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Page No

20. Islamic History / Muslim History
21. Elements of Home Economics
22. Saraiki ◈
23. Environmental studies ◈
24. History of Civilization ◈
25. Agriculture ◈
26. Secretarial Practice ◈
27. Business Studies ◈

◈ Syllabi not yet available

DARS-E-NIZAMI GROUP

1. Urdu
2. English
3. Pakistan Studies
4. Seerat ul Rasool (خَاتَمُ النَّبِيِّنَ صَلَّى اللهُ عَلَيْهِ وَعَلَى اٰلِهِ وَاَصْحَابِهِ وَسَلَّمَ)
5. General Mathematics
6. General Science

ELECTIVE SUBJECTS (Dars-e-Nizami Group)

1. Al-Quran
2. Al-Hadith **(Darsi Nizami Group introduced in the existing scheme of studies for Secondary School Certificate under General Group)**

LIST OF TECHNICAL SUBJECTS

1. Geometrical & Technical Drawing
2. Electrical Wiring
3. Wood Work (Furniture Making)
4. Repair & Maintenance of Domestic Refrigerator & Air Conditioner
5. Computer Hardware
6. Poultry Farming
7. Fish Farming
8. Dress Making and Fashion Designing
9. Beautician

◈ --- ◈ --- ◈

SCIENCE GROUP

Sr.#	Subject	Part-I	Part-II	*Practical*
1.	Urdu (In lieu of Urdu, Geography of Pakistan for Foreign Students Only).	75	75	
2.	English	75	75	
3.	Islamiyat Compulsory **OR** Religious Education (For Non-Muslims)	50	50	
4.	Translation of the Holy Quran **OR** Ethics (For Non-Muslims)	50	50	
5.	Pakistan Studies	50	50	
6.	Mathematics	75	75	
7.	Physics	60	60	*30*
8.	Chemistry	60	60	*30*
9.	Biology	60	60	*30*
	OR Computer Science	50	50	*50*
	Total Marks:		**1200**	

* Foreign students may opt GEOGRAPHY OF PAKISTAN in lieu of Urdu Compulsory subject to the approval of the Board.
* Non-Muslim candidates can opt Ethics in lieu of Islamiyat Compulsory.

HUMANITIES GROUP

Sr.#	Subject	Part-I	Part-II	*Practical*
1.	Urdu (In lieu of Urdu, Geography of Pakistan for Foreign Students Only).	75	75	
2.	English	75	75	
3.	Islamiyat Compulsory **OR** Religious Education (For Non-Muslims)	50	50	
4.	Translation of the Holy Quran **OR** Ethics (For Non-Muslims)	50	50	
5.	Pakistan Studies	50	50	
6.	General Mathematics	75	75	
7.	General Science	75	75	
8.	Two Elective Subjects (from the lsit of Elective Subjects)	75+75	75+75	
	OR (in case of Elective Subjects with Practical)	60	60	*30*
	(in case of Tehcnical Subjects) Two Technical Subjects	40+40	40+40	*140*
	OR One Elective Subject	75	75	
	& One Technical Subject	40	40	*70*
	Total Marks:		**1200**	

Note: Marks distribution in elective and technical subjects is according to the marks given in the list of elective and technical subjects.

SCHEME OF STUDIES –SSC GRADES IX & X
(HUMANITIES GROUP) ELECTIVE SUBJECTS

Sr.#	Subject	Part-I	Part-II	Practical
1.	Civics	75	75	
2.	Education	75	75	
3.	Economics	75	75	
4.	Elements of Home Economics	75	75	
5.	Physiology & Hygiene	75	75	
6.	Geography	75	75	
7.	Food & Nutrition	60	60	30
8.	Clothing & Textile	60	60	30
9.	Military Science	75	75	
10.	History of Pakistan	75	75	
11.	English Literature	75	75	
12.	Urdu Literature	75	75	
13.	Art & Model Drawing	40	40	70
14.	Persian / Arabic / Punjabi / Saraiki	75	75	
15.	Advanced Islamic Studies	75	75	
16.	Health & Physical Education	60	60	30
17.	Computer Science	50	50	50
18.	◈ Environmental Studies	75	75	
19.	◈ Muslim History	75	75	
20.	◈ History of Civilization	75	75	
21.	◈ Agriculture	75	75	
22.	◈ Secretarial Practice	75	75	
23.	◈ Business Studies	75	75	
24.	Commercial Geography	75	75	

◈ Subjects will be offered on the availability of the syllabus subject to the prior approval of the Board.

