distribution of Marks:

Part-I (Class-XI)

Part-II (Class-XII)

Theory: 85

Theory: 85

Practical: 30

Total: 200

Marks: 85

PART –I(CLASS-XI)**Time: 3:00 Hours****CHAPTER-1 THE BASIC CONCEPTS****1.1 Atom**

Evidence of Atoms, Molecule, Ion and Molecular Ion

1.2 Relative atomic mass**1.3 Isotopes**

Relative Abundance of Isotopes, Determination of Relative Atomic Masses of Isotopes by Mass Spectrometry, Average Atomic Masses

1.4 Analysis of a Compound – Empirical and Molecular Formulas

Empirical Formula, Empirical Formula from Combustion Analysis, Molecular formula

1.5 Concept of Mole

Avogadro's Number, Molar Volume

1.6 Stoichiometry**1.7 Limiting Reactant****1.8 Yield****CHAPTER-2 EXPERIMENTAL TECHNIQUES IN CHEMISTRY****2.1 Filtration**

Filtration Through Filter Paper, Filtration Through Filter Crucibles

2.2 Crystallization

Choice of Solvent, Preparation of the Saturated Solution, Filtration, Cooling, Collecting the Crystals, Drying of the Crystallized Substance, Decolourization of Undesirable Colours

2.3 Sublimation**2.4 Solvent extraction****2.5 Chromatography**

Paper Chromatography

CHAPTER- 3 THE GASES**3.1 States of matter.**

Properties of Gases, Liquids and Solids, Units of Pressure

3.2 Gas laws

- Boyle's Law, Experimental Verification of Boyle's Law of Boyle's Law
Graphical Explanation, Charles's Law, Graphical Explanation
- 3.3 General Gas Equation**
Ideal Gas Constant R, Density of an Ideal Gas
- 3.4 Avogadro's Law**
- 3.5 Dalton's Law of Partial Pressures**
Calculation of Partial Pressure of a Gas, Applications of Dalton's Law
of Partial Pressures
- 3.6 Diffusion and Effusion**
Graham's Law of Diffusion, Demonstration of Graham's Law
- 3.7 Kinetic Molecular Theory of Gases**
Explanation of Gas Laws from Kinetic Theory of Gases
- 3.8 Kinetic Interpretation of Temperature**
- 3.9 Liquefaction of Gases**
General Principle of Liquefaction, Methods of Liquefaction of Gases
- 3.10 Non-Ideal Behaviour of Gases**
Causes for Deviations from Ideality, Van der Waals Equation for Real
Gases
- 3.11 Plasma State**

CHAPTER-4 **LIQUIDS AND SOLIDS**

- Introduction**
- 4.1 Intermolecular forces**
Dipole-Dipole Forces, Dipole-Induced Dipole Forces, Instantaneous
Dipole-Induced Dipole Forces or London Dispersion Forces, Factors
Affecting the London Forces, Hydrogen Bonding, Properties and
Application of Compounds Containing Hydrogen-Bonding
- 4.2 Evaporation**
Vapour Pressure, Measurement of Vapour Pressure, Boiling Point,
Boiling Point and External Pressure, Energetics of Phase Changes,
Energy Change and Intermolecular Attraction, Change of State and
Dynamic Equilibrium
- 4.3 Liquid crystals**
- 4.4 Solids**
Introduction, Types of Solids, Properties of Crystalline Solids
- 4.5 Crystal Lattice**
Unit cell
- 4.6 Crystals and their classification**
- 4.7 Classification of Solids**

Ionic solids, Covalent Solids, Molecular Solids, Metallic Solids

CHAPTER-5 ATOMIC STRUCTURE

5.1 Sub-Atomic Particles of Atom

Discovery of Electron (Cathode Rays), Properties of Cathode Rays, Discovery of Proton (Positive Rays), Properties of Positive Rays, Discovery of Neutron, Properties of Neutron, Measurement of $\frac{e}{m}$ Value of Electron, Measurement of Charge on Electron

5.2 Rutherford's Model of Atom (Discovery of Nucleus)

5.3 Planck's Quantum Theory

5.4 Bohr's Model of Atom

5.5 Spectrum

Continuous Spectrum, Atomic or Line Spectrum, Atomic Emission Spectrum, Atomic Absorption Spectrum, Hydrogen Spectrum, Origin of Hydrogen Spectrum on the Basis of Bohr's Model, Defects of Bohr's Atomic Model

5.6 X-Rays and Atomic Number

5.7 Wave-Particle Nature of Matter (Dual Nature of Matter)

Experimental Verification of Dual Nature of Matter

5.8 Heisenberg's Uncertainty Principle

Quantum Numbers, Shapes of Orbitals

5.9 Electronic Distribution

CHAPTER-6 CHEMICAL BONDING

6.1 Introduction

Cause of Chemical Combination, Energetics of Bond Formation,

6.2 Atomic Sizes

Atomic Radii, Ionic Radii and Covalent Radii

6.3 Ionization Energy Electron Affinity and Electronegativity

6.4 Types of Bonds

Ionic Bond, Covalent bond, Modern Theories of Covalent Bond, Valence Shell Electron Pair Repulsion Theory, Valence Bond Theory, Atomic Orbital Hybridization and Shapes of Molecules, Molecular Orbital Theory

6.5 Bond Energy, bond Length and Dipole Moment

Bond Energy, Ionic Character and Bond Energy, Bond Length, Dipole Moment, Dipole Moments and Molecular Structure

6.6 Effect of Bonding on the Properties of Compounds

CHAPTER-7 THERMO CHEMISTRY**7.1 Introduction****7.2 Spontaneous and Non-Spontaneous Reactions****7.3 System, Surrounding and State Function****7.4 Internal Energy and First Law of Thermodynamics****7.5 Enthalpy**

Enthalpy of a Reaction, Formation, Atomization, Neutralization, Combustion and Solution, Measurement of Enthalpy of a Reaction

7.6 Hess's Law of Constant Heat Summation

The Born-Haber Cycle

CHAPTER-8 CHEMICAL EQUILIBRIUM**8.1 Reversible and Irreversible Reactions**

State of Chemical Equilibrium, Law of Mass Action, Units of Equilibrium Constants and its Expressions for Some Important Reactions, Relationship between Equilibrium Constants, Application of Equilibrium Constant, The Le-Chatelier's Principle

8.2 Applications of Chemical Equilibrium in Industry

Synthesis of Ammonia by Haber's Process, Preparation of Sulphur Trioxide

8.3 Ionic Product of Water**8.4 Ionization Constants of Acids (K_a)****8.5 Ionization Constants of Bases (K_b)****8.6 Lowry Bronsted Acid and Base Concept****8.7 Common Ion Effect****8.8 Buffer Solutions****8.9 Equilibria of Slightly Soluble Ionic Compounds (Solubility Product)**

Applications of Solubility Product

CHAPTER-9 SOLUTIONS**9.1 Concept of A Solution****9.2 Concentration Units of Solutions**

Percentage Composition, Molarity (Symbol, M), Molarity (Symbol, m), Mole Fraction (Symbol, x), Parts Per Million (Symbol, ppm), Interconversion of Various Concentration Units of Solutions

9.3 Types of solutions

Solutions of Solids in Liquids, Solutions of Liquids in Liquids

9.4 Ideal and Non-Ideal Solutions

Raoult's Law

9.5 Vapour Pressures of Liquid-Liquid Solutions**9.6 Solubility and Solubility Curves**

Solubility Curves, Fractional Crystallisation

9.7 Colligative Properties of Solutions

Colligative, Lowering of Vapour Pressure, Elevation of Boiling Point, Measurement of Boiling Point Elevation, Depression of the Freezing Point of a Solvent by a Solute, Measurement of Freezing Depression.

9.8 Energetics of Solution

Hydration Energy of Ions

9.9 Hydration and Hydrolysis

Hydration, Hydrates, Hydrolysis

CHAPTER-10 ELECTROCHEMISTRY**10.1 Oxidation State and Balancing of Redox Equations**

Oxidation Number or State, To Find Oxidation Number of an Element in a Compound or a Radical, Balancing of Redox Equations by Oxidation Number Method, Balancing of Redox Equations by Ion-Electron Method

10.2 Electrolytic conduction

Electrochemical Cells, Electrolytic Cells, Explanation of Electrolysis, Electrolysis Processes of Industrial Importance, Voltaic or Galvanic Cell

10.3 Electrode Potential

Standard Hydrogen Electrode, Measurement of Electrode Potential

10.4 Electrochemical Series

Applications of Electrochemical Series

10.5 Modern Batteries and Fuel Cells

Lead Accumulator, Alkaline Battery, Silver Oxide Battery, Nickel Cadmium Cell, Fuel Cells

CHAPTER-11 REACTION KINETICS**11.1 Rate of Reaction**

Instantaneous and Average Rate, Specific Rate Constant or Velocity Constant, Order of Reaction, Half Life Period, Rate Determining Step

11.2 Determination of rate of a Chemical Reaction

Physical Methods, Chemical Method

11.3 Energy of Activation**11.4 Finding the Order of Reaction**

Half Life Method, Method of Large Excess

11.5 Factors Affecting Rates of Reactions

Nature of Reactants, Concentration of Reactants, Surface Area, Light, Effect of Temperature on Rate of Reaction, Arrhenius Equation

11.6 Catalysis

Characteristics of a Catalyst, Activation of Catalyst, Enzyme Catalysis, Characteristic of Enzyme Catalysis

IMPORTANT INSTRUCTIONS TO STUDENTS IN THE LABORATORY

- I. Knowledge of precautions and laboratory safety.
- II, Knowledge of first aid and first aid kit.
- III. Familiarity with glass ware.
- IV. Cutting and bending of glass tubes.

LIST OF PRACTICAL ACTIVITIES FOR CLASS XI (PART-I)

1. Separation of a mixture of inks by paper chromatography
2. Separation and identification of lead and Cadmium ions in a mixture solution by paper chromatography.
3. Purification of commercial NaCl (common ion effect).
4. Crystallization of Benzoic acid from Water.
5. Preparation and standardization of acid-alkali solutions.
6. Determination of heat of neutralization.
7. Determination of Na_2CO_3 in a mixture solution.
8. Determination of NaHCO_3 in a mixture solution.
9. Standardization of KMnO_4 solution by standard oxalic acid solution.
10. Determination of number of water molecules of crystallization in Mohr's salt and Ferrous sulphate.
11. Determination of acetic acid in Vinegar.
12. Titration of iodine solution against sodium thiosulphate solution using starch solution as indicator.

**ESTIMATED TIME ALLOCATION AND WEIGHTAGE FOR
VARIOUS CHAPTERS CHEMISTRY XI (PART-I)****Theory Periods**

Chapter	Content	Periods	Weightage
1	The Basic concepts	14	7%
2	Experimental techniques in chemistry	X	4%
3.	The Gases	12	6%
4	Liquids and Solids	16	8%
5	Atomic structure	18	9%
6	Chemical bonding	18	9%
7	Thermo chemistry	10	5%
8	Chemical equilibrium	14	7%
9	Solutions	14	7%
10	Electro chemistry	16	8%
11	Reaction Kinetics	10	5%
	Total	150	75%

Recommended Book: Chemistry Part-I

Authors:

- 1) Prof. Dr. Ali Muhammad 2) Prof. Dr. Shams-ul-Haq Qureshi
3) Prof. Choudhry Sana Ullah 4) Prof. Dr. Muhammad Lateef Khan
5) Prof. Dr. Abid Zia 6) Prof. Dr. Akbar Hussain

Editors:

- 1) Prof. Dr. Ali Muhammad 2) Prof. Choudhry Sana Ullah
3) Prof. Dr. Abid Zia

Publisher: Idara Matboat Sulemani, Lahore.

For: Punjab TextBook Board, Lahore.

Marks: 85 PART –II(CLASS-XII) Time: 3:00 Hours

**CHAPTER-1 PERIODIC CLASSIFICATION OF ELEMENTS
AND PERIODICITY**

1.1 Introduction

Historical Background, Improvements in Mendeleev's Periodic Table

1.2 The Modern Periodic Table

Group and Periods, Some More Families in the Periodic Table, Block in the Periodic Table, Metals, Non-metals and Metalloids

1.3 Periodic Trends in Physical Properties

Atomic Size, Ionization Energy, Electron Affinity, Metallic and Non-Metallic Character, Melting and Boiling Points, Oxidation State, Electrical Conductance, Hydration Energy

1.4 Periodic Relationship in compounds

1.5 The Position of Hydrogen

CHAPTER-2 s-BLOCK ELEMENTS

2.1 Introduction

Electronic Configurations of s-Block Elements, Occurrence of Alkali Metals, Occurrence of Alkaline-Earth Metals, Peculiar Behaviour of Lithium, Peculiar Behaviour of Beryllium

2.2 General Behaviour of Alkali Metals

Trends in Chemical Properties of Alkali Metals, Trends in Chemical Properties of Alkaline-Earth Metals, General Trends in Properties of Compounds of Alkali and Alkaline-Earth Metals

2.3 Commercial Preparation of Sodium by Downs Cell

2.4 Commercial Preparation of Sodium Hydroxide by the Diaphragm cell

2.5 Role of Gypsum in Agriculture and Industry

Role of Gypsum in Agriculture, Role of Gypsum in Industries

2.6 Role of Lime in Agriculture and Industry

Role of Lime in Agriculture, Role of Lime in Industries

CHAPTER-3 GROUP IIIA AND GROUP IVA ELEMENTS

3.1 Group IIIA Elements

Occurrence (Boron and Aluminium), Peculiar Behaviour of Boron

3.2 Compounds of Boron

Borax (Sodium Tetraborate $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$), Boric Acids,

3.3 Reactions of aluminium

Reaction with Air, Reaction with Non-Metals, Reaction with Acids and Alkalies

3.4 Group IVA Elements

Occurrence of Carbon, Peculiar Behaviour of Carbon

3.5 Compounds of Carbon and Silicon

Oxides of Silicon, Silicates and their Uses, Silicones

3.6 Semiconductors**3.7 Uses of Lead Compounds in Paints**

Lead Suboxide, Pb_2O , Lead Monoxide (Litharge, Massicot) PbO , Triplumbic Tetra Oxide, (red lead, minium), Pb_3O_4 , Lead Dioxide, PbO_2 , white Lead, Lead Chromate ($PbCrO_4$)

CHAPTER-4 GROUP VA AND VIA ELEMENTS**4.1 Group VA Elements**

Introduction, General Characteristics

4.2 Nitrogen And Its Compounds

Occurrence, Oxides of Nitrogen, Oxyacids of Nitrogen

4.3 Phosphorus and its Compounds

Occurrence, Allotropes of Phosphorus, Halides of Phosphorus, Oxides of Phosphorus, Oxyacids of Phosphorus

4.4 Group VIA Elements

Group VIA Elements, General Characteristics, Occurrence, Comparison of Oxygen and Sulphur,

4.5 Sulphuric Acid (H_2SO_4)

Manufacture of Sulphuric Acid, Properties, Uses of Sulphuric Acid

CHAPTER-5 THE HALOGENS AND THE NOBLE GASES**5.1 Introduction****5.2 Occurrence****5.3 Peculiar Behaviour of Fluorine****5.4 Oxidizing Properties****5.5 Compounds of Halogens**

Hydrides (hydrogen halides, HX), Oxides of Halogens, Reactions of Chlorine with Cold and Hot NaOH, Oxyacids, Bleaching Powder, $(Ca(OCl)Cl)$

5.6 Commercial Uses of Halogens and Their Compounds

5.7 Noble Gases

Introduction, Compounds of Xenon, Fluorides of Xenon, Xenon Oxyfluorides, Oxides of Xenon, Applications of the Noble Gases

CHAPTER-6 TRANSITION ELEMENTS**6.1 Introduction**

Typical and Non-Typical Transition Elements

6.2 Properties of Transition Elements

General characteristics

6.3 Complex Compounds

Components of Complex Compounds, Chelates, Nomenclature, Geometry of Complexes

6.4 Iron

Commercial Forms of Iron, Wrought Iron, Manufacture of Wrought Iron from Cast Iron, Steel, Manufacture of Steel, Open Hearth Process, Bessemer's Process

6.5 Corrosion

Electrochemical Theory, Prevention from Corrosion, Tin Plating or Coating Iron with Tin (cathode coating), Galvanizing or Zinc Coating (anode coating)

6.6 Chromates and Dichromates

Potassium Chromate (K_2CrO_4), Properties, Potassium Dichromate ($K_2Cr_2O_7$), Properties

6.7 Potassium Permanganate ($KMnO_4$)

Properties

CHAPTER-7 FUNDAMENTAL PRINCIPLES OF ORGANIC CHEMISTRY**7.1 Introduction**

Modern Definition of Organic Chemistry

7.2 Some Features of Organic Compounds**7.3 Importance of Organic Chemistry****7.4 Sources of Organic Compounds**

Coal, Natural Gas, Petroleum

7.5 Cracking of Petroleum**7.6 Reforming****7.7 Classifications of Organic Compounds****7.8 Functional Group****7.9 Hybridization of Orbitals and The Shapes of Molecules**

7.10 Isomerism

Types of Isomerism

CHAPTER-8 ALIPHATIC HYDROCARBONS**8.1 Introduction****8.2 Nomenclature**

Common or Trivial Names, IUPAC Names, Nomenclature of Alkenes, Nomenclature of Alkynes

8.3 Alkanes or Paraffins

General Methods of Preparations, Physical Properties, Reactivity of Alkanes, Reactions, Uses of Methane

8.4 Alkenes

General Methods of Preparation, Physical Properties, Reactivity of a π -bond, Reactions of Alkenes, Uses of Ethene

8.5 Alkynes

General Methods of Preparation, Physical Characteristics, Reactivity of Alkynes, Reactions, Uses of Ethyne, Comparison of Reactivities of Alkanes, Alkenes and Alkynes

CHAPTER-9 AROMATIC HYDROCARBONS**9.1 Introduction****9.2 Nomenclature****9.3 Benzene**

Structure of Benzene, Straight Chain Structures Ruled Out., Kekule's Structure, X-Ray Studies of Benzene Structure, Modern Concepts about the Structure of Benzene Atomic Orbital Treatment of Benzene, The Stability of Benzene, The Resonance Method

9.4 Preparation of Benzene**9.5 Reactions of Benzene**

General Pattern of Reactivity of Benzene towards Electrophiles, Electrophilic Substitution Reactions, Reactions in which Benzene Ring is involved, Orientation in Electrophilic Substitution reactions

9.6 Comparison of Reactivities of Alkanes, Alkenes and Benzene**CHAPTER-10 ALKYL HALIDES****10.1 Introduction****10.2 Nomenclature of Alkyl Halides****10.3 Methods of Preparation of Alkyl Halides****10.4 Reactivity of Alkyl Halides**

10.5 Reactions of Alky Halides

Nucleophilic Substitution Reactions, Mechanism of Nucleophilic Substitution Reactions, Elimination Reactions

10.6 Grignard Reagent**CHAPTER-11 ALCOHOLS, PHENOLS AND ETHERS****11.1 Introduction****11.2 Alcohols**

Nomenclature of Alcohols, Industrial Preparation of Alcohols, Physical Properties, Reactions of Alcohols, Reactions in which C — O Bond is Broken, Reactions involving the Cleavage of O — H bond, Some other Reactions of Alcohols

11.3 Distinction Between Primary, Secondary and Tertiary Alcohols**11.4 Uses of Alcohols****11.5 Phenol**

Preparation of Phenol, Physical Properties, Reactions of Phenol, Acidic behaviour of Phenol, Reactions of Phenol due to -OH Group, Reactions of Phenol due to Benzene Ring

11.6 Ethers

Nomenclature, Preparation of Ethers, Physical Properties, Chemical Reactivity

CHAPTER-12 ALDEHYDES AND KETONES**12.1 Introduction****12.2 Nomenclature****12.3 Preparation of Aldehydes and Ketones****12.4 Reactivity of Carbonyl Group****12.5 Reactions of Carbonyl Compounds**

Nucleophilic addition Reactions, Reduction Reactions, Oxidation Reactions

12.6 Identification of Carbonyl Compounds**12.7 Uses****CHAPTER-13 CARBOXYLIC ACIDS****13.1 Introduction****13.2 Nomenclature of Carboxylic Acids**

Common or Trivial names, The IUPAC Nomenclature

13.3 General Methods of Preparation**13.4 Physical Characteristics****13.5 Reactivity of Carboxyl Group**

13.6 Reactions of Carboxylic Acids**13.7 Acetic Acid**

Laboratory Methods, Manufacture of Acetic Acid, Physical Characteristics, Reactions of Acetic Acid, Uses of Acetic Acid

13.8 Amino Acids

Essential and Non-essential Amino Acids, Nomenclature of Amino Acids, Structure of Amino Acids, Acidic and Basic Characters of Amino Acids, Synthesis of Amino Acids, Reactions of Amino Acids, Test of Amino Acids, Peptides and Proteins

CHAPTER-14 MACROMOLECULES**14.1 Introduction****14.2 Structure of Polymers****14.3 Types of Polymers****14.4 Polymerization Process****14.5 Brief Description of Synthetic Polymers****14.6 Biopolymers**

Carbohydrates, Classification of Carbohydrates, Proteins, Classification of Proteins, Structure of Proteins, Denaturation of Proteins, Importance of Proteins, Lipids, Sources of Fats and Oils, Structure and Composition of Fats and Oils, Classification, Physical Properties, Chemical Properties, Saponification Number, Rancidity of Fats or Oils, Iodine Number, Acid Number, Steroids, Importance of Lipids, Enzymes, Classification of Enzyme, Properties of Enzymes, Factors Affecting Enzyme Activity, Importance of Enzymes, Nucleic Acids, Components of Nucleic Acids

CHAPTER-15 COMMON CHEMICAL INDUSTRIES IN PAKISTAN**11.1 Introduction****11.2 Fertilizers**

Early History, What are Fertilizers

11.3 Elements Essential for Plant Growth

Micro-nutrients (Trace elements), Macro-nutrients, Requirement of a Fertilizer, Essential Qualities of a Good Fertilizer

11.4 Classification of Fertilizers

Nitrogenous Fertilizers, Phosphatic Fertilizers, Potassium Fertilizers, Fertilizer Industry in Pakistan

11.5 Cement

Early History, Definition, Raw Materials, Manufacturing Process of Cement, Wet Process, Setting of Cement, Cement industry in Pakistan

11.6 Paper Industry

Early History, Definition, Brief Description of the Process, Pulping Processes, Neutral Sulphite Semi Chemical Process

CHAPTER-16 ENVIRONMENTAL CHEMISTRY**16.1 Introduction**

Components of the Environment

16.2 Types of Pollution

Air Pollution, The Effects of Polluted Air on Environment, Water Pollution

16.3 Factors Affecting the Quality of Water

Purification of Water

16.4 Solid Waste Management

Effects of Dumping Waste in Sea and Rivers, Landfill, Incineration of the Municipal Solid Waste, Treatment of Industrial Waste, Incineration of Industrial and Hazardous Waste, Recycling of Waste

**IMPORTANT INSTRUCTIONS TO STUDENTS IN THE
LABORATORY**

- I. Knowledge of precautions and laboratory safety.
- II, Knowledge of first aid and first aid kit.
- III. Familiarity with glass ware.
- IV. Cutting and bending of glass tubes.