Note: (i) The recognized / affiliated institutions shall offer only those subjects to the candidates for which they are affiliated.

(ii) Only one language can be taken from the approved list of languages, languages given at Sr.No.14.

(iii) Not more than two Histories can be taken from the approved list of elective subjects.

(iv) Short Question of 02-Numbers on "Dengue" will be included in the Question Papers of Biology and General Science for 9th Class students.

(v) Short Question of 02-Numbers on "Terrorism" will be included in the Question Paper of Pakistan Studies for 9th Class students.

TECHNICAL SUBJECTS

Sr.#	Subject	Part-I	Part-II	Practical
1.	Geometrical &Technical Drawing	75	75	--
2.	Electrical Wiring	40	40	70
3.	Wood Work (Furniture Making)	40	40	70
4.	Repair & Maintenance of Domestic Refrigerator & Air Conditioner	40	40	70
5.	Computer Hardware	40	40	70
6.	Poultry Farming	40	40	70
7.	Fish Farming	40	40	70
8.	Dress Making and Fashion Designing	40	40	70
9.	Beautician	40	40	70

DARS-E-NIZAMI GROUP

(Can be taken for examination with the written permission from Chairman of the Board)

Sr.#	Subject	Part-I	Part-II
1.	Urdu (In lieu Urdu, Geography of Pakistan for Foreign Students Only).	75	75
2.	English	75	75
3.	Islamiyat Compulsory /Seerat-un-Nabi خَاتَمُ النَّبِيِّنَ صَلَّى اللهُ عَلَيْهِ وَعَلَى آلِهِ وَأَصْحَابِهِ وَسَلَّمَ	50	50
4.	Translation of the Holy Quran	50	50
5.	Pakistan Studies	50	50
6.	General Mathematics	75	75
7.	General Science	75	75
8.	Al-Quran	75	75
9.	Al-Hadith (Part-I) Al-Fiqah (Part-II)	75	75
		600	600
	Total Marks:	1200	

SCHEME OF STUDIES FOR DEAF AND DUMB

Sr.#	Subject	Part-I	Part-II	Practical	Total
1.	Urdu	75	75	---	150
2.	English	75	75	---	150
3.	Pakistan Studies	50	50	---	100
4.	Islamiyat Compulsory OR Religious Education (For Non-Muslims)	50	50	---	100
5.	Translation of the Holy Quran OR Ethics (For Non-Muslims)	50	50	---	100
6.	Mathematics	75	75	---	150
7.	Elective Subject (One)	30	30	90	150
8.	Elective Subject (Two)	30	30	90	150
9.	Elective Subject (Three)	30	30	90	150
	Total Marks:				1200

اُردو (لازمی)

| 75 نمبر | پارٹ ۔ I (جماعت نہم) | وقت 2:30 گھنٹے |

حصہ معروضی

سوال نمبر 1: معروضی حصّہ کا وقت 20 منٹ ہوگا جس میں 15 سوال 15 نمبر کے ہوں گے۔ تمام سوالات حل کرنے ہوں گے۔

ہر سوال ایک نمبر کا ہوگا۔ (مذکر / مونث، واحد / جمع، مترادف / متضاد الفاظ سے متعلق کثیر الانتخاب سوالات)

| کل نمبر 60 | انشائی حصّہ | وقت:2:10 گھنٹے |

حصّہ اوّل

| 10 نمبر | سوال نمبر 2: حصّہ اوّل نظم و غزل پر مشتمل ہوگا۔ تین اشعار حصّہ نظم اور دو حصّہ غزل سے ہوں گے۔ |

حصّہ دوئم

10 نمبر	سوال نمبر 3: اقتباسات کی تشریح نیز تشریح سے پہلے حوالہ متن، خط کشیدہ الفاظ کے معانی اور سبق کا سیاق و سباق
10 نمبر	سوال نمبر 4: مختصر جوابات (کوئی سے پانچ)
05 نمبر	سوال نمبر 5: سبق کا خلاصہ
05 نمبر	سوال نمبر 6: نظم کا مرکزی خیال اور شاعر کا نام
10 نمبر	سوال نمبر 7: خط / درخواست
05 نمبر	سوال نمبر 8: کہانی / مکالمہ
05 نمبر	سوال نمبر 9: فقروں کی درستگی / تکمیل

| 75 نمبر | پارٹ ۔ II (جماعت دہم) | وقت 2:30 گھنٹے |

حصہ معروضی

سوال نمبر 1: معروضی حصّہ کا وقت 20 منٹ ہوگا جس میں 15 سوال 15 نمبر کے ہوں گے۔ تمام سوالات حل کرنے ہوں گے۔

ہر سوال ایک نمبر کا ہوگا۔

| کل نمبر 60 | انشائی حصّہ | وقت:2:10 گھنٹے |

حصّہ اوّل

| 10 نمبر | سوال نمبر 2: حصّہ اوّل نظم و غزل پر مشتمل ہوگا۔ تین اشعار حصّہ نظم اور دو حصّہ غزل سے ہوں گے۔ |

حصّہ دوئم

5+5 نمبر	سوال نمبر 3: نثر پاروں کی تشریح سبق کا عنوان، مصنف کا نام اور خط کشیدہ الفاظ کے معانی
10 نمبر	سوال نمبر 4: کوئی سے پانچ سوالوں کے مختصر جوابات
05 نمبر	سوال نمبر 5: سبق کا خلاصہ
15 نمبر	سوال نمبر 6: درج ذیل عنوانات میں سے کسی ایک پر مضمون
10 نمبر	سوال نمبر 7: درج ذیل عبارت غور سے پڑھ کر نیچے دیئے گئے سوالات کے جوابات دیں۔

کتاب:	اُردو (برائے جماعت نہم)	اُردو (برائے جماعت دہم)
مصنفین و مولفین:	پروفیسر ڈاکٹر ضیاء الحسن، پروفیسر ڈاکٹر آصف اعوان	پروفیسر ڈاکٹر رفیع الدین ہاشمی
	ڈاکٹر محمد صالح طاہر، پروفیسر محمد نعیم بزمی	صدر شعبہ اُردو (ر) جامعہ پنجاب، لاہور
	پروفیسر اسد ایوب نیازی	ڈاکٹر عبداللہ شاہ ہاشمی، سینئر ماہر مضمون اُردو (ر)
ناشر:	غلام رسول اینڈ سنز، لاہور۔	علمی کتب خانہ اُردو بازار، لاہور۔
	برائے پنجاب ٹیکسٹ بک بورڈ لاہور۔	برائے پنجاب ٹیکسٹ بک بورڈ لاہور۔