CONTENTS OF PRACTICAL FOR CLASS XII (PART-II)

1. Quantitative analysis of simple acid and basic radicals except insoluble and interfering radicals.
2. Estimation of Barium ions as Barium Chromate
3. Detection of elements in an organic compound (N.S. Halogens).
- 4 Identification of the following functional groups in a simple organic compound
 - (i) Carboxylic
 - (ii) Phenolic.
 - (iii) Aldehydic
 - (iv) Preparation of Aspirin. Iodoform, glucosazone and copper ammine complex.

Theory Periods CHEMISTRY XII

Chapter	Content	Periods	Weightage
1	Periodic classification of elements	12	6%
2	s-Block elements	8	4%
3	Group III and IV elements	8	4%
4	Group V and VI elements	10	5%
5	The halogens and noble gases	10	5%
6	The transition elements	12	6%
7	Fundamental principles of organic chemistry	10	5%
8.	Aliphatic hydrocarbons	10	5%
9	Aromatic hydrocarbons	8	4%
10	Alkyl halides	8	4%
11	Alcohol, phenols and ethers	10	5%
12	Aldehydes and ketones	8	4 %
13	Carboxylic Acids and their derivatives	6	3%
14	Macromolecules	8	4%
15	Common chemical industries	8	4%
16	Environmental chemistry	14	7%
	Total	150	75%

Recommended Book: Chemistry Part-II

Authors:

- | | |
|---|--|
| <p>1. Dr. Jameel Anwar
3. Dr. Shaukat Ali
5. Dr. M. Akram Kashmiri
7. Mrs. Nasreen Batool Qaiser
9. Mrs. Nazeer Ahmad Chughtai
11. Mr. Saad Ali Khan
13. Mr. Naseem Asghar Ginai
15. Mr. Iftikhar Ahmad</p> | <p>2. Dr. Imtiaz Ahmad
4. Syed Ghulam Akbar
6. Ch. Karam Elahi
8. Mr. Tariq Ahmad Niazi
10. Mr. Zafar Mehdi Zafar
12. Mr. Javed Iqbal Lodhi
14. Muhammad Shoaib Jehangir</p> |
|---|--|

Publisher: Nazriya-e-Pakistan Trust, Lahore.

For Punjab TextBook Board, Lahore.

BIOLOGY

Distribution of Marks:

Part-I (Class-XI)

Theory: 85

Part-II (Class-XII)

Theory: 85

Practical: 30

Total Marks: 200

Marks: 85

PART –I(CLASS-XI)

Time: 3:00 Hours

CHAPTER-1 INTRODUCTION

1. **Biology and Some Major Fields of Specialization**

Molecular Biology, Environmental Biology, Microbiology, Freshwater Biology, Marine Biology, Parasitology, Human Biology, Social Biology, Biotechnology.

2. **Level of Biological Organization**

Atomic & Subatomic Levels, Molecular Level, Organelles & Cell, Tissue Level, Organs & Systems, Individual (Whole Organism), Population, Community, Living World in Space

3. **Living World in Time**

Phyletic Lineage, Biological method

4. **Biology and the Service of Mankind**

Disease Control

5. **Protection and Conservation of Environment**

CHAPTER-2 BIOLOGICAL MOLECULES

1. **Introduction to Biochemistry**

2. **Importance of Carbon**

3. **Importance of Water**

Solvent Properties, Heat Capacity, Heat of Vaporization, Ionization of Water Protection

4. **Carbohydrates**

Introduction

Classification of Carbohydrates

5. **Lipids**

Introduction

Acylglycerols, Waxes, Phospholipids, Terpenoids

6. **Structure of Proteins**

Classification of Proteins

7. Nucleic Acids (DNA and RNA)

DNA (Deoxyribonucleic acid)

RNA (Ribonucleic Acid)

Introduction

Types of RNA

8. Conjugated Molecules**CHAPTER-3 ENZYMES****Introduction****1. Characteristics of Enzymes****2. Mechanism of Enzyme Action (Catalysis)****3. Factors Affecting the Rate of Enzyme Action**

Enzyme concentration, Substrate concentration, Temperature, PH value

4. Inhibitors

Irreversible inhibitors, Reversible inhibitors

CHAPTER-4 THE CELL**1. Emergence and Implication of Cell Theory**

Cell as a Unit of Structure and Function

2. Structure of a Generalized Cell

Cell wall, Cytoplasm, Cell Membrane, Endoplasmic Reticulum, Ribosomes, Golgi Apparatus, Lysosomes, Peroxisome, Glyoxysomes, Vacuoles, Cytoskeleton, Centriole, Mitochondria, plastids

3. Nucleus

Nuclear Membrane, Nucleolus, Chromosomes

4. Prokaryotic and Eukaryotic Cell**CHAPTER-5 VARIETY OF LIFE****Introduction****1. Nomenclature****2. Two to five Kingdom Classification Systems****3. Viruses**

Characteristics, Structure, Life Cycle of Bacteriophages, Classification of Viruses, Some Viral Diseases, Retroviruses, Acquired Immune Deficiency Syndrome (AIDS), Hepatitis

CHAPTER-6 KINGDOM PROKARYOTAE**Introduction****1. Discovery of Bacteria****2. Occurrence of Bacteria****3. Structure of Bacteria**

Size, Shape of Bacteria, Bacterial Cell structure, Pili and their functions, The Cell Envelope: the outer wrapping of bacteria, Cell Membrane, Cytoplasmic Matrix, Nucleoid, Plasmid, Ribosomes, Mesosomes, Granules and Storage Bodies, Spores, Cysts, Nutrition of Bacteria, Respiration in Bacteria, Growth and Reproduction.

4. Importance of Bacteria

Ecological Importance, Economic Importance, Medical Importance, Control of Bacteria.

5. Use and Misuse of Antibiotics**6. Characteristics of Cyanobacteria****7. Economic Importance****8. Nostoc**

Habitat and Occurrence, Structure, Reproduction

CHAPTER-7 KINGDOM PROTISTA OR (PROTOCTISTA)**Introduction****1. Historical Perspective****2. Diversity among Protista****3. Major Groups of Protista**

Protozoa: animal – like protists, Amoebae, Zooflagellates, Ciliates, Foraminiferans and Actinopods, Apicomplexans

4. The Algae Like Protists

Introduction, The Euglenoids, The Dinoflagellates, Diatoms, Brown Algae, Red Algae, Green Algae, Importance of Algae.

5. Fungus-Like Protists

Slime molds or myxomycota, Water Molds or Oomycota

CHAPTER-8 FUNGI**1. The Body of Fungus****2. Nutrition in Fungi****3. Reproduction**

Asexual reproduction, Sexual reproduction

4. Classification of Fungi

Zygomycota (zygomycetes or conjugating fungi), Ascomycota (ascomycetes of sac-fungi), Basidiomycota (basidiomycetes or club-fungi), Deuteromycota (deuteromycetes or imperfect fungi)

5. Land Adaptations of Fungi**6. Importance of Fungi**

Ecological importance, Commercial importance

CHAPTER-9 KINGDOM PLANATAE**Introduction****1. Classification of Plantae****2. Division Bryophyta****3. Adaptation to Land Habitat****4. Classification**

Hepaticopsida (liverworts), Bryopsida, Anthoceropsida (hornworts), Alternation of Generations, The Significance of Alternation of Generations

5. Division Tracheophyta**6. Psilopsida (Psilophyta)****7. Evolution of Leaf**

Overtopping, Planation, Fusion / webbing.

8. Lycopsida**9. Sphenopsida****10. Pteropsida**

Class Filicineae, Adiantum

11. Evolution of Seed Habit

Class Gymnospermae, Class Angiospermae, Double Fertilization, Classification of angiosperms, Angiospermic Families, Rosaceae, Floral characters, Solanaceae, Fabaceae, Caesalpinaceae, Mimosaceae, Poaceae. (Floral Characters and Economic Importance)

CHAPTER-10 KINGDOM ANIMALIA**1. Introduction****2. Development of Complexity in Animals****3. Grade Radiate****4. Grade Bilateria**

Diploblastic and Triploblastic Organization, Acoelomates, Pseudocoelomates and Coelomates

5. Parazoa

Phylum Porifera (The most Primitive Animals)

6. Grade**Radiata**

Phylum Coelentrata (Diploblastic Animals)

7. Grade – Bilateria

Triploblastic Animals – The Acoelomates, Phylum : Platyhelminthes – The Flatworms, Adaptations for Parasitic Mode of Life, Triploblastic Animals – Pseudocoelomates, Aschelminthes (Phylum Nematoda) – The Round Worms, Triploblastic Animals – Coelomates, Phylum Annelida The Segmented Worms, Phylum : Arthropoda – Animals with Jointed Legs, General Organization of Arthropoda, Economical Importance, Phylum Mollusca, Classification, Phylum Echinodermata – The Spiny Skinned Animals, Echinodermata / Affinities, Phylum Hemichordate, Phylum Chordate, Protochordata (Lower Chordata), Sub-Phylum Vertebrata, Adaptations to Aquatic Life.

CHAPTER-11 BIOENERGETICS**1. Photosynthesis**

Photosynthetic Reactants and Products, Water and Photosynthesis,

2. Chloroplasts – The Sites of Photosynthesis in Plants**3. Photosynthetic Pigments**

Chlorophylls, Carotenoids-Accessory Pigments

4. Light – The Driving Energy**5. Role of Carbon Dioxide: A photosynthetic Reactant****6. Reactions of Photosynthesis**

Light Dependent Reactions, Chemiosmosis, Light Independent (or Dark) Reactions, Respiration, Aerobic and Anaerobic Respiration, Anaerobic Respiration, Aerobic Respiration, Cellular Respiration.

CHAPTER-12 NUTRITION**1. Autotrophic Nutrition****2. Mineral Nutrition in Plants, Mineral Element Deficiencies**

Heterotrophic Nutrition Methods of Plant Nutrition, Saprophytic Nutrition, Parasitic Nutrition, Symbiotic Nutrition, Nutrition in insectivorous Plants

Methods of Animal Nutrition**3. Digestion and Absorption**

Digestion in Amoeba, Digestion in Hydra, Digestion in Planaria, Digestion in Cockroach, Digestion in Man, Absorption of Food

4. Some Common Diseases Related to Nutrition

Dyspepsia, Food Poisoning, Obesity, Anorexia Nervosa, Bulimia Nervosa, Piles, Ulcer.

CHAPTER-13 GASEOUS EXCHANGE**1. Need of Respiratory Gas Exchange****2. Advantages and Disadvantages of Gas Exchange in Air and in Water****3. Gaseous Exchange in Plants****Photorespiration and its consequences****4. Respiratory Organs in Representative, Aquatic and Terrestrial Animals**

Properties of Respiratory Surfaces in Animals, Respiration in Hydra, Respiration in Earthworm, Respiration in Cockroach, Respiration in Fish, Respiration in Frog, Respiration in Birds, Respiration in Man

5. Mechanics of Voluntary and Involuntary Regulation of Breathing in Man. Inspiration, Expiration**6. Transport of Respiratory Gases**

Transport of Oxygen & Factors, Transport of CO₂ Respiratory Disorders, Role of Respiratory Pigments, Lung Capacities.

CHAPTER-14 TRANSPORT**1. Introduction****2. Need for transport of materials****3. Transport in Plants**

Uptake of water by roots, Water potential, Plasmolysis and pressure potential

4. Ascent of sap**5. Types of transpiration**

6. Opening and closing of stomata

Factors affecting the rate of Transpiration, Transpiration as a necessary evil

7. Transportation of organic solutes

Phloem transport, Patterns of transport, The mechanism of phloem translocation/transport

8. Transport in animals

Transportation in hydra, Transportation in planaria

9. Circulatory system

Characteristics of Circulatory system, Open and closed Circulatory system, Vertebrate blood Circulatory system

10. Transport in Man

Blood Circulatory system, Plasma, Blood Cells and Cell Like Bodies,

Pumping Organ, The Heart, The Cardiac Cycle

11. Disorders

Electrocardiogram, Artificial pace maker, Blue babies, Blood vessels, Blood pressure and rate of flow of blood, Hypertension, Thrombus formation and hypertension, Heart attack, Stroke, Haemorrhage

12. Lymphatic System**13. Immunity – and its types**

WEIGHTAGE OF VARIOUS THEMES/SECTION OF SYLLABUS FOR CLASS XI

			No. of practicals
(i)	Introduction	(Chapter-1)	4%
(ii)	Unity of hfc	(Chapter 8-10)	18%
(iii)	Biodiversity	(Chapter 2-7)	38%
(iv)	Bioenergetics	(Chapter 11)	10%
(v)	Functional Biology	(Chapter 12-14)	30%
Total:			100

LIST OF PRACTICALS FOR CLASS XI (PART-I)

1. Identification of biochemicals from biological materials.
 - Iodine test for starch
 - Benedict's test for reducing sugars
 - Millon's test for Proteins/Biuret test for proteins
 - Sudan III test for fats and oils and emulsion test
 - Test for DNA (only demonstration)
2. Study of Starch break down in germinating gram seeds.
3. Study of effect of temperatures pH value and enzyme and substrate concentrate on the activity of enzyme (Pepsin).
4. Study of animals cells (frog's epithelium cell frog's buccal cavity cells) and plant Cells (mesophyll cells, leaf epidermis cells. onion epidermis cells) by staining with safranin. Acid fuchsin. methylene blue cosine.
5. To find out the effects of different concentrations of salt or sugar solutions on animal and plant cells.
6. Laboratory safety techniques and use of microscope and measurement of microscopic objects by micrometry.
7. Microbiological techniques: Preparation and sterilization of culture media and equipment growing cultures of non-pathogenic bacteria. Gram staining and microscopic examination of stained bacteria and bacteria from prepared slides.
8. Investigation of bacterial content of fresh and stale milk.
Study of Nostoc from fresh material and prepared slides.
9. Identification of Chlorella, Paramecium. Amoeba, Entamoeba. Plasmodium (malarial parasite) Euglena. Volvox. Ulothrix and Ulva from fresh materials or prepared slides.
10. Study of yeast. Ustilago tritici and Pencillium from fresh materials and slides.
11. Examination of Marchantia and Funaria (external morphology) from fresh material and of sex organs from prepared slides.
12. Study of Adiantum: Sporophyte plant body, preparation of slide of sporangia from fresh material, Prothallus (gametophyte) from fresh material or preserved material/slide.

13. Study of Pinus: male and female cones from fresh or preserved materials.
14. Study of different types of inflorescence of Cassia. Achyranthus. Morus. Iberis Brassica. Foeniculum, Avena. Helianthus. Tradescantia/Ipomoea and Euphorbia.
15. Description in technical terms including inflorescence. Floral Formula and floral diagram of commonly available flowers (e.g rose Solanum, Cassia Lathyrus odoratus. Oat) of following families of angiosperms: Rosaceae, Solanaceae, Legume family fabaceae Caesalpinniaceae / Mimosaceae) and poaceae.
16. General Survey of major animal phyla: invertebrates up to phylum and vertebrates up to class level.
17. Extraction and chromatography of leaf chloroplast pigments.
18. Investigation of effect of different concentration of glucose solution on opening and closing of stomata.
19. Study of T.S of liver stomach, small intestine and large intestine of man from prepared slides.
20. Exposure of digestive system of frog and cockroach.
21. Exposure of respiratory system of frog.
22. Demonstration of osmosis in living plant cells. (manifested by plasmolysis and deplasmolysis) of onion cells or spirogyra.
23. Determination of mean solute potential of the cell sap using method of incipient plasmolysis.
24. Investigation and measurement of factors affecting rate of transpiration using Potometer (Factors include wind removal of some leaves covering lower epidermis with vaseline)
25. Study from prepared slides of internal structure of monocot and dicot root stem and leaf.
26. Investigation of stomatal distribution (using clear nail varnish of epidermis peel).
27. Study of prepared stained slide of human blood including identification of phagocytes and lymphocytes and preparation of slide of blood smear of frog.

28. Study of structure of artery vein capillary from their T.S (prepared slides).
29. Study of effect of acetylcholine and adrenaline on the heartbeat of frog.
30. Exposure of blood circulatory system of frog (heart and main blood vessels).
31. Measurement of blood pressure during rest and after exercise with B.P apparatus.

BIOLOGY TOPIC WISE WEIGHTAGE

Chapter No.	Topic	Weightage (%age)	No. of period.
1	The Biology-Introduction	4%	6
2	Biological molecules	8%	12
3	Enzymes	2%	3
4	The Cell	8%	12
5	Variety of Life-Classification & Viruses	4%	6
6	The Kingdom Monera	6%	9
7	The Kingdom Protista	4%	6
8	The Kingdom Fungi	4%	6
9	The Kingdom Plantae	10%	15
10	The Kingdom Animalia	10%	15
11	Bioenergetics	10%	15
12	Nutrition	10%	15
13	Gaseous exchange	6%	9
14	Transport	14%	21
			150

Recommended Book: Biology Part-I

- Authors:**
- | | |
|----------------------------|-------------------------------------|
| 1. Prof. Dr. A.R. Shakoori | 2. Prof. Dr. Javed Iqbal |
| 3. Asso.Prof. Hamid Saeed | 4. Assoc.Prof. Dr. Rass Masood Khan |
| 5. Prof.Dr. Azizullah | 6. Assoc.Prof. A.R. Saeed |
| 7. Dr. Javed Iqbal | 8. Prof.Dr. Shahida Hassnain |
| 9. Mr. Javed Iqbal Mughal | 10. Mr. Shah Nawaz Cheema |
| 11. Prof.Dr. Anjum Sabri | 12. Mr. Amjad Tariq |
| 13. Mr. Zia-ul-Islam | |

Authors: Markazi Kutub Khana, Lahore

CHAPTER-15 HOMEOSTASIS**1. Concepts in Homeostasis****2. Osmoregulation**

Water relations of cell, Balance of water and solutes in the body, Osmoregulation in Plants, Osmoregulation in Animals, Osmoregulation in Different Environments, Excretion, Excretion in Plants, Excretion in Animals, Nature of Excretory Products in Relation to Habitats

3. Excretion in Representative Animals

Excretion in Hydra, Excretion in Planaria, Excretion in Earthworm, Excretion in Cockroach

4. Excretion in Vertebrates

Excretion in Human, Excretory Organs, Urinary System, Concentration of Excretory Products, Kidney as Osmoregulatory Organ, Kidney Problems and Cures

5. Thermoregulation

Adaptations in Plants to Low and High Temperature

6. Mechanisms in Animals

Body Heat, Heat Gain and Loss, Temperature Classification of Animals, Regulation of Heat Exchange between Animals and Environment

7. Thermoregulation in Mammals (Human)

Regulatory Strategies, Thermostat Function and Feedback Controls in Human, Temperature in fever (Pyrexia)

CHAPTER-16 SUPPORT AND MOVEMENTS**1. Concept and Need****2. Support in Plants**

Significance of Secondary Growth

3. Movements in Plants

Types of Movements, Role of Plants Growth Substances in Plant Movement

4. Support and Movements in Animals

Hydrostatic Skeleton, Exoskeleton, Endoskeleton

5. Human Skeleton

Axial Skeleton, Appendicular Skeleton, Joints

6. Deformities of Skeleton

Genetic Causes, Hormonal Causes, Nutritional Causes

7. Repair of Broken Bones**8. Muscles**

Smooth Muscles, Cardiac Muscles, Skeletal Muscles, Sliding Filament Model, Controlling the Actin-Myosin Interaction by Ca^{++} ions, Energy for Muscles Contraction, Muscles Fatigue, Tetany, Cramp

9. Arrangement of Skeletal Muscles for Movement of Skeleton

Movement of Bones,

10. Locomotion in Protoctista and Invertebrates

Locomotion in Euglena, Locomotion in Paramecium, Locomotion in Amoeba, Locomotion in Jelly Fish, Locomotion in Earthworm, Locomotion in Cockroach, Locomotion in Snail, Locomotion in Star Fish

11. Locomotion and Skeleton in Vertebrates

Swimming in Fishes, Locomotion in Amphibian, Locomotion in Reptiles, Locomotion in Air, Locomotion in Mammals, Evolutionary changes in the arrangement of bones and related mode of locomotion in major groups of vertebrates

CHAPTER-17 COORDINATION AND CONTROL**1. Introduction****2. Coordination in Plants**

Control Through Hormones,

3. Plant Movements**4. Responses to Environmental Stresses in Plants****5. Defense against Pathogens in Plants****6. Biological Clocks and Circadian Rhythms****7. Plant Hormones**

Auxins, Gibberellins, Cytokinins, Abscisic Acid, Ethene

8. Co-ordination in Animals**9. Nervous Co-ordination**

Receptors, Working of Sensory Receptors with Special Reference to Skin, Neurons, Effectors, Reflex Arc, Nerve Impulse, Synapse, Evolution of Nervous System

10. Human Nervous System

Central Nervous System (CNS), Peripheral Nervous System (PNS), Autonomic Nervous System, Nervous Disorders, Effect of Drugs on Coordination

11. Chemical Coordination

Hormones

12. Endocrine Glands of Mammals

Hypothalamus, The Pituitary Gland, Thyroid gland, Parathyroids, Islets of Langerhans (Pancreas), Adrenals, Gut, Gonads, Feedback Mechanism, Comparison of Nervous Coordination and Chemical Coordination

13. Behaviour

Innate Behaviour, Instincts & Learning, Learning Behaviour (Modification through experience)

CHAPTER-18 REPRODUCTION**Introduction****1. Reproduction in Plants**

Parthenocarpy, Seed Dormancy, Fruit set and Fruit ripening, Photoperiodism, Vernalisation

2. Reproduction in Animals

Asexual Reproduction

3. Tissue Culturing and Cloning**4. Identical Twins****5. Sexual Reproduction****6. Reproduction in Man**

Male Reproductive System, Female Reproductive System

7. Test Tube Babies**8. Sexually Transmitted Diseases (STD)**

Gonorrhoea, Syphilis, Genital Herpes, AIDS

CHAPTER-19 GROWTH AND DEVELOPMENT**Introduction****1. Growth and Development in Plants**

Apical Meristems, Intercalary Meristems, Lateral Meristems

2. Types of Growth

Conditions of Growth, External factors, Internal Factors, Differentiation, Growth Correlations

3. Growth and Development in Animals

Development of Chick, Mechanisms of Development, Role of Cytoplasm in Development, Role of Nucleus in Development, Concept of Differentiation, Embryonic Induction

4. Aging**5. Regeneration****6. Abnormal Development****CHAPTER-20 CHROMOSOMES AND DNA****Introduction****1. Types of Chromosomes****2. Composition of Chromosome****3. The Chromosomal Theory of Inheritance****4. DNA as Hereditary Material**

Chemical Nature of DNA, DNA Replication, The Meselson-Stahl Experiment, The Replication Process

5. What is a Gene

One-gene / one – polypeptide, How DNA encodes protein structure

6. Cells Use RNA to Make Protein

Three types of RNA, Transcription

7. Genetic Code**8. Translation****9. Mutations****CHAPTER-21 CELL CYCLE****1. Introduction****2. Interphase****3. Mitosis**

Karyokinesis, Prophase, Metaphase, Anaphase, Telophase, Cytokinesis, Importance of mitosis, Cancer (uncontrolled cell division)

4. Meiosis

ProphaseI, MetaphaseI, AnaphaseI, TelophaseI, MeiosisII, Importance of Meiosis

5. Meiotic Errors (Non-disjunction)

Down's Syndrome (Mongolism), Klinefelter's Syndrome, Turner's Syndrome, Necrosis and Apoptosis

CHAPTER-22 VARIATION AND GENETICS

- 1. Genes, Alleles and Gene Pool**
- 2. Mendel's Laws of Inheritance**
Mendel's Interpretations, Test Cross, Dihybrid and Dihybrid Cross
- 3. Dominance Relations**
Complete Dominance, Incomplete Dominance, Codominance, MN Blood Type or Blood Group System, Over Dominance
- 4. Multiple Alleles**
ABO-The First Discovered Multiple Allelic Blood Group System in Man, Rh Blood Group System
- 5. Epistasis**
Bombay Phenotype
- 6. Pleiotropy**
- 7. Continuously Varying Traits**
- 8. Gene Linkage**
- 9. Crossing Over**
Cross Over or Recombination Frequency
- 10. Sex Determination**
Sex Chromosomes, Patterns of Sex Determination, Comparison of chromosomal determination of sex between *Drosophila* and Humans, Sex Determination in Plants
- 11. Sex Linkage**
Sex Linkage in *Drosophila*, Sex-linkage in Humans, Sex Limited Trait, Sex Influenced Trait
- 12. Diabetes Mellitus and its Genetic Basis**

CHAPTER-23 BIOTECHNOLOGY**Intorduction**

- 1. Cloning of a Gene**
Recombinant DNA Technology, how to get a gene? Molecular Scissors: Restriction Endonucleases, Molecular Carrier: Vector, Recombinant DNA, Expression of the Recombinant DNA, Genomic Library, The Polymerase Chain Reaction, Analyzing DNA, Gene Sequencing

2. The Human Genome Project**Biotechnology Products**

Transgenic Bacteria, Transgenic Plants, Transgenic Animals,
Cloning of Transgenic Animals

3. Gene Therapy**4. Tissue Culture**

Genetic Engineering of Plants, Agricultural Plants with improved Traits,
Production of Products

CHAPTER-24 EVOLUTION**Introduction****1. Concept of Evolution Vs Special Creation****2. Evolution from Prokaryotes to Eukaryotes****3. Inheritance of acquired Characteristics**

Charles Darwin, Neo-Darwinism-The modern evolutionary
synthesis, Evidences of Evolution

4. Natural Selection and artificial Selection**5. Population, Gene Pool, allele and Genotype Frequencies**

Hardy-Weinberg Theorem, Factors affecting gene frequency

6. Endangered Species**CHAPTER-25 ECOSYSTEM****1. Introduction****2. Ecosystem****Biosphere Autecology, Synecology****3. Components of Ecosystem**

Biotic Components, Abiotic Components, Processes in Ecosystem
and interaction between Biotic and Abiotic Components:

4. Succession

Two Major Forms of Succession, Predation and its Significance,
Parasitism and its Significance, Symbiosis, Mutualism,
Commensalism, Grazing

5. Biogeochemical Cycles

The Nitrogen Cycle, Nitrogen Depletion and its Remedies, The flow
of Energy in Food Chain of an Ecosystem

CHAPTER-26 SOME MAJOR ECOSYSTEMS**5. Climate****6. Aquatic or Hydrospheric Ecosystem**

Productivity of Aquatic Ecosystem, Fresh Water Lakes, Intervention of Man in Aquatic Ecosystem

7. Terrestrial or Lithospheric Ecosystem

Light, Nutrients and Water, Adaptations for Terrestrial Ecosystem, Division of Terrestrial Ecosystem

8. Some Major Ecosystems in Pakistan

Temperate Deciduous Forests, Coniferous Alpine and Boreal Forests, The Grass Land Ecosystem, Desert Ecosystem, Tundra Ecosystem, Humans and Ecosystems

CHAPTER-27 MAN AND HIS ENVIRONMENT**1. Renewable and Non-renewable Resources**

Renewable Resources

2. Degradation and Depletion of Resources

Modification of Environment

3. Man's Impact on Environment

Population, Food and need of Population Control, Importance of Forests, Forest and Climate, Forest and Biodiversity

4. Pollution

Types of Pollution, Air or Atmospheric Pollution, Greenhouse Effect, Acid Rain, Water Pollution, Eutrophication or Algal Bloom, Industrial Effluents, Insecticides & Herbicides and Fertilizers

5. Health and Diseases

Classification and Causes of Diseases

WEIGHTAGE OF VARIOUS THEMES/SECTION OF SYLLABUS FOR CLASS XII

		No. of practicals
(vi)	Functional Biology (Chapter15-19)	48%
(vii)	Continuity of life (Chapter 20-22)	20%
(viii)	Genetic Frontiers (Chapter 23)	4%
(ix)	Life through ages (Chapter 24)	8%
(x)	Organisms and their Environment (Chapter 25-27)	20%
Total:		100

LIST OF PRACTICALS FOR CLASS XII (PART-II)

1. Investigation of adaptive features of hydrophytes. Halophytes xerophytes and mesophytes from fresh material and prepared slides.
2. Exposure of urino-genital system of frog.
3. Study of simple muscle twitch using frog's muscle.
Study from prepared slides of skeletal smooth and cardiac muscles and preparation of slide of striated muscles of cockroach.
4. Study of skeleton of frog.
5. Study from prepared slides of plant supporting tissues such as sclerenchyma and collenchyma.
6. Investigation of movements in plants (phototropism and geotropism)
7. Exposure of nervous system of cockroach.
8. Investigation of effects of indole acetic acid (IAA) on growth of oat coleoptile (or on the growth of germinated barley seeds)
9. Study of ductless and vascularized nature of endocrine glands (pancreas, thyroid) using microscopic sections.
10. Study of structure of hen's egg.
11. Study of development of chick embryo 48/72 hours after incubation.
12. Preparation of root tip squashes to study stages of Mitosis
13. Preparation of squashes of *Rheodiscolor* floral buds to study meiosis and observation stages of meiosis from prepared slides and study of Polytene chromosome.
14. Study of continuous variations in the height in man and discontinuous variations in tongue rolling in man and recording the result as histograms.
15. Investigation of water content of soil samples
16. Investigation of approximate soil texture (rough estimate of proportion of particles of different size in a soil sample)
17. Investigation of food chain and food web of a pond ecosystem.
18. Sampling of a grassland community by Quadrat method
19. Estimation of pyramids of numbers using simple techniques.

BIOLOGY TOPIC WISE WEIGHTAGE

15	Homeostasis Osmoregulation	10%	15
16	Support and Movements	10%	15
17	Coordination and Control	10%	18
18	Reproduction	12%	18
19	Growth and Development	6%	9
20	Chromosomes and DNA	8%	12
21	Cell Cycle	4%	6
22	Variations and Genetics.	8%	12
23	Biotechnology	4%	6
24	Evolution	8%	12
25	Ecosystem	8%	12
26	Some major ecosystems	4%	6
27	Man and-his environment	8%	13
		TOTAL	150

Recommended Book: Biology Part-I & II**Authors:**

1. Prof. Dr. A.R. Shakoori
2. Prof. Dr. Abdul Majeed Cheema
3. Assoc.Prof. Hamid Saeed
4. Assoc.Prof. Dr. Rass Masood Khan
5. Assoc.Prof. Nauman Usmani
6. Assoc.Prof. A.R. Saeed
7. Prof.Dr. Javed Iqbal Qazi
8. Assoc.Prof. Javed Akhtar Wahla
9. Asst.Prof.Dr. Farkhanda
10. Sub.Specialist Mrs. Syeda Saira Hameed
Manzoor

Publishers: Maktaba Sayeedia Lahore

MATHEMATICS

PART - I 100

PART – II 100

TOTAL: 200

Marks : 100**PART – I****Time: 3 Hours****UNIT-I****NUMBER SYSTEMS**

- 1.1 Introduction**
- 1.2 Rational Numbers and Irrational Numbers**
Decimal Representation of Rational and Irrational Numbers
- 1.3 Properties of Real Numbers**
Addition Laws, Multiplication, Properties of Equality and Inequalities
- 1.4 Complex Numbers**
Operations on Complex Numbers, Complex Numbers as Ordered Pairs of Real Numbers, Properties of the Fundamental Operations on Complex Numbers, A Special Subset of \mathbb{C}
- 1.5 The Real Line**
The Real Plane or The Coordinate Plane
- 1.6 Geometrical Representation of Complex Numbers**
The Complex Plane
- 1.7 To find real and imaginary parts**

UNIT. II**SETS FUNCTIONS AND GROUPS**

- 2.1 Introduction**
- 2.2 Operations on Sets**
- 2.3 Venn Diagrams**
- 2.4 Operations on Three Sets**
- 2.5 Properties of Union and Intersection**
- 2.6 Inductive and Deductive Logic**
Aristotelian and Non-Aristotelian Logics, Symbolic Logic.
- 2.7 Implication or conditional**
Biconditional, Conditionals related with a given conditional, Tautologies, Quantifiers
- 2.8 Truth Sets, a Link between Set Theory and Logic**
- 2.9 Relations**

- 2.10 Functions**
Linear and Quadratic Functions
- 2.11 Inverse of a Function**
- 2.12 Binary Operations**
Properties of Binary Operations
- 2.13 Groups**
- 2.14 Solution of Linear Equations**
- 2.15 Reversal Law of Inverses**

UNIT- III

MATRICES AND DETERMINANTS

- 3.1 Introduction**
Addition of Matrices, Scalar Multiplication, Subtraction of Matrices, Multiplication of two Matrices
- 3.2 Determinants of a 2 x 2 Matrix**
Singular and Non-Singular Matrices, Adjoint of a 2 x 2 Matrix, Inverse of a 2 x 2 Matrix
- 3.3 Solution of Simultaneous Linear Equations by using Matrices**
- 3.4 Field**
- 3.5 Properties of Matrix Addition, Scalar and Matrix Multiplication**
- 3.6 Determinants**
Minor and Cofactor of an Element of a Matrix or its Determinant, Determinant of a Square Matrix of Order $n \geq 3$
- 3.7 Properties of Determinants which Help in their Evaluation**
- 3.8 Adjoint and Inverse of a Square Matrix of Order $n \geq 3$**
- 3.9 Elementary Row and Column Operations on a Matrix**
- 3.10 Echelon and Reduced Echelon Forms of Matrices**
- 3.11 System of Linear Equations**
Homogeneous Linear Equations, Non-Homogeneous Linear Equations
- 3.12 Cramer's Rule**

UNIT- IV

QUADRATIC EQUATION

- 4.1 Introduction**
Solution of Quadratic Equations
- 4.2 Solution of Equations Reducible to the Quadratic Equation**
- 4.3 Three Cube Roots of Unity**
Properties of Cube Roots of Unity

- 4.4 Four Fourth Roots of Unity**
Properties of Four Fourth Roots of Unity
- 4.5 Polynomial Function**
- 4.6 Theorems**
- 4.7 Synthetic Division**
- 4.8 Relations Between the Roots and the Coefficients of a Quadratic Equation**
- 4.9 Formation of an Equation Whose Roots are Given**
- 4.10 Nature of the Roots of a Quadratic Equation**
- 4.11 System of Two Equations Involving Two Variables**
- 4.12 Problems on Quadratic Equations**

UNIT-V

PARTIAL FRACTIONS

- 5.1 Introduction**
- 5.2 Rational Fraction**
Proper Rational Fraction, Improper Rational Fraction
- 5.3 Resolution of a Rational Fraction $\frac{P(x)}{Q(x)}$ into Partial Fractions**

UNIT-VI

SEQUENCES AND SERIES

- 6.1 Introduction**
- 6.2 Types of Sequences**
- 6.3 Arithmetic Progression (A.P)**
- 6.4 Arithmetic Mean (A.M)**
Arithmetic Means Between two given Numbers
- 6.5 Series**
- 6.6 Word Problems on A.P.**
- 6.7 Geometric Progression (G.P)**
- 6.8 Geometric Means**
Geometric Means Between two given Numbers
- 6.9 Sum of n Terms of a Geometric Series**
- 6.10 The Infinite Geometric Series**
- 6.11 Word Problems on G.P.**
- 6.12 Harmonic Progression (H.P)**
Harmonic Mean, Harmonic Means Between Two Numbers
- 6.13 Relations Between Arithmetic, Geometric and Harmonic Means**
- 6.14 Sigma Notation (or Summation Notation)**
- 6.15 To Find the Formulae for the Sums**

UNIT-VII**PERMUTATIONS COMBINATION AND PROBABILITY****7.1 Introduction****7.2 Permutation**

Permutation of Things not All Defferent, Circular Permutation

7.3 Combinations

Complementary Combination

7.4 Probability

Probability that an Event does not Occur, Estimating Probability and Tally Marks, Addition of Probabilities, Multiplication of Probabilities

UNIT-VIII**MATHEMATICAL INDUCTION AND BINOMIAL THEOREM****8.1 Introduction****8.2 Principle of Mathematical Induction****8.3 Principle of Extended Mathematical Induction****8.4 Binomial Theorem**

The Middle Term in the Expansion of $(a + x)^n$, Some

Deductions from the Binomial Expansion of $(a + x)^n$

8.5 The Binomial Theorem when the Index n is a negative Integer or a Fracion**8.6 Application of the Binomial Theorem****UNIT-IX****FUNDAMENTALS OF TRIGONOMETRY****9.1 Introduction****9.2 Units of Measures of Angles**

Sexagesimal System, Conversion from $D^{\circ}M'S''$ to a decimal form and vice versa, Circular System (Radians)

9.3 Relation between the Length of an arc of a Circle and the Circular Measure of its Central Angle

Conversion of Radian into Degree and Vice Versa

9.4 General Angle (Coterminal Angles)**9.5 Angle in the Standard Position****9.6 Trigonometric Functions****9.7 Trigonometric Functions of any angle****9.8 Fundamental Identities****9.9 Signs of the Trigonometric functions**

- 9.10 The Values of Trigonometric Functions of Acute Angles 45° , 30° and 60°**
- 9.11 The values of the Trigonometric Functions of angles 0° , 90° , 180° , 270° , 360°**
- 9.12 Domains of Trigonometric Functions and Fundamental Identities**

UNIT-X**TRIGONOMETRIC IDENTITIES**

- 10.1 Introduction**
Distance Formula, Fundamental Law of Trigonometry
- 10.2 Deductions from Fundamental Law**
- 10.3 Trigonometric Ratios of Allied Angles**
- 10.4 Further Application of Basic Identities**
- 10.5 Double Angle Identities**
- 10.6 Half Angle Identities**
- 10.7 Triple Angle Identities**
- 10.8 Sum, Difference and Product of Sines and Cosines**