◈ --- ◈ --- ◈

اُردو قواعد و اِنشا

وقت: 2 گھنٹے	جماعت نہم و دہم	کل نمبر: 75

انشا پروازی		قواعدِ زبان
• خط لکھنے کے لیے ضروری باتیں	• خطوط نویسی	• لفظ، جملہ، کلمہ اور مہمل • مرکب اور ہم رتبہ جملے
• نمونے کے چند خطوط	• خط کے حصے، القاب و آداب	• کلمے کی قسمیں • منقوط، غیر منقوط اور بھاری حروف
• عرائض نویسی کے لیے ہدایات	• عرائض نویسی	• حروف شمسی و قمری • اسم کی قسمیں (بلحاظ معنی)
• رسید لکھنا	• نمونے کی چند درخواستیں	• اسم معرفہ، اسم معرفہ کی اقسام • اسم نکرہ، اسم نکرہ کی اقسام
• نمونے کی چند رسیدیں	• رسید لکھنے کے لوازمات	• اسم کی قسمیں (بلحاظ ساخت) • جنس اور عدد
• نمونے کے چند مکالمے	• مکالمہ نگاری	• فعل، فعل کی اقسام • افعال معاون
• نمونے کی چند کہانیاں	• کہانی لکھنا، چند ضروری باتیں	• حروف، حروف کی اقسام • مترادف اور متضاد الفاظ
• مضمون نگاری	• خاکے کی مدد سے کہانیاں لکھنا	• ذو معنی اور باہم مماثل الفاظ • رموز و قاف
• چند مضامین	• مضامین کی اقسام	• سابقے اور لاحقے • مرکبات، مرکبات کی اقسام
• تفہیم عبارت، ضروری باتیں	• مضامین کے لیے دیگر عنوانات	• "نے" اور "کو" کا استعمال • تلفظ
• مشق کے لیے عبارات	• چند عبارات، سوالات اور جوابات	• روز مرہ اور محاورہ، ضرب الامثال • علم بیان، ضائع بدائع

ایجوکیشن بورڈ کے مطابق جماعت وار عنوانات کی تقسیم

جماعت نہم	درخواست، خط، رسید، کہانی، مکالمہ، روز مرہ و محاورہ، ضرب الامثال، غلط جملوں کی درستی 'نے' اور 'کو' استعمال، فعل کی فاعل کے ساتھ مطابقت، اسم صفت اور اسم موصوف میں مطابقت، جملوں کی تکمیل، واحد جمع، مذ کر مونث، مترادف الفاظ۔
جماعت دہم	مضامین، تفہیم عبارت، تشبیہ، استعارہ، مجاز مرسل، ذو معنی اور مماثل الفاظ، تلفظ (اعراب)، صرف و نحو (اسم، فعل، حرف اور ان کی اقسام)۔

مصنفین:۔	• ڈاکٹر مس عارفہ سیدہ زہرا
	• اصغر علی شیخ
	• پروفیسر سید وقار عظیم
	• ڈاکٹر سہیل بخاری
	• مرزا ہادی علی بیگ
	• مولانا مرتضٰی حسین فاضل

تیار کردہ:۔	پنجاب کریکولم اینڈ ٹیکسٹ بک بورڈ، لاہور

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ENGLISH

Part-I (Class-IX)	**Marks: 75**	**Time: 2.30 Hours**

OBJECTIVE PART

There will be One Question consist of Four Portion. The Objective Marks will be **19** and time **20** minutes.

Q.No.1 (a): Choose the correct from verb and fill up the bubbles   **05**

(b): Choose the word with correct spellings and fill up the bubbles.   **04**

(c): Choose the correct meanings of underlined word and fill up the bubble.   **05**

(d): Choose the correct option according to the grammar and fill up the bubbles. **05**

SUBJECTIVE PART

The Total Marks of Subjective Part will be **56** and time will be **02:10** hrs.

Q.No.2 Answer any five of the following questions.   **(2×5=10)**
(66% Question From Exercises 34% From Text)

Q.No.3 Translate any two of the following paragraphs into under / Re-write into simple English. (From Text Book)   **(4+4=8)**

Q.No.4 Write down the summary of the poem. (From Text Book)   **05**
OR Explain the stanza with reference to the context.

Q.No.5 Use any five words / phrases /idioms in your sentences.   **05**

Q.No.6 Write a letter or story or dialogue.   **08**

Q.No.7 Read the passage and answer the questions at the end.   **(2×5=10)**

Q.No.8 Translate any five sentences into English.   **05**

Q.No.9 Change the voice.   **05**

Book: **English Book-I**
Authors: Ruhi Zaka Malik, Fatima Dar, Zarqa Bashir
Publisher: Punjab Text Book Board, Lahore

Part-II (Class-X)	**Marks: 75**	**Time: 2.30 Hours**

OBJECTIVE PART

There will be One Question consist of Four Portions. The Objective Marks will be **19** and time **20** minutes.