UNIT-XI**TRIGONOMETRIC FUNCTIONS AND THEIR GRAPHS**

- 11.1 Introduction**
Domains and Ranges of Sine and Cosine Functions, Domains and Ranges of Tangent and Cotangent Functions, Domain and Range of Secant Function, Domain and Range of Cosecant Function
- 11.2 Period of Trigonometric Functions**
- 11.3 Values of Trigonometric Functions**
- 11.4 Graphs of Trigonometric Functions**
- 11.5 Graph of $y = \sin x$ from -2π to 2π**
- 11.6 Graph of $y = \cos x$ from -2π to π**
- 11.7 Graph of $y = \tan x$ from $-\pi$ to π**
- 11.8 Graph of $y = \cot x$ from -2π to π**
- 11.9 Graph of $y = \sec x$ from -2π to 2π**
- 11.10 Graph of $y = \csc x$ from -2π to 2π**

UNIT-XII**APPLICATION OF TRIGONOMETRY**

- 12.1 Introduction**
- 12.2 Tables of Trigonometric Ratios**
- 12.3 Solution of Right Triangles**

- 12.4 (a) Heights and Distances**
(b) Angles of Elevation and Depression
- 12.5 Engineering and heights and Distances**
- 12.6 Oblique Triangles**
The Law of Cosine, The Law of Sines, The Law of Tangents, Half Angle Formulas
- 12.7 Solutions Oblique Triangles**
Case 1: When measures of one side and two angles are given
Case 2: When measures of two sides and their included angles are given
Case 3: When measures of three sides are given
- 12.8 Area of Triangle**
- 12.9 Circles Connected with Triangle**
Circum – Circle, In-Circle, Escribed Circles
- 12.10 Engineering and Circles Connected with Triangles**

UNIT-XIII

INVERSE TRIGONOMETRIC FUNCTIONS

- 13.1 Introduction**
- 13.2 The Inverse Sine Function**
- 13.3 The Inverse Cosine Function**
- 13.4 Inverse Tangent Function**
- 13.5 Inverse Cotangent, Secant and Cosecant Functions**
- 13.6 Domains and Ranges of Principal Trigonometric Function and Inverse Trigonometric Functions**
- 13.7 Addition and Subtraction Formulas**

UNIT: XIV

SOLUTIONS OF TRIGONOMETRIC EQUATIONS

- 14.1 Introduction**
- 14.2 Solution of General Trigonometric Equations**

TOPIC-WISE WEIGHTAGE & TIME (XI)

UNIT	TOPIC	WEIGHTAGE	PERIODS (45 minutes each)
I	Number Systems	5%	07
II	Sets Functions and Groups	10%	07 07
III	Matrices Determinants	10%	07 07
IV	Quadratic Equations	10%	13
V	Partial Fractions	5%	07
VI	Sequence & Series	8%	13
VII	Permutations and Combination Probability	10%	07 07
VIII	Mathematical Induction Binomial Theorem	10%	07 12
IX	Fundamentals of Trigonometry	5%	07
X	Trigonometric Identities	7%	12
XI	Trigonometric Functions and Graphs	3%	07
XII	Application of Trigonometry	7%	07
XIII	Inverse Trigonometric Functions	5%	07
XIV	Trigonometric Equations	5%	09
		100%	150 (6 periods a week)

Recommended Book: "MATHEMATICS Part-I"

Authors: Prof. Shamshad Muhammd Lodhi
 Prof. Muhammad Sharif Ghauri
 Prof. Sanaullah Bhatti
 Prof. Khalid Saleem

Published by: Tariq Book Centre Jehlum
 for Punjab Textbook Board, Lahore

Marks : 100**PART – II****Time: 3 Hours**

UNIT-I
FUNCTIONS AND LIMITS

1.1 Introduction

Concept of Function, Definition (Function – Domain – Range), Notation and Value of a Function, Graphs of Algebraic Functions, Graph of Functions Defined Piece-wise.

1.2 Types of Functions

Algebraic Functions, Trigonometric Function, Inverse Trigonometric Functions, Exponential Function, Logarithmic Function, Hyperbolic Functions, Inverse Hyperbolic Functions, Explicit Function, Implicit Function, Even Function, Odd Function

1.3 Composition of Functions and Inverse of a Function

Composition of Functions, Inverse of a Function, Algebraic Method to find the Inverse Function

1.4 Limit of a Function and Theorems on Limits

Meaning of the Phrase “x approaches zero”, Meaning of the Phrase “x approaches infinity”, Meaning of the Phrase “x approaches a”, Concept of Limit of a Function, Limit of a Function, Theorems on Limits of Function

1.5 Limits of Important Functions

$$\lim_{x \rightarrow a} \frac{x^n - a^n}{x - a} = na^{n-1}, \text{ where } n \text{ is an integer and } a > 0, \lim_{x \rightarrow 0} \frac{\sqrt{x+a} - \sqrt{a}}{x} = \frac{1}{2\sqrt{a}}$$

, Limit at Infinity, Method for Evaluating the Limits at Infinity,

$$\lim_{x \rightarrow +\infty} \left[1 + \frac{1}{n} \right]^n = e, \lim_{x \rightarrow 0} \frac{a^x - 1}{x} = \log_e a, \text{ The Sandwich Theorem, If } \theta \text{ is measured in radian, then } \lim_{\theta \rightarrow 0} \frac{\sin \theta}{\theta} = 1$$

1.6 Continuous and Discontinuous Functions

One-Sided Limits, Criterion for Existence of Limit of a Function, Continuity of a function at a number

1.7 Graphs

Graph of the Exponential Function $f(x) = a^x$, Graph of the Exponential Function $f(x) = e^x$, Graph of Common Logarithmic Function $f(x) = \lg x$, Graphs of Natural Logarithmic Function $f(x) = \ln x$, Graphs of Implicit Functions,

Graph of Parametric Equations, Graphs of Discontinuous Functions, Graphical Solution of the Equations

UNIT. II

DIFFERENTIATION

- 2.1 Introduction**
Average Rate of Change, Derivative of a Function
- 2.2 Finding $f'(x)$ from definition of derivative**
Derivation of x^n where $n \in \mathbb{Z}$, Differentiation of Expressions of the Types
- 2.3 Theorems on Differentiation**
- 2.4 The chain rule**
- 2.5 Derivatives of inverse functions**
- 2.6 Derivative of a Function given in the form of parametric equations**
- 2.7 Differentiation of Implicit Relations**
- 2.8 Derivatives of Trigonometric Functions**
- 2.9 Derivatives of inverse Trigonometric functions**
- 2.10 Derivative of exponential functions**
- 2.11 Derivative of the logarithmic function**
- 2.12 Logarithmic differentiation**
- 2.13 Derivative of Hyperbolic functions**
- 2.14 Derivatives of the inverse hyperbolic functions**
- 2.15 Successive Differentiation (or Higher derivatives)**
- 2.16 Series expansions of functions**
- 2.17 Taylor series expansions of functions**
- 2.18 Geometrical interpretation of a derivative**
- 2.19 Increasing and decreasing functions**
- 2.20 Relative extrema**
- 2.21 Critical values and critical points**

UNIT- III

INTEGRATION

- 3.1 Introduction**
Differentials of Variables, Distinguishing between dy and δy ,
Finding $\frac{dy}{dx}$ by using differentials, Simple application of differentials
- 3.2 Integration as anti-derivative (Inverse of derivative)**
Some Standard Formulae for Anti-Derivatives, Theorems on Anti-Derivatives, Anti-Derivatives of $[f(x)]^n f'(x)$ and $[f(x)]^{-1} f'(x)$.
- 3.3 Integration by method of substitution**

3.4 Some useful substitutions**3.5 Integration by parts****3.6 Integration involving partial fractions****3.7 The definite integrals**

The area Under the curve, Fundamental theorem and properties of Definite Integrals

3.8 Application of definite integrals**3.9 Differential equations**

Solution of a differential equation of first order, Initial conditions

UNIT- IV**INTRODUCTION TO ANALYTIC GEOMETRY****4.1 Introduction**

The Distance Formula, Point dividing the join of two points in a given ratio

4.2 Translation and rotation of axes**4.3 Equations of straight lines**

Slope or gradient of a straight line joining two points, Equation of a straight line parallel to the x-axis (or perpendicular to the y-axis), Equation of a straight line parallel to the y-axis (or perpendicular to the x-axis), Derivation of standard forms of equations of straight lines, A linear equation in two variables represents a straight line, To transform the general linear equation to standard forms, Position of a point with respect to a line

4.4 Two and three straight lines

The Point of intersection of two Straight Lines, Condition of concurrency of three Straight Lines, Equation of Lines through the Point of Intersection of Two Lines, Distance of a Point from a Line, Distance between two Parallel Lines, Area of a Triangular region whose vertices are given

4.5 Angle between two lines

Equation of a straight line in Matrix form

4.6 Homogeneous equation of the second degree in two variables

Homogeneous Equation, To find measure of the Angle between the Lines represented by $ax^2 + 2hxy + by^2 = 0$

UNIT-V**LINEAR INEQUALITIES AND LINEAR PROGRAMMING****5.1 Introduction****5.2 Linear Inequalities**

Graphing of a linear inequality in two variables

- 5.3 Region bounded by 2 or 3 simultaneous Inequalities**
- 5.4 Problem Constraints**
- 5.5 Feasible solution set**
- 5.6 Linear Programming**
- 5.7 Linear Programming Problems**

UNIT-VI

CONIC SECTION

- 6.1 Introduction**
Equation of a Circle, General form of an Equation of a Circle, Equations of Circles determined by given conditions
- 6.2 Tangents and Normals**
Length of the Tangent to a Circle (Tangential Distance)
- 6.3 Analytic proofs of important Properties of a Circle**
- 6.4 Parabola**
General form of an Equation of a Parabola, Other standard Parabolas, Graph of the Parabola
- 6.5 Ellipse and its Elements**
Standard form of an Ellipse, Graph of an Ellipse
- 6.6 Hyperbola and its Elements**
Standard equation of Hyperbola, Graph of the Hyperbola
- 6.7 Tangents and normals**
- 6.8 Translation and Rotation of Axes**
- 6.9 The General Equation of Second Degree**
Classification of conics by the discriminant

UNIT-VII

VECTORS

- 7.1 Introduction**
Geometric interpretation of Vector, Multiplication of Vector by a Scalar, Addition and Subtraction of two Vectors, Position Vector, Vectors in a plane, Properties of magnitude of a Vector, Another notation for representing vector in plane. A unit Vector in the direction of another given Vector, The ratio formula, Vector Geometry
- 7.2 Introduction of Vector in Space**
Concept of a vector in space, properties of Vectors, Another notation for representing Vectors in space, Distance between two

points in space, Direction Angles and Direction Cosines of a Vector

7.3 The Scalar product of two Vectors

Deductions of the important results, Perpendicular (Orthogonal) Vectors, Properties of dot product, Analytical expression of dot product $\underline{u} \cdot \underline{v}$, Angle between two Vectors, Projection of one Vector upon another Vector

7.4 The cross product or vector product of two vectors

Derivation of useful results of cross products, Properties of cross product, Analytical Expression of $\underline{u} \times \underline{v}$, Parallel Vectors, Area of Parallelogram, Area of Triangle

7.5 Scalar Triple product of Vectors

Analytical expression of $\underline{u} \cdot (\underline{v} \times \underline{w})$, The volume of the Parallelepiped, The volume of the Tetrahedron, Application of Vectors in Physics and engineering.

TOPIC-WISE WEIGHTAGE & TIME (XII)

UNIT	TOPIC		WEIGHTAGE	PERIODS (45 minutes each)
I	Functions & limits		6%	11
II	Differentiation of Functions	Polynomial & Algebraic	15%	07
		Trigonometry and Inverse Trigonometric		07
		Logarithmic & Exponential		07
	Successive differentiation and theorems and Maximum/Minimum		5%	07
III	Integration (Indefinite Integrals)	Standard forms	29%	07
		By partial fractions		07
		By Substitution		05
	Definite Integrals	By parts		07
		Area under the curve		07
	Differential			

		Equations		
IV	Introduction to Analytic Geometry		8%	13
V	Linear in-Equalities Linear Programming		7%	07 05
VI	Conic Sections	Circle Parabola Ellipse Hyperbola General Equation	17%	12 04 04 04 04
VII	Vectors	Introduction to vector & Scalar Product Vector product Scalar triple Product	13%	07 07 04
			100%	150 (6 periods a week)

Recommended Book: "MATHEMATICS Part-II"

Author : Prof. Muhammad Amin Chaudhary
 Prof. Muhammad Sharif Ghaury
 Prof. Muhammad Khalid Saleem
 Mr. Mazhar Hayat

Published by : **Ch. Ghulam Rasul & Sons, Lahore.**
 for: Punjab Textbook Board, Lahore

COMMERCE GROUP**PART – I**

Principles of Accounting Paper – I	---	---	---	100
Principles of Economics	---	---	---	75
Principles of Commerce	---	---	---	75
Business Mathematics	---	---	---	50

PART – II

Principles of Accounting Paper – II	---	---	---	100
Commercial Geography	---	---	---	75
Computer Studies / Banking	---	---	---	75
Statistics	---	---	---	50

PRINCIPLES OF ACCOUNTING – I**Marks: 100****PART –I(CLASS-XI)****Time: 3:00 Hours**

- 1. Introduction.**—Definition, Basic concepts, Double Entry System of Book Keeping, its objectives and advantages.
- 2. Accounting Cycle.**—Accounting equation Journal, Ledger and Trial balance.
- 3. Subsidiary Books Journals.**—Cash Book, Petty Cash Book. Purchases, Sales: purchases>Returns: Sales Returns; Bills-Receiveable and Bill payable books.
- 4. Banking Transactions.**—Kind of bank accounts and procedure of recording of banking transactions: cheques ; Cheque Register; Bank Reconciliation Statement, its objectives and preparation.
- 5. Accounting for Bills of Exchange.**—Definition and procedure.
- 6. Capital and Revenue.**—Meaning—Distinction between Capital and Revenue items: Receipts and Payments, Profits and Losses, Income and Expenses.
- 7. Rectificaion of Errors.** – Kinds of errors – correction of errors after and before closing the books of accounts, suspense account.
- 8. Financial Statement.** – Trading and profit and loss Account Income Statement and Balance Sheet-form and its preparation.
- 9. Adjustments and Closing Process.** Prepaid and Outstanding expenses Accrued and unearned income; provision for Bad and Doubtful Debt; Provisions for Discount; Depreciation interest on capital and drawing, work Sheet.

PRINCIPLES OF ACCOUNTING-II**Marks: 100****PART –II****Time: 3:00 Hours**

- 1. Accounting for Non Profit easing concerns.** – Income and Expenditure and Payments Account; Receipts and payments Accounts and Balance Sheet.
- 2. Accounting for Incomplete Records.**- Calculation of profit and loss statement of Affairs conversion of Single Entry into Double Entry account.
- 3.** Depreciation Nature, methods straight line and diminishing balance.
- 4.** Accounting for surplus, Reserves and Funds. Nature-types and creation.
- 5. Accounting for Consignments.** Fully and partly sold goods excluding invoice price method, Account Sale Statement.
- 6. Accounting for Partnership.** Definition – partnership, agreement, division of profit and loss-valuation and treatment of goodwill admission, retirement and death of partner – Dissolution.
- 7. Accounting for Joint Stock Companies.** Formation-Kinds of companies company documents-types of shares-issue of shares at per, at premium at discount over- subscription, for feature and re-issue of share, Issue of debentures Bond at per, at premium and at discount-redemption of debentures.

List of equipment, Lab-requirements.

Book keeping machines, Overhead Projectors, Slide Projector,
Scientific electric calculators, Amount perforator on Cheque, Bank Draft,
Business film through T.V.

Available Books.

Principles of Accounting by M.A. Ghani.
Principles of Accounting by Aftab A. Khan.
Book keeping and Accounting by S.A. Siddiqui.
Principles of Accounting by Gul Zaman Qazi.
Asool-e-Mahasbi by Mobeen A. Khan.
Intermediate Accounting by Rauf Baig.
Introduction to Accounting by Nisaruddin.

PRINCIPLES OF ECONOMICS

Total Marks: 75

Time : 2:30 Hours

Division of Marks: Micro – 40 Marks:

Macro – 35 Marks:

Micro Economics:I

What is Economics about ?

- i. The nature, scope and methods of economics analysis.
- ii. Importance of economics.

II. Demand and supply

Individual demand, aggregate or market demand, law of demand, changes in demand, elasticity of demand, measurement of elasticity of demand.

What is supply, law of supply, and stock, elasticity of supply.

Equilibrium between demand and supply.

III. Consumer, Demand Theory

Law of diminishing and marginal utility. Consumer's equilibrium (cardinal approach).

IV. The Costs and Revenues of a Firm.

Classification of costs, fixed cost, variable cost, total average cost, marginal cost, opportunity cost, total revenue, marginal and average revenue.

V. Laws of Returns

The law of diminishing returns.

The law of increasing returns.

The law of constant returns.

The law of costs.

VI. Price and output Determination

Pure competition, concept and occurrences, price and output determination under perfect competition and monopoly.

VII. Resource Pricing.

Marginal productivity theory of resource demand.

Factors of production (brief introduction).

MACRO ECONOMICS II

I. National Income

Measurement of National Income:

National Income at factor earning.

National Income at market price.

Expenditure approach to income measurement.
The flow of National Income, other social accounts.
GDP = Gross Domestic Product
GNP = Gross National Product.
NNP = Net National Product.
NI = National Income.
PI = Personal Income.
DPI = Disposable Personal Income.

II. Money

What is money ?
Functions of Money.
Quantity theory of money.
Inflation, Deflation and their effects.

III. Business Cycle

Phase of Business cycle.
Theories of business cycle.

IV. International Trade

Importance of World Trade, International Specialization comparative advantage, balance of trade and balance of payment.

V. Public Finance

Meaning of public finance, cannons of taxation, Zakat and Usher.

List of Recommended Books, References, Reading etc.

Introduction to Modern Economics Part I and II
by Dr. S.M. Akhtar
Economics and Commercial Geography
By Gul Zaman Qazi.
Usool-e-Muashiat by Awais Ahmad Adib
Ibtedai Muashiat by Abdul Hameed Dar.
Economics by Khadim Hussain
Principles of Economics by Prof. Sirajuddin Qureshi.
Usool-e-Muashiat by Manzoor Ali.

PRINCIPLES OF COMMERCE*(CONTENT OUTLINES)***Marks: 75 Class XI (Part-I) Time: 2:30 Hours****I. Introduction**

Definition of Commerce, its importance and scope. Branches of Commerce, Trade, Insurance, Finance, Marketing, Warehousing and Industry. Essentials of establishing a business house and qualities of a good Business-man.

II. Types of Commercial Organizations

Sole Proprietorship. Definition, Features, merits and demerits.

Partnership. Formation Features, Partnership Agreement / Deed Advantages, Disadvantages and Dissolution.

Joint Stock Company / Corporation. Special Feature, Kinds, Formation: Memorandum of Association, Articles of Association, Certificate of Registration, Prospectus, Certificate of Commencement of Business, Management: Shareholders, Directors and Managing Director, Winding up.

Cooperative Society: Features, Kinds, advantages and disadvantages: Basic concepts of Musharqa, Mudarba.

III. Office Organization

- a. Office Roles, its organization.
- b. Handling incoming and outgoing mail, basic postal information.
- c. Filing, duplicating, copying and indexing.
- d. Office equipments and machines.

IV. Trade and its Kinds:-

Home Trade. Whole sale, Retails, Middlemen, Salesmanship and Advertisement. Channel of distribution and Chamber of Commerce.

Purchase and Sales of Goods. – Procedure, documents used in home trade price list, Invoice, transportation and Railway receipts.

Foreign Trade Import. – Import procedure, Documents used.

Export

Export procedure, documents used and role of export promotion Bureau.

V. Commercial Correspondence

- i. Essentials of a good business letters, writing of letters and their replies.
- ii. Types of letters, trade and status enquiries, indents, letters of claim, collection and donning letters.

- iii. Circulars-officials and semi-officials, telegram including modification, cyphering and decyphering.

VI. Auxillaries to Commerce

- a. Insurance – Kinds, Advantages to Commerce.
- b. Transportation/Means-Air, Rail, Road and Sea.
- c. Warehousing-Kinds and advantages, Warehouse receipts.
- d. Business Finance – types and importance

Available Books

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Principles of Commerce
S.Askari Zardi.
A.H. Hashmi and Matin. 3. Principles of Commerce
Ali Hassan Muzafar,
Ilme Kutabkhana, Lahore. 5. Principles of Commerce
Orient Publishers Urdu
Bazar Lahore | <ol style="list-style-type: none"> 2. Principles of Commerce
Khadim Hussain,
Navid publishers, Lahore 4. Principles of Commerce
Azeem Academy Urdu
Bazar Lahore |
|---|---|

BUSINESS MATHEMATICS

Marks: 50 PART –I-- MATHEMATICS Time: 2:00 Hours

1. Business Arithmetic
Ratios Proportion and percentage.
Computation of annuities.
2. Functions and their Graphs.
3. Linear and quadratic Equations, Simultaneous Equations.
4. Binary Number System and its operation.
5. Matrices-Identity, Matrices, Addition, Subtracion multiplicative of matrices. Solution of Simultaneous equations through matrices.

Marks: 50 PART –II-- STATISTICS Time: 2:00 Hours

1. **Nature of Statistics**
What is statistics, Subject matter, fields of statistics and the types of questions it can answer. Importance of statistics in different fields.
2. **Statistical Data**
Types of data – Primary and secondary.
Sources of data and Methods of Collection.
3. **Presentation of Data**

Classification – the bases of classification.
 Tabulation-Simple and compound Tables.
 Representation of data through diagrams and charts. Bar diagrams,
 Circular diagrams. Graphs of Frequency Distribution.

4. Averages of the First Order

Mean, Mode, Median

5. Index Numbers

6. Probability Theory

An elementary treatment, excluding probability distributions (Brief Introduction)

BOOKS AVAILABLE

1. Rahber Business Statistics by Aizaz Ahmad Khan
Qureshi Brothers
2. Business Statistics by Nadeem Akhtar Siddiqui
Azeem Academy Urdu Bazar Lahore
3. Business Statistics by Aqdas Abbas
Iqra Book Depot Urdu Bazar Lahore
4. Business Mathematics by Nadeem Akhtar Siddiqui
Azeem Academy Urdu Bazar Lahore

COMMERCIAL GEOGRAPHY

Marks: 75

Class XII (Part-II)

Time: 2:30 Hours

L World

[Marks – 45 for Part I&II]

-Part-I- Definition of world Commercial activities and their response to different environments.

-Primary/ Primitive activities.

-Fishing.

-Hunting.

-Lumbering

-Agricultural Activities.

-Advent of agricultural activities.

-Animal Husbandary / Herding.

-Farming-Subsistence.

Industries and Handicrafts.

Skills and factors of manufacturing.

Types and products.

Iron & Steel, Textiles, Fertilizers.

Population growth-its global distribution, trends and its effects on various commercial activities.

Growth-world-wide.

Distribution.

Trends and effects on Commerce.

Orientation of Commercial activities and their modern trends.

Choices of different countries.

Inter-relationship of choices and commercial activities.

Impact of the latest technology on existing commercial activities and the resultant trends.

-Part-II-World resources and their distributions

a. **Agricultural resources with special emphasis on food resources and rate of consumption.**

-Wheat, Rice, Sugar – Cane, Tea, edible oils

-Cotton, Rubber and Wool.

-Commodity Flow and consumption.

b. **Mineral resources and their reserve estimates.**

-Iron-Ore.

-Gold

-Uranium.

c. **Energy resources and their application.**

-Coal

-Electricity Thermal / Hydro-electricity / Nuclear.

-Natural Oil and Gas.

d. **Human resources and their utilization.**

-Types according to various occupations.

-Utilization – Optimum and under utilization.

-Effects on Socio – Economic conditions.

Pakistan.

30 Marks

a. **Location and physical environments.**

- Geographical location and physical features.

-Climate and Natural vegetation.

-Soils and Irrigation.

b. **Resources and their exploitation.**

-Agricultural commodities – Wheat, Rice, Maize, Sugar-cane, Cotton, Tobacco.

-Power – Electricity, Nuclear, Solar Energy & Bio-gas.

- c. **Population, its involvement and options for various commercial activities and its impact on national, regional and international trade.**
 -Distribution and Occupation.
 Migration-immigration and emigration.
 -Influence upon nations, regional and international trade.
- d. **Logistics for the transfer of various resources.**
 -Roads.
 -Railway.
 -Airways and Water ways.
- e. **Priorities and identity of the commercial needs of Pakistan.**
 -Food autakry.
 -Technology know-how and its application in various fields of commercial activities.
 -Perspective needs and their fulfilment, by adding facilities like augmenting the existing irrigation system, power resources etc.

RECOMMENDATIONS

LIST OF EQUIPMENT, LAB, REQUIREMENTS ETC.

-Maps and Map-rooms, A.V. Aids, Charts. Graphs, Globes, Atlases and out door study tours.

At present no single book is likely to cover the recommended course. It is, therefore, suggested that a few books on commercial Geography be got prepared and published for the convenience of the students. Meanwhile the following books may be useful as a stop gap arrangements.

Available Books:

- Pakistan by Col. K.U. Qureshy
- Economic and Commercial Geography by Gul Zaman Qazi.
- Commercial Geography by Mian Muhammad Anwar.
- Regional and Commercial Geography by Col K.U.Qureshy and Dr. Miss. M.K. Elahi.
- Economic and Commercial Geography by Prof. Nazeer Ahmad Khalid
- Azeem Academy Urdu Bazar Lahore
- Economic Geography by F.K.Khan.
- Pakistan Atlas Oxford.
- Economic and Commercial Geography by Gul Zaman Qazi

COMPUTER STUDIES/ COMPUTER SCIENCE**Part-II (Class-XII)**

Theory Marks: 50

Practical Marks: 25

Marks: 50**Time: 2:00 Hours****-Definition of Computer and usefulness in Commerce****-Types of Computers.**

- i. Differentiation among Digital, Analog and Hybrid computers.
- ii. Classification of digital computers; Micro Computers, Mini Computers, Mainframe.

-Elements of Data Processing.

Familiarization with terminology and brief descriptions of various fields, within computer science i.e. Hardware, software (System Software and Application Software) System analysis Programming etc.

II. Components of Digital Computer Systems and Their Functions.**Central Processing Unit.**

- i. Control Unit.
- ii. Arithmetic and Logic Unit.
- iii. Main Memory

i. Input / Output Devices

Functioning, advantages and disadvantages of various input / output Devices i.e. Terminals Printers, Card Readers, Diskette Readers etc.

ii. Secondary Storage Devices.

Disk Drives fixed (Winchester), removable, Floppy, Magnetic Tape drive etc, Usage and suitability of various secondary storage devices according to their speed and volume should be explained.

III. Information Representation in Computers**-Number System.**

- i. Decimal, Binary, Octal and Hexadimal.
- ii. Arithmetic operations i.e. Addition, subtraction, Multiplication and Division etc.

-Machine Representation.

- i. Representation of positive and Negative integers using two's complement.

- ii. Bits, Bytes, Words, representation of Characters, representation of Instructions.

IV. Elements of Data Processing

-Problems Solving and various stages involved.

- (i) Defining the Problem.
- (ii) Analyzing of the problem.
- (iii) Algorithm.
- (iv) Flow-charting.
- (v) Coding (Programming) the Problem.
- (iv) Processing the Problem.
- (vii) Debugging the Problem.
- (viii) Final Output (Showing results of Problems

V. Programming Languages

- Classification of languages (Low Level, Intermediate level and high level).
- Low level language (Machine Language).
- Intermediate level language (Assembly Language)
- High Level languages (Fortran, Cobol, passcal and Basic etc).
- Suitability of a programming language according to the nature of problem

VI. Elements and Programing in Basic Language

- Assignment Statements —Control statements
- Input/Out-put statements —Specification statements.
- Usage of Basic statements in developing programmes for simple problems.

VII. Major Applications

-For Research Development in:

Commercial, accounting, banking, insurance, shipping, census, immigration, taxation, communications, examinations, inventory (stores) personal information system.

Available Book:

Computer Studies / Computer Science
by Kashif Shahzad Ch. & Rabia Shahzad Ch.
Azeem Academy Urdu Bazar Lahore

BANKING

Marks : 75

Class XII(Part-II)

Time : 2-30 Hours

Course Outlines

-Definition and origin of banking.

-Kinds of Banks

- (i) Central Bank.
- (ii) Commercial Bank.
- (iii) Industrial Bank—IDBP, NDFC.
- (iv) Agricultural Bank.
- (v) Investment Bank—ICP.
- (vi) Saving Bank.
- (vii) Cooperative Bank.

-Commercial Banks

- (i) Scheduled and non-scheduled Banks.
- (ii) Functions, Importance and services performed by a modern commercial bank.

-Kinds of Bank Account

- (i) Saving.
- (ii) Current
- (iii) Fixed.
- (iv) PLS.
- (v) Operation of above accounts (Practical Demonstrations).

Credit Instruments

- (i) Cheques.
- (ii) Bill of Exchange.
- (iii) Promissory note.
- (iv) Letter of credit.

Bank advances

- (i) Over draft.
- (ii) Cash credit.
- (iii) Loans — Secured and unsecured.
Credit creation by Commercial Banks.—their powers and limitations.

Central Bank

- (i) Origin and growth.
- (ii) Functions of a central bank.
- (iii) Credit control measures.

- (iv) State Bank of Pakistan—its relation with scheduled banks and its role in the national economy.

Foreign Exchange

Meaning—exchange rates, exchange control and trade, foreign remittances.

Note,—These course outlines may be adopted for similar course of Banking in D Com. scheme of Studies.

Evaluation

Internal

- (a) For internal evaluation, monthly tests be conducted to assess the knowledge of the students regularly.
- (b) Quiz programmes be arranged to encourage competitive spirit among the students.

External.

Ten questions may be set and the students be asked to attempt any five questions carrying equal marks.

- (a) Guest speakers from different banks may be invited to deliver lectures.
- (b) Students visit in batches to various banks branches be arranged.

Available Textbooks

- (i) Principles of Banking by Mohammad Hanif.
- (ii) Principles of Banking by Qazi Shahzad
Azeem Academy Urdu Bazar Lahore
- (iii) Law and practice of Banking in Pakistan by Asrar H. Siddiqi.
- (iv) Money Banking and Credit by Saeed Nasir.
- (v) Banking by S. Qavi Ahmad
- (vi) Banking in Pakistan by S.A.Meenai
(Economic News letters, of banks.)
(Journal of Institute of Bankers in Pakistan.)

HOME ECONOMICS GROUP

(There will be two papers of 100 marks each.)

PART-I (CLASS-XI)

	Marks
1. PAPER I.	100
Biology and Chemistry	
Part A : Biology	
Marks : 35 Practical : 15	
Part B : Chemistry	
Marks : 35 Practical : 15	
2. PAPER II.	100
Home Management	
Marks : 85 Practical : 15	
3. PAPER III.	100
Clothing & Textiles	
Marks : 85 Practical : 15	

PART-II (CLASS-XII)

4. PAPER IV	100
Applied Art	
Marks : 85 Practical : 15	
5. PAPER V	100
Food and Nutrition	
Marks : 85 Practical : 15	
6. PAPER VI	100
Child Development and Family life.	
Marks : 85 Practical : 15	
Total:600	<hr/>

Syllabus.PART-I(CLASS-XI)**Section A-Biology****Marks: 35****1.Zoology.**

- i. Study of the basic animal science
 - a. Cytology, i.e. protoplasm, cell structure, divisions and Fertilization.
 - b. Histology of the simple and compound tissues in general.
- ii. Brief classification of the animal kingdom.
- iii. Study of the characteristics of parasites and their effects on human beings.

2.Physiology of the human body.

- i. Muscular system, movements and levers.
- ii. Skeletal system and joints.

- iii. A general study of the structure and function of the digestive, respiratory, circulatory, nervous, excretory and reproductive systems of the body.
- iv. Structure and function of the eye, ear, nose, skin and tongue.

3.Botany.

- i. Classification of plants.
- ii. Parts of plants and their functions
 - a. Root-absorption of water and nutrient salts from the soil, holding the plant in position, storage of food.
 - b. Stem-carrying water and food-storage of food.
 - c. Leaves- manufacture of food and loss of water.
 - d. Flowers-formation of fruits and seeds.
- iii. Special uses of plants and trees to man. Their fundamental values as food including vitamins and uses for latex and rubber, tobacco, perfumes, spices and condiments, tea, coffee and cocoa, medicines—drug-ex—castor oil iodine from sea weed, building materials, fuel and timber.
- iv. Conservation-importance in the prevention of erosion.

Section B - Chemistry

Marks: 35

1.Physical Chemistry.

- i. Physical and chemical changes.
- ii. Elements, mixtures and compounds.
- iii. Chemical symbols, formulas and chemical equations.
- iv. Dalton's atomic theory ; laws of chemical combination.
- v. Elementary idea of electron, proton and neutron and electronics structure of atom.
- vi. Definition of atomic weight, molecular weight and equivalent weight.
- vii. Elements of thermo-chemistry and thermo-chemical equations.
- viii. Calculations based on chemical equations.
- ix. Oxidation; reduction.
- x. Elementary study of reversible reactions and chemical equilibrium; elementary ideas of Law of Mass action.
- xi. Electrolysis and ionisation.
- xii. Catalysis and colloids.

2.Inorganic Chemistry.

- i. Water as a solvent; change in its density with temperature; its high specific heat, high heat of vaporization-relation of each of these to health; softening of hard water; purification of water for drinking purposes and for laundry.

- ii. Preparation, properties and uses of hydrogen peroxide and ozone.
- iii. Air and its composition; respiration and combustion; flame.
- iv. Natural gas, coke and other fuels; carbon monoxide poisoning.
- v. Carbon dioxide; preparation, properties and uses (fire extinguishers).
- vi. Acids, bases and salts, general characteristics of each class.
- vii. Action of air, water, acids and alkalies on the following metals and alloys: Silver, gold, copper, brass, bronze, tin, aluminium, iron, chromium and nickel.
- viii. Composition and properties of common salt sodium thiosulphate, baking powder, bleaching powder lime, copper sulphate, white lead, silver-nitrate, common alum, potassium permanganate.
- ix. Elementary study of the following processes:-
Photography; electroplating; silvering of mirrors and tinning.

3.Organic Chemistry

Elementary study of the following:-

- i. Hydrocarbons (methane, ethane and acetylene).
- ii. Ethyl alcohol.
- iii. Acids: Organic acids in common domestic use – acetic, oxalic, tartaric and citric acids.
- iv. Carbohydrates – glucose, cane sugar, starch, study of cellulose with special reference to its industrial importance in rayon, paper, cellophane and synthetic materials.
- v. Fats and oils – soap and saponification.
- vi. Proteins.
- vii. Dyeing acid – fats and alkali- fast dyes, mordant; bleaching and use of anti-colour.
- viii. Fermentation of food by different methods and pasteurization of milk.

LIST OF PRACTICAL FOR PAPER-I “BIOLOGY & CHEMISTRY”

Practical Paper-I Part-I with the help of models students will be instructed in the identification of :-

Section-A

- i. Different types of Plants.
- ii. Different Parts of Plants.
- iii. Parts of skeletal system.
- iv. Parts of Eyes & Ears.

Section –B

- i. Demonstrations the difference in a physical and chemical change.
- ii. Demonstrations the effect of heat on water change in state and temperature.
- iii. Characteristics of acids, bases and salts.
- iv. General Characteristics of carbohydrates, fats and Proteins-colour reactions-solubility, effect of heat.

**PAPER II (PART-I)
HOME MANAGEMENT**

(Outlines of tests)

Part-I Theory (Class-XI) Marks: 85

Practical: 15

Marks: 85

Time: 3:00 Hours

Syllabus.

- 1. Management and its relationship to family goals, values and resources.**
 - (i) Family goals and values as related to management.
 - (ii) Developing and understanding of resources to be managed:—
 - (a) Types of resources —human and material.
 - (b) Inter-relationship of resources.
 - (c) Control, evaluation and planning of resources.
 - (d) Scarcity of resources for management.
- 2. Comfort and beauty in the home.**
 - (i) Planning houses to meet family needs.
 - (ii) Selection and functional arrangement of furniture and furnishings
 - (iii) Improvement of household storage.
 - (iv) Study of heights of working surfaces.
- 3. Protection of health in the home.**
 - (i) Sanitation in the home.
 - (ii) Constructional features of housing in relation to the health of the family:—
 - (a) Ventilation.
 - (b) Lighting.
 - (c) Drainage.
 - (d) Disposal of refuse
 - (e) Insulation.
 - (iii) Arrangement for areas of recreation in the home.

4. Household equipment.

- (i) Household equipment used in Pakistani homes.
- (ii) Amount and kind of equipment needed for maintenance of a home.
- (iii) Selection of household equipment in relation to the design and function of equipment
- (iv) Care and storage of equipment.

LIST OF PRACTICAL FOR CLASS –XI (PART-I)

- (i) Plan time-table for different family members.
- (ii) Compare simple account books, report on money expenditure in a family and keep a record of personal accounts.
- (iii) Plan household storage in own homes.
- (iv) Experiment with adjustable work heights.
- (v) Make a study of the health and sanitary members in the community.
- (vi) Evaluate and suggest improvement for the equipment commonly and in Pakistan homes in relation to design, function, use, efficiency and care.

Note:—Field trips will be arranged for the students in connection with their Practicals.

**PAPER III (PART I)
(CLOTHING AND TEXTILES)**

(Outlines of tests)

Part-I Theory (Class-XI) Marks: 85

Practical: 15

Marks: 85

PART –I(CLASS-XI)

Time: 3:00 Hours

Syllabus.

1. Selection, construction and storage of clothes.**(i) Principle of art applied to selection of clothes and fabric:—**

- (a) Analysis of personal characteristics.
- (b) Study of design elements in dress.
- (c) Selection of appropriate dress and accessories.

(ii) Shopping practices and consumer ethics:—

- (a) Study of marks and prices.
- (b) Effective shopping practices
- (c) Ethical and unethical practices in shopping.

(iii) Principles of wardrobe planning:—

- (a) Planning individual wardrobe in terms of family, social economic status and the economy of Pakistan.
- (b) Factors that determine wardrobe planning such as family budget, activities, personality, season of the year, age, set and occasion in terms of social customs of the country.

(iv) Construction of clothes :—

- (a) Drafting individual bodies block—taking accurate measurements and considering correct drafting procedures.
- (b) Construction of a minimum of two garments for the students herself based on her wardrobe analysis and incorporating at least five new techniques and learning.
- (c) Sewing equipment, its proper use and care; choice of fabrics for garments: construction processes.

(v) Methods for care and storage of clothing.

- (a) Values and basic principle of laundering, stain removal ironing and pressing.
- (b) Principle of storing clothes, such as cleanliness, neatness, orderliness and protection from wrinkling, dust, dampness, insects.
- (c) Mending methods in the context of appropriateness to the fabric, in relation to time, energy and worth of the garments repairing, patching and darning.

2. Study of Textile Fibres.

- (i) Classification of textile fibres.
A comparative study of the characteristics of textile fibres, identification of textile fibres of common use; microscopic Structure; simple methods of fibre identification such as the burning test and the feelings test, simple chemical tests for identifying fibres.
- (ii) The three basic weaves and their characteristics:
Plan, twill and satin weave.
- (iii) Finishing processes such as mercerization, napping calendering, pre-shrinking.

LIST OF PRACTICAL FOR CLASS-XI (PART-I)

- (i) Drafting individual bodies block.
- (ii) Construction of a minimum of two garments based on own wardrobe analysis and incorporating at least five new techniques and learnings
- (iii) Principles of Stain removal

- (iv) Ironing and pressing cloths.
- (v) Common mending methods; patching; darning.
- (vi) Examination and collection of a variety of Fabrics made from different textile fibres.
- (vii) Identification of fibres using simple methods.
- (viii) Natural, man made, synthetic burning test, physical test, chemical and microscopic.

PAPER IV (PART-II)

(APPLIED ART)

(Outlines of tests)

Part-II Theory (Class-XII) Marks: 85

Practical: 15

Marks: 85

PART –II(CLASS-XII)

Time: 3:00 Hours

Syllabus.

1. Application of Art in everyday living.

- (i) Application of design through planning, designing and construction of any five of the following crafts:
 - (a) Tied and dyed and stencilled dupattas or scarves, batik- curtain, kamiz, sari.
 - (b) Leather work, pocket-books, sandals. Basketery — two types of basket.
 - (c) Straw-weaving mats for table, block printing, meaving, crubing of carvings and engraving.
 - (d) Composition using natural material e.g. flowers, grasses branches, fruit.
 - (e) Selection and arrangement of pictures and wall hangings.
 - (f) Construction of frames.
- (ii) Principles of art applied to all planning and construction; harmony, rhythm, balance, proportion, emphasis.
- (iii) Elements of art applied to all creative work:—
Colour, texture, line form.