Q.No.1 (a): Choose the correct form of verb and fill up the bubbles.   **05**

(b): Choose the word with correct spellings and fill up the bubbles.   **04**

(c): Choose the correct meanings of underlined word and fill up the bubble.   **05**

(d): Choose the correct option and fill up the bubbles.   **05**

SUBJECTIVE PART

The Total Marks TO Subjective Part will be **56** and time will be **02:10** hrs.

SECTION-I

Q.No.2 Write short Answers to any five of the following questions.   **10**

SECTION-II

Q.No.3 Translate into Urdu / Re-write into simple English from English.   **08**

Q.No.4 Write down the summary of the poem.   **05**
OR Paraphrase the following lines into simple English with reference to context.

Q.No.5 Write an Essay of 150-200 words on any one of the following topics.   **15**
OR Write a paragraph of 100-150 words on any one of the following topics.

Q.No.6 Change any five of the following sentences into indirect Form.   **05**

Q.No.7 Use any five of the following pairs of words in your own Sentences.   **05**

Q.No.8 Translate from Urdu into English paragraph.   **08**
OR Write ten sentences about "A House on Fire".

Book: **English Book-II**
Authors: Sobia Kiyani
Publisher: The Caravan Book House, Lahore.
         For: Punjab Text Book Board, Lahore

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ENGLISH GRAMMAR & COMPOSITION
Vocabulary
Forms of verb
Table of Question Words, Some More Weak Verbs
Tenses
Lesson-1   Use of introductory 'it' and 'there'
Lesson-2   Use of 'is / am / are' and 'was / were'
Lesson-3   Use of 'has' and 'have', Use of Had'
Lesson-4   Present Indefinite Tense (Active Voice), Present Continuous Tense (Active Voice), Present Perfect Tense (Active Voice), Present Perfect Continuous Tense (Active Voice), Present Indefinite Tense (Passive Voice), Present Continuous Tense (Passive Voice), Present Perfect Tense (Passive Voice)
Lesson-5   Past Indefinite Tense (Active Voice), Past Continuous Tense (Active Voice), Past Perfect Tense (Active Voice), Past Perfect Continuous Tense (Active Voice), Past Indefinite Tense (Passive Voice), Past Continuous Tense (Passive Voice), Past Perfect Tense (Passive Voice)
Lesson-6   Future Indefinite Tense (Active Voice), Future Continuous Tense (Active Voice), Future Perfect Tense (Active Voice), Future Perfect Continuous Tense (Active Voice), Future Indefinite Tense (Passive Voice), Future Perfect Tense (Active Voice), Paragraphs

Parts of Speech
Direct and Indirect Speech, Pair of words

Story Writing
Introduction, Story Planner, Rubric for Story Writing, Specimen, A Farmer and His Sons, The Kindness of Rasoolullah (خَاتَمُ النَّبِيِّنَ صَلَّى اللهُ عَلَيْهِ وَعَلَى اٰلِهِ وَاَصْحَابِهِ وَسَلَّمَ), Robbers Turn into Good Citizens, The Muslim Brotherhood, A Foolish Stag, The Donkey Trapped in His Own Trick, A Friend in Need is a Friend Indeed, A Faithful Friend, A Big Reward, The Tailor and the Elephant, The Boy Who Cried "Wolf ", The Jester and the King, Exercise

Letter Writing
to your mother who is worried about your health, to your father asking him about the health of your mother, to your sister congratulating her on her success in the exams, to your mother about the test you have just taken, to your father requesting him to send you some extra funds for the payment of hostel dues, to your brother about the importance of the study of science subjects, to your friend congratulating her on her birthday, to your friend requesting her to spend her spring holidays with you, to your friend congratulating him on the marriage of his sister, to your friend requesting him to lend you some books, to your friend thanking her for the hospitality during your visit to her house, to your friend condoling the death of his mother, to your brother advising him to take steps to improve his health, to your sister thanking her for a gift, to your friend thanking him for the books he lent to you, to a bookseller requesting him to send you some books per, Formal Invitations / Replies