- (iv) Demonstration of arrangement of space, line and colour on posters illustrative material for other classes, bulletin boards, decoration for parties.

2. PRACTICALS

Students will submit five creative projects for evaluation with an analysis of how the principles of art and the elements of art are used. At least one project should illustrate the use of colour and colour harmony.

PAPER V (PART-II) (FOOD AND NUTRITION)

(Outlines of tests)

Part-II Theory (Class-XII) Marks: 85

Practical: 15

Marks: 85

PART –II (CLASS-XII)

Time: 3:00 Hours

Syllabus:

1. Understanding the nutritional importance of food.

- (i) Definition of nutrition.
- (ii) Classification and functions of food nutrients: Carbohydrates, fats, proteins, minerals, vitamins and water.
- (iii) Composition and nutritional value of vegetables, fruits, eggs, milk, meat and other common foods.
- (iv) Conservation of nutrients in food preparation-

2. Family meal management.

- (i) **Points to be considered in meal management:—**
 - (a) Personal nutritional needs.
 - (b) Factors governing nutritional requirements in respect of age sex, activity.
 - (c) Adequate diet for the family; infant nutrition, invalid diets and others.
 - (d) Adapting receipts to number of persons to be served.
- (ii) **Food preparation:—**
 - (a) Use of weights, measures and equivalents.
 - (b) Methods and principles of cookery: Meat, vegetables, fruit and sugar.

(c) Effects of cooking on nutrients palatability, texture, colour.

(iii) **Study, care and use of equipment used in food preparation.**

3. Food Fads and fallacies.

Relation of food and fallacies to personal food selection such as superstition, religion, special days.

4. Home Gardening and food production.

(i) Value of planning for producing food at home—nutritional, recreational and educational.

(ii) Soil preparation and management of the garden.

(iii) Selecting vegetables, fruits and flowers suited to the area selected for gardening.

(iv) Protecting vegetables, fruits and flowers from pests, heat, excessive rain.

(v) Care and use of fresh, home produced food.

(vi) Poultry and other sources of protein-rich food for the family.

LIST OF PRACTICALS FOR CLASS-XII (PART-II)

(i) Record food intake and activity for a given period of time (two days or more) and evaluate dietary in relation to energy requirement.

(ii) Learn to measure 100 calorie portions of food. Compare the dietary adequacy of rice, eggs, dal, atta, fruits, vegetables. Compare nutritional value of polished and unpolished rice, maida and atta.

(iii) Estimate number of servings from a prepared receipt (keep in mind the amount of adequate servings).

(iv) Plan a menu which will furnish the daily food requirements for a family.

Prepare one meal from this menu.

***Prescribed textbook-* “FOOD AND NUTRITION”**

Author : Mrs. D. N. Dastur.

Editor : Miss Razia Noor Muhammad.

Published by : M/s Ilmi Kitab Khan, Urdu Bazar, Lahore
For Punjab Textbook Board, Lahore.

PAPER VI (PART II)
(CHILD DEVELOPMENT AND FAMILY LIFE)

(Outlines of tests)

Part-II Theory (Class-XII) Marks: 85

Practical: 15

Marks: 85

CLASS-XII (PART –II)

Time: 3:00 Hours

Syllabus.

1. Understanding helping family members

(i) Care of the mother during pregnancy:

- (a) Care of the mother during pregnancy to ensure a good start in life for the baby.
- (b) Helping the mother to understand her needs and giving her information about agencies and persons able to help her.

(ii) Preparation for the arrival of a new baby.

- (a) Preparing parents and other family members for welcoming the new baby.
- (b) Helping parents to understand the characteristics and needs of the infant.

(iii) Understanding the growing child.

- (a) Characteristics of the pre-school child, school child and pre-adolescent.
- (b) Aspects of growth and development, physical, emotional, social and mental. Inter-relationship of all aspects of growth.

(iv) Care of children from infancy through pre-adolescence

- (v) Explanation of the importance of observation of children of home and directed observation of children in the nursery, primary and middle schools. Discussion of guidance principles related to observation.**

2. Care of the health of the family.

(i) Requirement of good health.

Adequate food, sleep, fresh air, sun shine, comfortable clothing, exercise, safety from home hazards: fire, poisons, sharp instrument and other.

(ii) Development of individuality.

- a) Relationship of the child to family members, teachers, class-mates and others.
- b) Child's needs for developing his potentialities at home and outside the home.

- c) Behaviour problems and how to deal with them.
 - d) Characteristics behaviour accompanying growth changes; guiding children towards desirable behaviour,
- (iii) Acceptance of the whole child co-operation between family members and others understanding the child and guiding him towards maturity.
 - (iv) The role of play in the child's development. Principles underlying the selection, care and use of equipment and play material. Understanding child's interest and activities—book's pictures, music, individual and group play, importance of the peer group.

LIST OF PRACTICALS FOR CLASS-XII (PART-II)

- (i) Preparation of a file on observations in the college nursery school (or of a child at home or in the neighborhood), primary and middle school.
- (ii) Field trips,
- (iii) Audio-visual aids to be developed during the year. Guide sheets will be furnished for these reports for the file. This file will also include a chart showing play materials for each developmental level from infancy through pre-adolescence.

***Prescribed textbook:* "CHILD DEVELOPMENT"**

Author	Dr. Mrs. M. Ahmad.
Editor	Miss Razia Noor Muhammad.
Published by	M/S. Ilmi Kitab Khana, Urdu Bazar, Lahore. For Punjab Textbook Board, Lahore.

NURSING

(There will be two papers of 100 marks each.)

(*Outlines of tests*)

Syllabus.

Marks : 85

PART I

Time : 3.00 hours

- | | | |
|-----|---------------------------------|----------|
| i) | Anatomy, Physiology and Hygiene | 35 marks |
| ii) | Nursing and First Aid | 50 marks |

ANATOMY AND PHYSIOLOGY

1. Introduction to the Body.

Cells and tissues: structure and function.

Body as a whole; chief cavities and contents

2. Skeleton.

Bones: Structure and growth, types of bones.

Skull: Name and position of bones of cranium and face.

Teeth. Spinal column and Thorax: Spinal column as a whole, general structure of vertebrate and their types.

Sternum and ribs.

Shoulder girdle and upper extremity.

Pelvic girdle and lower extremity.

2. Joint and Muscles:

Joints: (general structure varieties, chief joints of the body.

Muscles: general features of voluntary muscle. Position and action of the chief muscles of the body.

3. Blood and Circulatory System

Blood: Composition, function and coagulation.

Heart: Position structure and function.

Blood Vessels: Arteries, veins, arterioles and capillaries including their structural differences. Names and positions of the chief blood vessels.

Circulation of Blood: General, pulmonary and portal circulations. Pulse and blood pressure.

Lymphatic System : Lymph, lymphatic vessels and glands. Spleen

5. Respiratory System:

Organ of Respiration: Position, structure and functions.

Mechanism and process of respiration; Chief muscles of respiration.

Purpose of respiration.

HYGIENE

1. Personal, family and community health.

- (1) **Concept of health.**
 - (a) Definition and general principles.
 - (b) Physical, mental and social factors influencing health.
 - (c) Effects of environmental and economic factors.
 - (d) Human behavior and motivation.
- (2) **Personal health;**
 - (a) **Personal hygiene.**

Habits, posture, exercise, sleep, rest, and recreation.
Cleanliness of the whole body .
 - (b) **Mental and social health**

Normal recreation, emotional adjustments, effects of social and physical environments, behavior and attitudes (including attitudes towards birth, life and death).

2. Domestic and Community Hygiene:

- (1) **Milk;** Composition, Contamination and adulteration, pasteurization and sterilization.
- (2) **Food:** storage and preservation.
- (3) **Home Safety.**
- (4) **Air and ventilation:** Composition and impurities of air, principles of natural and artificial ventilation, application to the home and institutions.
- (5) **Water;** Sources of water supply in Pakistan, purification and storage of water for domestic purposes,
- (6) **Disposal of refuse and sewage:** Water carriage and conservancy systems, purification of sewage by septic tank and activated sludge process.
- (7) **Microbiology:**
 - (a) **Type of micro:** Organisms, main characteristics and mode of life.
 - (b) **Infection:** Portals of entry, spread of infection and its control,
 - (c) **Immunity:** Active and passive.
- (8) Spread of infection by means of water, food and air in cholera dysentery and the enteric fevers.
- (9) **Spread of infection by insects:** Flies; mosquitoes, sandflies, lice, bedbugs and fleas.
- (10) **Intestinal parasites;** Threadworms, roundworms, hookworms and tapeworms.

(11) Pest control.**NURSING****I. HISTORY OF NURSING****I. Islamic Heritage in Nursing and Medicine.**

- (1) Nursing and Hygiene in the Prophet's time.
- (2) Outline of the growth of Arabic medicine from the 5th century.
- (3) Work of famous Islamic Physicians and surgeons Al-Razi, Ibn-Sina, Ibn-Zuhr, Al-Zahrawi.
- (4) Famous Muslim hospitals during the 8th -13th centuries in Baghdad, Cairo, Damascus and Cordova.

II. Florence Nightingale: Her life and work in the Crimea, founding of modern nursing.**1. Brief history of nursing in Pakistan to the present day.**

Pakistan Nursing Council, West Pakistan Nursing Services Council, Pakistan Nurses Federation and International Council of Nurses

2. Future of nursing; careers open to nurses.
3. **Work of other health services to-day:** Red Cross.

II. NURSING ETHICS AND ETIQUETTE.

1. The need for a special code of behavior for nurse.
2. The qualities of a good nurse.
3. The nurses relationship to:
 - (a) The patient and his relations.
 - (b) Nursing Staff.
 - (c) Medical Staff.
4. The international code of nursing ethics.

III. DOMESTIC WARD MANAGEMENT

1. Methods of cleaning.
 2. Care of the sickroom and its furniture.
 3. Care of bedding, linen, blankets, waterproof, plastic goods, glass-ware, rubber goods and china goods.
 4. Care and sanitary methods of cleaning utensils, baths and lavatories.
 5. Disposal and disinfection of soiled linen and dressings.
 6. Disinfectants in common use.
- Sterilization of utensils, rubber and plastic goods

IV. NURSING CARE OF THE PATIENT

(Theory and Practical)

1. Bed making, admission bed, changing sheets from side to side with the patient in bed, operation bed, Fracture bed and use of Bed Cradles.
2. Lifting and turning of patient.
3. Bathing in bed and the bathroom.
4. Care of pressure areas, causes, prevention and treatment of bedsores.
5. Care of the mouth and teeth including those of a helpless patient.
6. Care of the hair washing, fine combing, treatment for pediculosis
7. Taking and recording temperature, pulse and respiration.
8. Serving meals and feeding a helpless patient.
9. **Drugs and lotions:** Simple weights and measures, technical terms and abbreviation in common use. Administration of drugs orally. Cure of simple and dangerous drugs.
10. **Inhalations:** Preparation of moist inhalations.
11. **Enemas;**
 - (a) Those to be returned eg. Soap, olive oil and glycerine enemas.
 - (b) Those to be retained eg. Continuous rectal infusion.
12. **Hot applications:**
 - (a) Filling hot water bottles.
 - (b) Fomentations (1) Medical including Turpentine stupes.
(2) surgical.
13. **Cold applications;**
 - (a) Filling ice bags.
 - (b) Cold compresses.
14. Tepid sponging.
15. Testing of urine for albumin and sugar Reaction and specific gravity.

V. BANDAGING

1. Types of bandages and their uses, Application of roller and triangular bandages. Use of simple splints,
2. **Roller bandaging:** Simple and reverse spiral and figure of eight, spica of elbow, knee and heel, bandage of the hand, fingers and thumb, ascending shoulder spica, bandage of the ear, eye and carbuncle.
3. **Triangular bandaging:** Slings.

VI. FIRST AID

1. General principles of first aid.

2. Shock.
3. Haemorrhage including epistaxis, Haemoptysis and Haematemesis.
4. Fractures, sprains and dislocations,
5. Wounds, abrasions and bruises
6. Bites and stings.
7. Burns and scalds.
8. Loss of consciousness; fainting, fits, and convulsions, asphyxia from drowning, choking and carbon monoxide gas Electrocutation.
9. **Poisons:** General principles of treatment, Foreign bodies, Ear, Nose, throat and stomach.
10. **Artificial respiration:**
 - (a) Holger Nielson,
 - (b) Mouth to mouth

LIST OF PRACTICALS FOR CLASS-XI (PART – I)
NURSING CARE OF THE PATIENT

1. Bed making, admission bed.
2. Lifting and turning patients.
3. Care of the hair, hair washing, fine-combing, treatment for pediculosis.
4. Bathing in bed and the bathroom.
5. Taking and recording temperature, pulse and respiration.
6. Drugs and lotions: simple weights and measures technical terms and abbreviations in common use.
Administration of drugs orally. Care of simple and dangerous drugs.
7. Hot applications;
Filling hot water bottles.
8. Cold applications;
 - (a) Filling ice bags.
 - (b) Cold compresses.

BANDAGING

9. Types of bandages and their uses. Application of roller and triangular bandages Use of simple splints.
10. Roller bandaging: simple and reverse spiral and figure of eight, spica of elbow, knee and heel, bandage of the hand, fingers and thumb, ascending shoulder spica, bandage of the ear, eye and carbuncle.
11. Triangular bandaging: Slings.

NURSING**Marks :85 CLASS-XII (PART-II) Time : 3:00 Hours****I. ANATOMY AND PHYSIOLOGY****1. Digestive system;**

Alimentary tract and associated organs: position, structure and functions.

Simple description of the process of digestion and absorption.

2. Metabolism:

Simple description of the metabolism of proteins, fats and carbohydrate.

Body heat and regulation of body temperature.

3. Excretory system

Kidneys and urinary bladder: structure and function.

Simple description of the formation of urine. Composition of urine.

Micturition,

Skin: structure and function. Hair and nails.

4. Endocrine system

Brief outline of the endocrine glands. Structure and function of the pancreas, thyroid, parathyroid, suprarenal and pituitary glands,

5. Nervous system-

Central nervous system: cerebrum, cerebellum, medulla and spinal cord.

Peripheral nerves and reflex action.

Autonomic nervous system.

Organs of special sense,

6. Reproductive system.

Structure and function of the male and female reproductive organs.

II. DIETETICS**1. Essential nutrients:**

Protein, carbohydrates, fats, vitamins, mineral salts and water.

2. Calorie values and requirements.**3. Balanced diet.****4. Practical:**

(a) Simple food tests for proteins, Carbohydrates and fs.

- (b) Enzyme action eg. action of saliva on starch.
- (c) Sickroom cookery: tea, barley water, albumin water egg frip, scrambled egg, baked custard, egg jelly, orange jelly, vegetable soup.

III. HEALTH OF MOTHER AND CHILD

1. Preparation for marriage and parenthood.
The importance of a happy home environment on the physical and mental development of the child-
Parental responsibilities in promoting character development.
2. Importance of good maternity care.
Signs and symptoms of pregnancy; antenatal care.
Brief outline of fetal development and the birth of the baby, Post-natal care.
3. Care of the baby;
Breast and artificial feeding; weaning.
Bathing the baby.
Immunisation.
4. Maternal and child welfare services.
5. Family Planning;
The need for family planning at the national level and the family level.

Recommended books:

- (1) Anatomy and Physiology for Nurses-by W. Gardon Sears.
- (2) Aids to Practical Nursing Marjorie Houghton.
- (3) An Introduction to Hygiene and Public Health by Dr. Niazi,
- (4) Maternal and Child Welfare Manual—Susan Tracy and Archibald Norman, published by British Red Cross Society
- (5) Sir John's Ambulance First Aid Manual.

INSTRUCTIONS FOR PRACTICAL TRAINING

- (1) **For Regular Students**
 - (a) One period per week through-out the two years course, for practical instructions in the class room in the college.
 - (b) In addition to this, during the second year, each student should visit a recognized hospital weekly for at least one hour's practical bed-side nursing so that a minimum total of 30 hours Ward experience is gained. A certificate to this effect should be signed by the nursing Superintendent of the hospital and forwarded to the Principal of the college concerned.

(2) For Private Students

No Private candidate is allowed to take the examination unless she has produced a certificate from the Nursing Superintendent of a teaching hospital to the effect that she has put in the minimum of 30 hours of practical work in the hospital.

NURSING**Division of Practical
PART - II (CLASS XII)****NURSING CARE OF THE PATIENT**

1. Changing sheets from side to side with the patient in bed, operation, bed, Fracture bed and use of bed Cradles.
 2. Care of pressure areas, causes, prevention and treatment of bedsores.
 3. Care of the mouth and teeth, including those of a helpless patient,
 4. Inhalation : preparation of moist inhalations,
 5. **Enemas :**
 - (a) Those to be returned eg. soap, olive oil and glycerin enemas.
 - (b) Those to be retained eg. continuous rectal infusion.
 6. Tepid sponging.
 7. Testing of Urine for albumin and sugar Reaction and specific gravity,
- FIRST AID**
8. General principles of first aid.
 9. Shock.
 10. Hamorrhage including epistaxis, Haemoptysis,
 11. Fractures, sprains and dislocations.
 12. Wounds, abrasions and bruises.
 13. Bites and stings.
 14. Burns and scalds.
 15. Loss of consciousness;
fainting, fits and convulsions.
asphyxi from drowning, choking and carbon monoxide gas Electrocutation,
 16. Poisons: general principles of treatment, Foreign bodies, Ear, .Nose,
Throat and Stomach.
 17. Artificial respiration:
 - (a) Holger Nielson.
 - (b) Mouth to mouth.

ISLAMIC STUDIES GROUP

This group will comprise the following three subjects;

(1)	ARABIC	Marks
	PART I	100
	PART II	100
(2)	ISLAMIC STUDIES	
	PART I	100
	PART II	100
(3)	ISLAMIC HISTORY AND CULTURE	
	PART I	100
	PART II	100

(1) ARABIC

PART I (CLASS-XI) 100 Marks

The syllabus and time will be the same as that of Arabic (Elective) Paper A (Part-I) in Humanities Group.

PART II (CLASS-XII) 100 Marks

The syllabus and time will be the same as that of Arabic (Elective) Paper B (Part-II) in Humanities Group.

(2) ISLAMIC STUDIES*Syllabus.***Marks : 100****PART I****Time : 3 hours**

- (1) **Al-Fiqh**-Chapters on Taharat, Salat, Saum and Zakat from Multapal Abhur or Al-Quduri.
- (2) **Usul al-Fiqh**—The four Usul, viz. Kitab, Sunnah, Ijma and Qias.

Marks : 100**PART II****Time : 3 hours**

- (1) **Al-Quran** : Surat al-Baqra with translation and explanation. 70Marks
- (2) **Al-Hadith**: Mishkatal-Masabih from Kitab-al-Inam to the end of Kitab-al-Ilam. 30Marks

(3) ISLAMIC HISTORY AND CULTURE**Marks : 100****PART I (CLASS-XI)****Time : 3 hours**

The political and cultural history of Islam upto the Umayyad period.

1. *Background of Islam.*

- (i) **Pre-Islamic civilization of the Near East:** Assyrian and Babylonian civilization, the Hebrew-monotheism Byzantines; Christianity; imperial administration. The Sassanians – Zoroastrianism, ideas of monarchy. Political, social and cultural life of the Arabs before Islam.
- (ii) **Life of the Prophet:** His early life; mission and early difficulties; Hijrat; wars and ultimate triumph; beliefs and institutions of Islam; character and achievements of the Prophet as a social reformer and builder of a new millat.

2. *The early Caliphs.*

- (i) **Abu Bakr:** His election as Caliph; Osama's expedition; suppression of rebellions and apostasy; beginning of the clash with the Persian and the Roman Empires; Abu-Bakr's character and achievements.
- (ii) **Omar:** Spread of Islam and expansion of Arab rule in Iraq, Persia, Syria and Egypt; emergence of Islam as a great power; evolution of civil government and military organization; treatment of non-Muslims; his character and achievements.
- (iii) **Osman:** Continuation of the expansion of Islam; his character and achievements.
- (iv) **Ali:** Succession of Ali; civil wars; origin of the 'Shias' and the 'Kharjis'; Ali's administration; his assassination; his character and achievements.
- (v) Progress of Islam in the period of the early Caliphs; its political, social, economic and cultural aspects.

3. *The Umayyads*

- (i) **Amir Muawiyah:** Abdication of Imam Hasan; Establishment of the Umayyad dynasty; Amir Muawiyah's campaigns and conquests; measures to consolidate dynastic rule of administration; beginning of the Arab navy ; Amir Muawiyah's character and achievements.
- (ii) **Carrier and character of Imam Hussain;** Events leading to the tragedy of Karbala; its religious, moral and political significance.
- (iii) **Abdul Malik:** Restoration and consolidation of Umayyad rule; campaigns against the Byzantines, Berbers and Kharjis; his policy and administrative reforms.

- (iv) **Walid bin Abdul Malik:** Spread of Islam and expansion of the Arab rule in Asia, Africa and Europe, his works of public utility; promotion of art and architecture; growth of naval-power grandeur of his reign.
- (v) **Sulaiman bin Abdul Malik:** His ill-treatment of the Muslim generals; military campaigns and conquests; seize of Constantinople.
- (vi) **Omar bin Abdul Aziz:** His character, zeal for reforms and achievements.
- (vii) **Later Umayyad rulers;** The Armenian and Caucasion wars; campaigns in France, causes of the decline and fall of the Umayyads.
- (viii) **Nature of the Umayyad rule:** Growth of the Arab Empire in this period; administration- provincial and central; military organization; social, cultural, and economic condition; the capital and the royal court; architecture and paintings.

Marks : 100 PART II CLASS-XII(Option i) Time : 3 hours

The political and cultural History of Islam from the beginning of the Abbasids to the fall of Baghdad

1. The Abbasids:

- (a) Foundation and consolidation of the Abbasid dynasty ; Abbasid propaganda the appearance of Abu Muslim and the establishment of the Abbasid dynasty; Al-Saffah; Al-Mansur, the real founder of the dynasty; consolidation of the Abbasid rule; foundation of Baghdad; rise of the Barmaki family and growth of the Persian influence.
- (b) Mahdi and suppression of the Mutazalities; glory of reign of Haroon; fall of the Barmaki family.
- (c) Mamun; his patronage of Mutazalities; intellectual and literary development under Mamun.
- (d) Mutasim and the beginning of the Turkish ascendancy; Samara; Al-Mutawakkil; rise of the local Persian dynastics; the Buwayhids; the Saljuqs; Tughril, Alp Arslan and Malik Shah; the Ayyubis in Egypt and Syria.
- (e) The Crusades; causes and effects; Salah-ud-Din Ayyubi.
- (f) Mongol invasion of the Muslim world and the sack of Baghdad 1258 A.D. Causes and effects of the fall of Baghdad.
- (g) Nature of the Abbasid caliphate; ascendancy of the Persian influence; wazarat and administration.
- (h) (i) **Foreign relations of the Abbasids.**

- (ii) **Social and economic conditions;** position of the slaves and treatment of the non-Muslims.
 - (iii) **Scientific and literary progress;** Medicine, geography, astronomy, history, philosophy, literature and poetry law and jurisprudence, political thought.
 - (iv) **Education;** Institutions of higher learning, literary societies, libraries.
 - (v) **Fine Art;** Architecture, painting, calligraphy and music.
2. ***Fatimid Caliphate in Egypt:***

Ismaili Sect, origin of the Fatimids; establishment of the Fatimid rule in Egypt; Al-Muizz and expansion of the Fatimid rule in Sicily, Italy and Arabia; Al-Aziz; patronage of art, architecture and education; Al-Azhar; Decline and fall of the Fatimids, the rise of the Mamluks.

Marks : 100

PART II (Option – ii)

Time : 3 hours

The Cultural System of Islam

Among others, the following specific aspects will be studied in the light of the Kitab and the Sunnah and the writings of eminent Muslims thinkers :

- (a) **The Individual :—**
Study of the Akhlaq-i-Islam with special stress on the following points:
Taqwa, Dhikr, Sabr, Shukr, Afw, Adl, Ihsan, Tadabbur, Tahammul, Khidmat-i-Khalq, Talab-i-Ilm.
- (b) **The Family :—**
 - (i) The nature and purpose of home life.
 - (ii) The role of the mother, father and children.
 - (iii) The rights and duties of husband and wife.
- (c) **The School and the Mosque :-**
 - (i) The nature and purpose of education in Muslim Society.
 - (ii) The role of the Maktab in Society.
 - (iii) The role of Mosque in society.
- (d) **Muslim Society :—**
The rights and duties of :-
 - (i) Relatives.

- (ii) Neighbours.
- (iii) Citizens;
- (iv) The state.

(e) The World of Islam:

The concept of

- (i) The Umma
- (ii) Ukhuwwat.
- (iii) Tabligh.
- (iv) Jihad.

AGRICULTURE*(Outlines of tests)***PART I****Marks 85****Time : 3.00hours****PART II****Marks 85****Time : 3.00hours****PRACTICAL: 30***Syllabus***Marks : 85****PART I (CLASS-XI)****Time : 3.00 hours**

1. Importance of Agriculture for Pakistan. Division of province into zones according to rainfall and climate. Suitability of different crops for different zones. Elementary knowledge about soil formation, physical constituents and properties of main types of soils in the province.
2. Water holding capacity and movement of water in different types of soils and its effect on crops production—Alkaline and acid soils— their causes and control.
3. (1) Importance of irrigation for area with low rainfall and for crops grown during the dry season of the year. Critical times in the life of crop when irrigation is necessary including those implement commonly used in mechanized farming.
(2) Advantages and drawbacks of irrigation from:
 - (a) Canals.
 - (b) Tube-wells and ordinary wells and
 - (c) Ponds and other means.
(3) Remedial measures for water-logging.
4. (a) Soil conservation and allied practices. Soil fertility and how to maintain it. Conservation of farm-yard manure and making of compost from vegetative matter.
(b) Green manures and its importance. Part played by nitrogen fixing bacteria associated with leguminous plants. Advantages of growing leguminous crops for green manuring or as alternate crops.
(c) Importance of Inorganic and Organic Manures. In crop growth role of major and minor elements.

LIST OF PRACTICALS FOR CLASS-XI (PART I)

1. A group of students will maintain a simple plot of land where they will grow one kharif crop, one Rabi crop and some seasonal vegetables. They will keep a record of all field operations done throughout the year with

- dates and also a record of performance of crops grown by them. They will learn the use of local and improved implements for their field operations so far as possible.
2. Identification of different soils, Experiments of Illustrate physical Properties of sand and clay with special reference to their comparative weights, permeability to water and their relative water holding capacity.
 3. Identification of different organic and inorganic manures.
 4. Field trips in the locality.

Note :-A record of all practical work done throughout the year will be maintained and produced at the time of Practical examination.

Marks : 85

CLASS-XII (PART II)

Time : 3.00 hours

1. Parts of a plant and their functions in detail—root, stem, leaf, flower, fruit and seed.
2. Germination of seeds—condition essential for germination; qualities of good seed.
3. Plant nutrition—essential elements required for plant growth. How these are taken by plants?
4. Soil, season and rainfall requirements of important Kharif and Rabi crops of the province.
5. Soil, time of sowing, seed rate, water requirements importance of gardens and vegetable crops of the province.
6. Out turn, cost of production and profits obtained from important field crops and vegetable crops.
7. Principles underlying rotation of crops.
8. Recognition of weeds growing in crop fields; steps to be taken for eradicating weeds.
9. Recognition of major local insect pests and diseases of crops—Identification of insect pests at different stages of their life cycle. Step to be taken for controlling different insect pests and plant diseases.
10. Recognition of important breeds of milch, cattle, draft animals, sheep and goats and poultry. Elementary knowledge of general management. Care and feeding of cattle, sheep goats and poultry.

11. Chemical fertilizers—methods of their application and doses for important crops.
12. Importance of preparatory tillages—methods and implements used for tillage,
13. Different methods and implements used for seed bed preparation, sowing of crops and inter-tillage.

LIST OF PRACTICALS FOR CLASS-XII (PART II)

1. Testing germination and purity of seeds.
2. Collection and recognition of important weeds of the locality.
3. Collection and recognition of important insect pests and plant diseases of the locality. Controlling of insect pests and plant diseases by spraying, dusting, etc, with suitable chemical.
4. Observation of good and bad points of cattle and determination of important breeds,
5. Field trips in the locality.

Note.-A record of all practical work done throughout the year will be maintained and produced at the time of the Practical examination.

LIBRARY SCIENCE

AIMS AND OBJECTIVES OF EDUCATION IN LIBRARY SCIENCE

1. To develop interest in reading materials and their use in libraries and to promote reading habit among the students.
2. To create among students a better understanding of the usefulness of libraries in their studies and their dynamic role in a fast changing society.
3. To develop among the students the skill to make effective use of library resources and services including library equipments so that irrespective of the career that they may later-on choose for themselves, they can derive maximum benefits out of the library.
4. To acquaint students with the literature of Islam and Pakistan.
5. To promote interest among students for life-long education and help them to develop into good citizens.

Syllabus Library Science

Marks 85

Class XI (Part – I)

Time : 3.00 hours

Paper-I— Introduction of Books and Libraries

This paper will consist of the following five sections:

1. Nature and types of libraries and their use.
2. Nature and types of library materials.
3. History of books and libraries.
4. Use of library materials.
5. Meaning and concept of information.

Scope

1. Definition, concept and brief description of objectives and services of library. Role of the library in society (pages 20).
2. Definition and concept of books and other library materials, Types of library materials, care of library materials (Pages 20)
3. Brief history of writing and writing materials (The Alphabet, papers making and printing). Brief history of libraries in general with special reference to Pakistan. Brief introduction to libraries and the library materials possessed by the city libraries and libraries in the vicinity. (Pages 20).
4. Purpose of books and other library materials. Library materials for use. Methods and ways of making them useable. (Pages 20).
5. The meaning, concept and role of information in generation of knowledge and its usefulness (Pages 20).

Practicals

The practicals for each section will include term papers concerning to the specific topics of each section. This may also include reports of library tours.

Syllabus

EXPECTED OUT-COME

PAPER I—Introduction of Books and Libraries.

SECTION I.—Nature and type of Libraries and their use:

1. An understanding of the meaning and concept of a Library.
2. An awareness about library objectives and services.
3. An understanding of a library's contribution in the life of an individual and in the society at large.

4. An awareness of the usefulness of a library in education and in developing reading habit.
5. An understanding of the impact of machines in the improvement of services offered by a library.

SECTION 2.—Nature and types of Library materials:

1. An understanding of the various types of library materials and their physical forms and characteristics.
2. An understanding of the ways by which these materials can be protected from damage and loss. Also an understanding among students of the care with, which they are required to use the materials to save them from damage disfigurement.

SECTION 3.—History of books and Libraries :

1. An understanding of the development of writing and writing materials with special reference to the Muslim World.
2. An understanding of history of libraries in general with special reference to Pakistan.
3. An awareness of the libraries and the library materials possessed by the city and the libraries in their vicinity.

SECTION 4.—Use of Library Materials:

1. An understanding of the purpose of the library materials in communication of knowledge.
2. An appreciation of the benefit of reading and the role, books have played in influencing the society.
3. An understanding of the ways by which a student can require his desired information from library materials.

SECTION 5.—Meaning and concept of information. It will acquaint the students with:

1. concept of information.
2. Meaning of information.
3. Usefulness of information.

EVALUATION

Paper 1.—Introduction of books and Libraries.

SECTION 1.—Nature and type of Libraries and their use.

1. Assessment of student's knowledge about the meaning concept objectives and services of library and its role in the society.

2. Objective tests.

SECTION 2.—Nature and types of Library materials:

1. Assessment of the nature and types of library materials their physical forms and characteristic and student's understanding of effective use of these materials.
2. Assessment of student's understanding of the ways and means for protection of these materials from damage and loss.
3. Objective tests.

SECTION 3.— History of books and Libraries:

1. Assessment of student's knowledge of the history of writing and writing materials.
2. Assessment of student's knowledge of the history of libraries in general with special reference to Pakistan.
3. Assessment of student's knowledge about the nature and usefulness of local libraries and those located in the vicinity, where visits to libraries are arranged. They may be asked to write assignments on the topic.

SECTION 4.—Use of Library Materials:

1. Assessment of student's knowledge of the purpose form and use of books and other library materials.
2. Assessment of student's knowledge of the methods by which library materials are made useable.
3. Objective tests.

SECTION 5.—Meaning and concept of information :

1. Assessment of student's about understanding and comprehension of concept, meaning and usefulness of information.
2. Objectives Tests.

Recommended Books:

عنوان کتاب :- اساس لائبریری سائنس

مصنف :- ملک محمد ابراہیم

ناشر / پبلشر :- مجید بک ڈپو (22- اردو بازار، لاہور)

Marks 85 Class XII (Part – II) Time : 3.00 hours
Practical: 30

Paper II.—Organization of Library Materials for use

This paper will consist of the following four section:

1. Classification and assignment of Subject Headings
2. Cataloguing of books
3. Use of reference books
4. Circulation of Library materials.

Scope

SECTION 1.—Definition of classification, its importance and use in the Library.

Use of DDC (latest abridged edition restricted to Broad Numbers) and the description of Sear's Subject Heading and its use (Pages 25).

SECTION 2.—Cataloguing—its meaning, concepts, principles and its use in the library, —Brief account of the development of present code of AACR.

Preparation of simple catalogue cards (main entry) according to AACR and cataloguing of Pakistani names (by Dr. Anis Khurshid). Emphasis may be given on books of subject interest of the class, (Pages 25).

SECTION 3.—Types of reference books and their definitions—practical demonstration of the reference books Bibliography, Encyclopedia, Dictionaries, Biographical sources and Almanics). Emphasis may be given to Pakistani reference books. (Pages 25).

SECTION 4.—Lending of Library materials and various records necessary for circulation—charging system used for lending of materials maintenance of other records including Accession Register in the Library (Pages 25).

PRACTICALS (PAPER II)

SECTION 1.—Classification and Assignment of Subject Headings

- (a) Study and practice of 1st, 2nd 3rd summary of DDC.
- (b) Assignment of DDC numbers (Broad Numbers) of books on various subjects.
- (c) Arrangement of books by classification numbers.
- (d) Interpretation of classification numbers by the help of DDC.
- (e) Allocation of Subject Headings to books with the help of Sear's list.
- (f) Arrangement of Subject Headings.

SECTION 2.—Cataloguing.

Preparation of simple catalogue cards according to AACR 2.

SECTION 3.—Reference Sources.

- (a) Study of main features of various types of reference material. Bibliography, Encyclopedia, Dictionaries, Biographical sources and Almanics).
- (b) Practice in the location of specific information with the help of relevant reference book .

Note: Passing in theory as well as practicals in both papers is compulsory.

EVALUATION

PAPER II. — Organisation of Library materials for use.

SECTION 1. – Classification and Assignments of Subject Headings

- (i) Understanding of the concept of arrangement of Books on Shelves by subject.
- (ii) Understanding of the signs and symbols used for the guidance of user for locating their required material.
- (iii) Knowledge of the DDC—its main classes sub-division from divisions
- (iv) Concept of the Subject Headings and their use.
- (v) Objective tests.

SECTION 2.—Cataloguing of Books.

- (i) Understanding of the purpose and functions of a catalogue.
- (ii) Understanding of different types and forms of catalogue.
- (iii) Understanding of the components of main entry card.
- (iv) Understanding of alphabetization.
- (v) Understanding of the different forms of names with especial reference to Pakistan.
- (vi) Objective tests.

SECTION 3.—Use of Reference Books.

- (i) Understanding of the nature of different types of reference books and their important features.
- (ii) Understanding the purpose of different reference books.
- (iii) Understanding of using various reference books for finding required information.
- (iv) Practical exercises and objective tests.

SECTION 4.—Circulation of Library Materials.

- (i) Assessment of Library materials and various records necessary for circulation.
- (ii) Assessment and familiarization of charging system used for lending materials and maintenance of other records including Accession Register

Practicals

- (i) Assessment of the understanding of the students in using DDC abridged edition for classification of books and the use of Sear's Subject Headings for assignment of Subject Headings.
- (ii) Understanding of the AACR 2 entry cards preferably for Pakistani books.
- (iii) Understanding of the various reference books finding required information for the class interest of the students.
- (iv) These assessments will be based on the practicals which a student will be required to perform during his studies.

EXPECTED OUT-COME***Paper II.—Organization of Library materials for use.*****SECTION I.—Classification and assignment of Subject Headings.**

1. Understanding of DDC classification schemes (abridged edition) by which books are classified and Sear's Subject Headings and the ways by which books are classified and arranged on shelves.
2. Students will be able to understand classification symbols and author mark to locate their desired materials on the shelves.
3. Students will thus be able to use the library effectively.

SECTION 2.—Cataloguing of books.

1. Understanding of the concept and functions of a catalogue.
2. Understanding of the need of the bibliographic details of cook on a catalogue and their use in locating books.

3. Will develop ability among students to search their needed material through catalogue.
4. Will create appreciation among students for the standardization of names in a catalogue.
5. Will help a student in preparing a list of books on his subject of nearest.

SECTION 3.—Use of Reference Books

Student will be familiar of various reference sources, find his desired information from them and will be able to use them.

SECTION 4.—Circulation Library Materials.

1. Understanding of library materials and various records necessary for circulation.
2. Understanding and familiarization of charging system used for Lending materials and maintenance of other records including Accession Register.

Practicals

Students will be able to classify books broadly and prepare simple catalogue cards with assignment of Subject Headings.