Applications
for leave, for fee-concession / stipend, for character certificate, for a job

Dialogue Writing
Rubric for Dialogue Writing
between a teacher and a student, between two students regarding Salat, asking one's way, between a brother and a sister concerning time, between a tailor and a customer

Paragraph Writing
My School, A Visit to Mueseum, A Pleasant Dream, An Industrial Exhabition, Kitchen

Gardening, A Hobby, Computers, Girl Guides, A River in Flood, How to Keep Our Town Clean?, My Neighbour, Pakistani Women

Exercises with Hints

A Fortune-teller, A Street Quarrel, A Visit to a Zoo, The Teacher I Like the Best, A Picnic, A Visit to a Historical Place, Allama Iqbal, A House on Fire

Writing an Essay

My Last Day at School, My House, Libraries, The Monsoon /A Rainy Day, A Hockey Match, A True Muslim, Village Life, A Visit to a Hill Station, Tolerance, Sports and Games, Courtesy, Health, A Scene at a Railway Station, A Cricket Match, Life in a Big City, Television, Quaid-e-Azam Muhammad Ali Jinnah, Boy Scouts

Essays in Outline

My Favourite Book, My Hobby, My Best Friend, My Ambition, Our School Canteen

Exercise

Topics for Grade 9

Vocabulary, Forms of Verb, Tenses (Translation), Parts of Speech ((Noun, Pronoun, Adjective, Articles, Preposition, Verb, Conjunction, Interjection, Active and Passive Voice), Story Writing, Letters, Application and Invitations, Dialogue Writing, Comprehension Passages

Topics for Grade 10

Forms of Verbs, Writing an Essay/Paragraph Writing, Tenses (Translation of Urdu Paragraphs intoEnglish), Pair of Words, Parts of Speech (Noun, Pronoun, Adjective, Articles, Preposition, Verb, Conjunction, Interjection, Direct and Indirect Speech, Pair of Words)

Authors: Prof.B.A. Chishti, Prof. Fazal-ur-Rehman Butt,
                  Abdul Qadeer Hashmi
Published by: Sheikh Shoukat Ali Printers & Publishers

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اسلامیات (لازمی)

باب اول: قرآن مجید و حدیثِ نبوی خَاتَمُ النَّبِیِّنَ صَلَّی اللّٰہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ

الف: ترجمہ قرآن مجید　　　　　**ب:** تعارفِ قرآن مجید

ج: حدیثِ نبوی خَاتَمُ النَّبِیِّنَ صَلَّی اللّٰہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ　　**د:** منتخب احادیثِ مبارکہ

باب دوم: ایمانیات و عبادات

(الف) ایمانیات: (1) عقیدۂ توحید (2) عقیدۂ رسالت (3) ملائکہ، آسمانی کتب اور آخرت پر ایمان

(ب) عبادات: (1) نماز (2) روزہ

باب سوم: سیرتِ نبوی خَاتَمُ النَّبِیِّنَ صَلَّی اللّٰہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ

(1) فتحِ مکہ (2) غزوۂ حُنین (3) عامُ الوفود (4) حضرت محمد مصطفٰی خَاتَمُ النَّبِیِّنَ صَلَّی اللّٰہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ کا بچپن اور جوانی

(5) حضرت محمد مصطفٰی خَاتَمُ النَّبِیِّنَ صَلَّی اللّٰہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ کا ذوقِ عبادت

(6) حضرت محمد مصطفٰی خَاتَمُ النَّبِیِّنَ صَلَّی اللّٰہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ کی سخاوت و ایثار