عنوان کتاب:- پریکٹیکل نوٹ: اساس لائبریری سائنس

مصنف:- ملک محمد ابراہیم

ناشر/پبلشر:- مجید بک ڈپو (22- اردو بازار، لاہور)

COMPUTER SCIENCE**Marks :75 PART-I (CLASS-XI) Time: 2:30 Hours**

Theory: 75 + Practical : 25 Total:100

Topics	Weightage % age
Basics of Information Technology	75
-- Basic concepts of IT <ul style="list-style-type: none"> • Hardware VS Software • Input and Output Devices • Operating System Vs. Computer Programs • Basic Units of Data Storage, Storage and Memory • Systems Development 	10%
Information Networks <ul style="list-style-type: none"> • The Technology of Workgroup Computing • The Benefits of E-Mail • What is the internet and How it is Useful? • LAN and WAN • Concepts, Models, Standards, Network Topologies 	10%
-- Data Communication <ul style="list-style-type: none"> • Introduction of Data Communication • Types of Data • Encoding different types of data • Transmission media • Modem 	10%
Applications and use of Computers <ul style="list-style-type: none"> • Computers and the Opportunities offered by their Use • Types of Systems Encountered in everyday life, Homes, Business, Industry, Education • Understand how Computers can Simplify our Work Practices 	10%
-- Hardware And Systems Software Computer Architecture <ul style="list-style-type: none"> • Block Diagram of Computer (CPU, RAM, ROM, Input / Output, Data Bus, Address Bus, Control Bus and Ports) • Registers, Program Counter (PC), Memory Address Register (MAR), Memory Buffer Register (MBR), 	25%

<p>Instruction Register (IR) Stack.</p> <ul style="list-style-type: none"> • Computer Operations • Simple Machine Instructions Format • Processing Machine Instructions (Fetch- decode-execute) • Understand the Functionality of different Types of Software 	
<p>-- Security Copyright and the Law</p> <ul style="list-style-type: none"> • Viruses and Anti-Virus issues • Data Protection and Privacy issues • Data Protection Legislation and copyright issues 	10%
Use of Application Software	25%
<p>OPERATING SYSTEMS (WINDOWS)</p> <ul style="list-style-type: none"> • Introducing GUI Operating Systems • OS Components and Selection Techniques • Starting to use GUI Operating System • File and Disk Management • Control Printing Jobs 	5%
<p>WORD PROCESSING</p> <ul style="list-style-type: none"> • Starting to use Word Processor • Font, Paragraph, Page Formatting • Introducing Tables and Cols • Using the Clipboard • Printing • Tables, Text Boxes, Graphics and Wordart 	8%
<p>SPREAD SHEET</p> <ul style="list-style-type: none"> • Introduction to Spread Sheet Packages • Spread Sheet Layouts • Formatting and Customizing Data • Formulas, Functions and Named Ranges • Introducing Charts • Printing Worksheets and charts 	7%
<p>INTERNET BROWSING AND USING EMAIL</p> <ul style="list-style-type: none"> • Introduction to Browsing • Addresses, Links & Downloading • Searching the Internet • Email & Newsgroups 	5%

Marks :75

(CLASS-XII)

Time: 2:30 Hours

Theory: 75 + Practical : 25 Total:100

Topics	Weightage % age
Database Basics <ul style="list-style-type: none"> • Introduction to Database Concepts • Database concepts, Terminology and Usage • Database Design and Table Creation • Formatting a Table • Relationships • Locating and Replacing information • Creating Simple Queries • Creating Calculated Fields • Introducing Forms • Formatting and Creating Forms • Formatting and Creating Reports 	40
<p style="text-align: center;">Programming using C OR Programming using VISUAL BASIC</p> <p>Option I: Outline for C</p> <ul style="list-style-type: none"> • Characteristics of High Level Programming Languages • Basic Structure of Program • Creating, Editing and Saving a Source Program • Compiling, Linking and Executing A Program • Variables: character, integer, long integer, floating point, double precision • Input/Output, printf, scanf, format Specifier, Field Width Specifier • Operators: Arithmetic, Relational, Logical Operators • Comments • Loops: for loop, while loop, do-while • Decision: if Statement, if-else Statement, else-if, switch Statement, Conditional Operator • Importance of Functions • Simple Functions • Function Passing Arguments and Returning Values 	60

<ul style="list-style-type: none"> • Open File, Read, Write, Append and Close File <p style="text-align: center;">OR</p> <p style="text-align: center;">Option II: Outline for Visual Basic</p> <ul style="list-style-type: none"> • I/O Statements • Control Statements • Working with Forms 	
<ul style="list-style-type: none"> • Variables and Arrays • Functions and Procedures • Basic ActiveX Controls • Drawing with Visual Basic • Advanced ActiveX Controls • Database Programming with Visual Basic • The Active Data Objects • Scripting Objects • Visual Basic and the Web 	

LIST OF PRACTICALS FOR CLASS-XI (PART – I)

WINDOWS

- (1) (a) Use of Start Menu
 - (b) Manage Program Group & Document Group
 - (c) How to access Search Group
 - (d) Customize the Desktop
- (2) **Use of Windows Help**
- (3) **Use of Windows Accessories:**
 - (a) Word Pad
 - (b) Calculator
 - (c) Paint
- (4) **Use of Windows Accessories:**
 - (a) Managing files and folders - Using My Computer
 - (b) Managing files and folders Windows Explorer
 - (c) Managing Recycle Bin operations.
- (5) **Printer:**
 - (a) Installation of printer driver

- (b) Setting of different properties of printer
- (c) Managing the quees of printing jobs

MS Word

- (6) (a) Open and Save files in specified path or New Folder
- (b) Selection of text by different methods and applying a different operations:
Copying, Moving (by Clipboard and Drag & Drop methods) Deletion,
- (7) Formating text (Bold, Underline, Font, Color etc.)
- (8) Using Undo and Redo
- (9) Use of Text Alignments, Indenting and managing space also use of Bullets and Numbering.
- (10) Use of Page Setup including Page Margin, Size, Paper Source and Layout.
- (11) Skills of Printer Settings.
- (12) Use of Tables and Columns.
- (13) Use of Spell Check, Grammar and phrases.
- (14) Use of short cuts.

MS-EXCEL

- (15) Inserting & Deleting Cells, Rows and Columns.
- (16) Managing Worksheets.
- (17) Formatting and Customizing Data.
- (18) Use of Formulas and Functions.(Formatting Numbers decimal plasces, column & rows setup etc.)
- (19) Drawing of Different Types of Charts.
- (20) Use of Page Setup and Printing Configurations.
- (21) Use of shortcuts.

INTERNET EXPLORER

- (22) Send/receive email to a single user, multiple users
- (23) Attach/Detach files with mail
- (24) Browsing Internet
- (25) Use of shortcuts
- (26) Proper use of search engines.

LIST OF PRACTICALS FOR CLASS-XII (PART – II)**MS-ACCESS**

- (1) Creation different tables Tables and assign primary key
- (2) Create simple Queries using wizard and design view
- (3) Create relationship between tables
- (4) Create simple forms using wizard and design view
- (5) Create reports using wizard and design view
- (6) Use of summary and calculated fields

Visual Basic

- (1) Create a simple form to add two numbers using textboxes and buttons.
- (2) Create a simple form to perform other arithmetic computations (multiply, divide subtract)
- (3) Create a form to display table of a given integer.
- (4) Create a form which generates series of numbers within given limits using FOR loop.
- (5) Create a form which generates series of numbers within given limits using DO WHILE loop.
- (6) Find factorial of N using any loop statement, read value from a text box and write it in another text box.
- (7) Define a program to read use salary from a text box and calculate its tax depending upon the bracket in which it falls (using if-elseif-else).
- (8) Create a function which returns area of circle of a given radius.
- (9) Use a form to save/retrieve data from user in text boxes and save it to a MS ACCESS table.
- (10) Use text boxes, combo boxes, tree-list to save/retrieve data to/from MS ACCESS table.
- (11) Use different property sheets to change appearance and format of text item.
- (12) Use property sheet to modify form background properties.

PRACTICALS FOR C-LANGUAGE:

- Exp.1** Writing a program which prints a text of 4 lines consisting of characters, integer values and floating point values using 'printf' statement.
- Exp.2** Writing a program that reads and prints the data using Escape Sequence. (Asking the name, age, height and gender of the student using scanf and printf statements.)

- Exp.3** Writing a program, which uses Operators (calculate the area of triangles, volume of spheres and arrange the resultant values in ascending order.)
- Exp.4** Writing a program which uses 'for' loop statement. (Generate the multiplication table from 2 to 20).
- Exp.5** Writing a program which uses 'while' loop and Nested 'while' loop. (Use 'for' loop and continue the process in 'while' loop satisfying this condition):
- Exp.6** Finding the factorial of N using 'while' loop, read value of N using scanf, and print the factorial of various N.
- Exp.7** Draw a checkerboard and print it using if-else statement, and extend the program using Nested if- else.
- Exp.8** Writing a program which uses a 'switch' statement and breaks the program if certain condition is observed. Repeat the program with 'case' statement.
- Exp.9** Writing a function, which generates factorial of N and calls this function in the 'main' program.
- Exp.10** Writing a program which uses multiple arguments in a function. (Develop a user-defined function to generate a rectangle. Use the function for passing arguments to draw different sizes of rectangles and squares.)

Computer Science Part – I

Authors: 1. Mirza Mubbasher Baig
2. Mr. Asif Ali
3. Shaheena Naaz

Editor: Syed Zulqarnain Jaffery

Publisher: S.S. Publisher Lahore

Computer Science Part – II

Authors: 1. Syed Zulqarnain Jaffery
2. Ms. Shaheena Naaz
3. Mr. Asif Ali Magsi

Editor: Mirza Mubbashar Baig

Publisher: Kitab markaz Faisalabad

CIVICS

Marks: 100 PART-I (Class- XI)
Time: 3.00 Hours

CHAPTER-I CIVICS - WHAT IS IT?

Concepts	Contents
1. Introduction 2. Relationship with other social sciences	1. Definition 2. Nature 3. Significance 4. Utility 5. Relationship of civics with Political Science, History, Economics, Sociology & Ethics

CHAPTER-II THE BASIC CONCERN

Concepts	Contents
1. Civics and human needs 2. Individual 3. Family 4. Community 5. Society 6. Nation and Nationality 7. Muslim Ummah	1. The harmonic relationship between the members of society e.g. childhood. socialization, gender, religion. 2. Individual as a member of state 3. Family a basic social institution 4. Nature & Significance of community 5. Society 6. Nation and Nationality & Muslim Ummah

CHAPTER-III STATE

Concepts	Contents
1. Introduction 2. Distinctive nature of state. 3. Islamic background. 4. Welfare State.	1. Definition 2. Elements 3. Origin 4. Distinction of state from: <ul style="list-style-type: none"> - Government - Society - Nation 5. Conceptual basis of state in Islam 6. Welfare State and equity issues with reference to gender, religion, area & social classes.

CHAPTER-IV SOVEREIGNTY

Concepts	Contents
<ol style="list-style-type: none"> 1. Understanding Sovereignty. 2. Islamic Background 	<ol style="list-style-type: none"> 1. Definition 2. Salient features 3. Forms Manifestation of Sovereignty 4. Theories of Sovereignty 5. Basic principles of Sovereignty in Islam.

CHAPTER-V GOVERNMENT

Concepts	Contents
<ol style="list-style-type: none"> 1. Introduction 2. Classification 3. Organs 4. Good Governance 	<ol style="list-style-type: none"> 1. Meaning 2. Democracy and Dictatorship 3. Parliamentary 4. Presidential 5. Federal & Unitary 6. Legislature 7. Executive 8. Judiciary 9. Definition 10. The role of Good Governance in Islamic Democratic Government 11. Obstacles and remedies 12. Accountability

CHAPTER-VI LAW AND RELATED MATTERS

Concepts	Contents
<ol style="list-style-type: none"> 1. Understanding Law 2. Islamic Law 3. Liberty and Equity 	<ol style="list-style-type: none"> 1. Meaning 2. Sources 3. Kinds 4. Meaning 5. Sources 6. Objectives 7. Meaning of liberty & equity 8. Relationship between Law, Liberty and Equity

CHAPTER- VII CITIZEN AND CITIZENSHIP

Concepts	Contents
1. Introduction	1. Definition
2. Human Rights and Responsibilities	2. Qualities of good citizenship
	3. How citizenship acquired and lost?
	4. Definition
	5. Rights and responsibilities of a citizen in Islamic perspective
	6. UN Declaration of Human Rights

CHAPTER-VIII CONSTITUTION

Concepts	Contents
1. Introduction	1. Definition of constitution
	2. Kinds of constitutions
	3. Characteristics of a good constitution

CHAPTER-IX POLITICAL DYNAMICS

Concepts	Contents
1. Public Opinion	1. Meaning
2. Elections and Electorate	2. Formulation
3. Political Parties	3. Agencies
4. Devolution of Power Plan	4. Conditions for sound public opinion
	5. Meaning
	6. Significance of Elections in a democratic state
	7. Islamic Concept
	8. Direct and indirect Elections
	9. Referendum
	10. Plebiscite
	11. Introduction
	12. Objectives
	13. Role

Marks: 100 PART-II (Class- XII)**Time: 3.00 Hours****CHAPTER-X PAKISTAN MOVEMENT**

Concepts	Contents
1. Ideology of Pakistan	1. Meaning of Ideology
2. Important Events of Pakistan Movement	2. Significance of Ideology of Pakistan
	3. Ali Ghar Movement

	<ol style="list-style-type: none"> 4. Back ground and formation of All India Muslim League- 1906 5. Lucknow Pact 1916 6. Khilafat Movement 1919 7. Act of 1935 8. Pakistan Resolution 1940 9. 3rd June plan
--	--

CHAPTER-XI CONSTITUTIONAL DEVELOPMENT 1947-1973

Concepts	Contents
<ol style="list-style-type: none"> 1. Introduction to constitutional development from 1947-1962 2. The constitution of the Islamic Republic of Pakistan 1973 	<ol style="list-style-type: none"> 1. A brief historical outlook on constitutional development from 1947-56 2. Salient features of constitution of 1956 and 1962 3. Separation of East Pakistan in 1971 roots and causes 4. Salient features and Islamic Provisions of 1973 constitution <ol style="list-style-type: none"> I. Parliament II. President, Prime Minister III. Provincial Autonomy IV. Supreme Court and High Courts V. Islamic Provision

CHAPTER-XII SOCIAL SERVICES IN PAKISTAN

Concepts	Contents
Social Services with specific reference to Health & Education.	<ol style="list-style-type: none"> 1. Structure and Facilities 2. Problems

CHAPTER-XIII SOCIAL ORDER IN PAKISTAN

Concepts	Contents
<ol style="list-style-type: none"> 1. Introduction 2. Implementation Concerns 	<ol style="list-style-type: none"> 1. Meaning 2. Significance 3. Requisites of Proper social order fulfilling the principle of liberty, justice, equity and authority in Islamic perspective 4. Prevailing situation of social order in Pakistan and role of

	Islamic Values for maintaining social order and justice in welfare state Role of Police in Pakistan
--	--

CHAPTER-XIV NATIONAL INTEGRATION AND COHESION

Concepts	Contents
<ol style="list-style-type: none"> 1. Introduction 2. Problems and remedies 	<ol style="list-style-type: none"> 1. Meaning 2. Importance 3. National Integration and cohesion in an Islamic State 4. Problems in the way to national integration and cohesion in Pakistan 5. remedial measures keeping in view the ideological basis of Pakistan.

CHAPTER-XV PAKISTAN AND THE WORLD

Concepts	Contents
<ol style="list-style-type: none"> 1. Pakistan's Foreign Policy 2. Pakistan and U.N 	<ol style="list-style-type: none"> 1. Determinant of Pakistan's foreign policy 2. The main features of Pakistan's foreign policy 3. Pakistan's foreign relations with its neighbours 4. Role of Pakistan in O.I.C and E.C.O 5. U.N and its organs 6. U.N role in Solving international Problem i.e. Kashmir. Afghanistan. Palestine.

Recommended Book: Civics (Part-I)

Authors: 1) Prof. Aftab Ahmad Dar 2) Prof. Hallema Naz Afridi

Publisher: Qari Publisher, Lahore.

Recommended Book: Civics (Part-II)

Authors: 1) Prof. Rehman-ul-Allah Ch.. 2) Prof. Muhammad Farooq Malik

Publisher: Maktaba Saedyaa, Lahore.

COMMERCIAL PRACTICE

(There will be two papers of 100 marks each)

(*Outlines of tests*)

PART-I (CLASS XI)	Marks
Accountancy OR Business Correspondence.	100
PART-II (CLASS XII)	100
Typewriting and Shorthand. (English or Urdu)	

Syllabus.

Elective subject which may be opted as a single subject by any student who is not taking the full Commerce Group of subjects. The subject may be taken in two parts as indicated below:

Marks : 100 PART I (CLASS-XI) Time : 3:00 Hours

ACCOUNTANCY (Option i)

1. Introduction.

Book-keeping and business transaction –definition, objects and advantages of book-keeping – nature of business transactions.

2. Principles of double entry.

1. Accounts and their classification–rules for debit and credit (Dr. & Cr).
2. Books of account – Journal and Ledger.

3. Journals.

Simple cash book, double column cash book, triple column cash Book, petty cash book kept on the imprest system–purchases, sales and return books – journal proper or general journal.

4. Ledger.

Its nature and importance-posting, folioing, cast and carry forward-balancing.

5. Trial Balance.

Definition, purpose and preparation.

6. Adjustments.

Accrued and outstanding income and expenses, closing stock depreciation and reserves.

7. Financial Statements.

Trading, Profit and Loss Account Balance sheet.

8. Miscellaneous.

1. Capital and Revenue-expenditure, income, payments, receipts, profit or loss-allocation.
2. Error and their correction-book-keeping and trial balance error-localization of errors-suspense account-correction of errors.

Recommended Books:

Principles of Accountancy by M.A. Ghani,
(M/S. Salman Publishing Company, Lahore).

Marks : 100 PART I (CLASS-XI) Time : 3:00 Hours

BUSINESS CORRESPONDENCE (Option ii)

1. Commercial correspondence. Essentials of a good business letter-different parts and arrangement of a business letter.
2. **Kinds of business letters.**
 1. Application for a post and letter of appointment.
 2. Enquiry and its reply.
 3. Orders and indents.
 4. Reference.
 5. Advice.
 6. Complaints and claims.
 7. Circulars.
 8. Collection and dunning.
 9. Replies to advertisements regarding agencies.
3. **Official and demi-official correspondence.**
 1. Memorandum.
 2. communication with subordinates.
4. **Postal information. Preparation of letters for the post-enclosures-writing of addresses.**
5. Sorting, filling, docketing, indexing and endorsing business letters.
6. Noting, drafting and compilation of letters from brief notes.

Recommended Books:

- ۱- مخزن تجارت از محمد حسین
- ۲- اصول تجارت از بخش بختیار علی

Marks : 100 PART II (Option i) Time : 3 Hours

(English Shorthand and Typewriting)

1. **Shorthand.** The standard to be attained will such as a to satisfy tests of the following nature:
Speed Test: A passage or a commercial letter about 300 words dictated at a speed of 60 words per minute with a maximum permissible error of 2%
Note : Pitman or Gregg systems will be accepted.
2. **Typewriting.** The standard to be attained should be such as to enable the student to take the following tests.
 - a. **Typing** from manuscript with corrections, insertions and deletions.
 - b. **Accuracy Test:** Typing from a printed sheet containing about 350 words at a minimum speed of 35 words per minute on international standards.
 - c. **Tabulation:** Typing out a tabulated statement. Lines are to be drawn in the type-writer.

Note: In the accuracy test one mark will be deducted for every two mistakes.

Recommended Books:

1. New Method Typewriting Instructor
by Muhammad Tufail Nasim.
2. Modern Course in Touch Typewriting
by Mr. Muhammad Mohsin.
3. Manual of typerwriting
by A.M. Hashmi and H.A. Syed.

Marks : 100**PART II (Option ii)****Time : 3 Hours****(Urdu Shorthand and Typewriting)****1. Shorthand.**

The standard to be attained will be such as to satisfy tests of the following nature:

Speed Test: A passage or a commercial letter of about 420 words dictated at a speed of 70 words per minute with a maximum permissible error of 3%

Note : Pitman or Gregg systems will be accepted.

2. Typewriting. The standard to be attained should be such as to enable the student to take the following tests.

a. Speed Tests Typing from printed sheet containing 250 words at a minimum speed of 25 words per minute.

b. Tabulation: Typing out an easy tabulated statement. Lines are to be drawn on the type-writer. The statement will comprise no more than five lines.

c. Typing an official or a business letter (In duplicate)

Note:

Shorthand Time: 1 $\frac{1}{2}$ hour Typewriting Time :1 $\frac{1}{2}$ hour (Speed Test : 10 minutes)	}	Both Shorthand and Typewriting will carry 50 marks each. (Speed test will carry 20 marks, while the other two Typewriting questions will carry 15 marks each).
---	---	--

Recommended Books:

1. Urdu Shorthand Instructor (Pitman system)
by Muhammad Tufail Nasim.
2. Urdu Typewriting Instructor
by Mr. Zafar Iqbal Zafar.

تَرْجَمَةُ الْقُرْآنِ الْمَجِيدِ
 وقت: 02:00 گھنٹے
 پارٹ-1 (جماعت گیارہویں)
 کل نمبر: 50
 فہرستِ عنوانات

- 1- قرآن مجید کے آداب
- 2- ہدایات برائے اساتذہ کرام
- 3- مقاصد تدریس
- 4- سُورَةُ الْبَقَرَةِ: تعارف اور خصوصیات
- 5- سُورَةُ الْبَقَرَةِ: مضامین اور اہم نکات
- 6- سُورَةُ الْبَقَرَةِ: متن و ترجمہ
- 7- سُورَةُ الْبَقَرَةِ: مشق
- 8- سُورَةُ آلِ عَمْرَانَ: تعارف اور خصوصیات
- 9- سُورَةُ آلِ عَمْرَانَ: مضامین اور اہم نکات
- 10- سُورَةُ آلِ عَمْرَانَ: متن و ترجمہ
- 11- سُورَةُ آلِ عَمْرَانَ: مشق
- 12- سُورَةُ الْأَنْفَالِ: تعارف اور خصوصیات
- 13- سُورَةُ الْأَنْفَالِ: مضامین اور اہم نکات
- 14- سُورَةُ الْأَنْفَالِ: متن و ترجمہ
- 15- سُورَةُ الْأَنْفَالِ: مشق
- 16- سُورَةُ التَّوْبَةِ: تعارف اور خصوصیات

17- سُورَةُ التَّوْبَةِ: مضامین اور اہم نکات

18- سُورَةُ التَّوْبَةِ: متن و ترجمہ

19- سُورَةُ التَّوْبَةِ: مشق

20- ماڈل پیپر برائے جماعت گیارہویں

21- رموز و اوقاف قرآن مجید

22- تصدیقی سرٹیفکیٹ

درسی کتب کا نام: تَرْجِمَةُ الْقُرْآنِ الْمَجِيدِ (برائے گیارہویں جماعت)

بک ڈویلپر: جدید ایجوکیشنل سروسز، لاہور