باب چہارم: اَخلاق و آداب

(1) شکر و قناعت (2) امانت و دیانت

بُری عادات سے اجتناب (1) تکبّر (2) حسد

باب پنجم: حسنِ معاملات و معاشرت

(1) قسَم کے احکام و مسائل (2) گواہی کے احکام و مسائل (3) حُقُوقُ الْعِبَاد

باب ششم: ہدایت کے سرچشمے اور مشاہیر اسلام

(1) حضرت امام زین العابدین رَحمَۃُ اللّٰہِ تَعَالٰی عَلَیْہِ (2) حضرت ابو موسٰی اشعری رَضِیَ اللّٰہُ تَعَالٰی عَنْہ

(3) حضرت عبد اللّٰہ بن عمرو بن العاص رَضِیَ اللّٰہُ تَعَالٰی عَنْھُمَا (4) حضرت عَمر بن اُمیّہ رَضِیَ اللّٰہُ تَعَالٰی عَنْہ

(5) صحابیات رَضِیَ اللّٰہُ تَعَالٰی عَنْھُنَّ (6) صوفیاء کرام رَحمَۃُ اللّٰہِ تَعَالٰی عَلَیْھِمْ

(7) علماء و مفکرین رَحمَۃُ اللّٰہِ تَعَالٰی عَلَیْھِمْ

باب ہفتم: اسلامی تعلیمات اور عصرِ حاضر کے تقاضے

(1) خود اعتمادی و خود انحصاری (2) جسمانی و ذہنی صحت اور جسمانی ریاضت

باب اول: قرآن مجید و حدیثِ نبوی خَاتَمُ النَّبِیِّنَ صَلَّی اللّٰہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ

الف: ترجمہ قرآن مجید　　**ب:** حفاظت و تدوینِ حدیث (دورِ اول)　　**ج:** احادیثِ نبویہ خَاتَمُ النَّبِیِّنَ صَلَّی اللّٰہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ

باب دوم: ایمانیات و عبادات

(الف) ایمانیات: (1) ملائکہ (2) کتب سماویہ (آسمانی کتابیں) (3) عقیدۂ آخرت

</div>

(ب) عبادات: (1) زکوۃ (2) حج اور قربانی

باب سوم: سیرتِ نبوی خَاتَمُ النَّبِیِّنَ صَلَّی اللهُ عَلَیْهِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ

(الف) عہد نبوی (خَاتَمُ النَّبِیِّنَ صَلَّی اللهُ عَلَیْهِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ) کے ماہ وسال (مدنی دور):

نبی کریم (خَاتَمُ النَّبِیِّنَ صَلَّی اللهُ عَلَیْهِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ) بطور معاشرتی مصلح

(1) غزوۂ تبوک (2) حجۃ الوداع (3) وصال نبوی (خَاتَمُ النَّبِیِّنَ صَلَّی اللهُ عَلَیْهِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ)

(ب) اُسوۂ رسول (خَاتَمُ النَّبِیِّنَ صَلَّی اللهُ عَلَیْهِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ) اور ہماری زندگی:

نبی کریم (خَاتَمُ النَّبِیِّنَ صَلَّی اللهُ عَلَیْهِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ) بطور سرچشمہ ہدایت

(1) صلہ رحمی (2) خواتین کے ساتھ حسن سلوک (3) انداز تربیت

باب چہارم: اَخلاق و آداب

(1) اخلاص و تقویٰ (2) پردہ پوشی (3) جھوٹ (4) غیبت اور بہتان (5) جادُو، فال اور توہم پرستی

باب پنجم: حسن معاشرت و معاملات

(1) سُود کی حرمت (2) اسلامی ریاست (3) جہاد فی سبیل اللہ

باب ششم: ہدایت کے سرچشمے اور مشاہیر اسلام

(1) حضرت امام زید بن علی رَحْمَۃُ اللهِ تَعَالٰی عَلَیْہِ (2) حضرت عمرو بن العاص رَضِیَ اللهُ تَعَالٰی عَنْهُمَا

(3) حضرت جابر بن عبد اللہ رَضِیَ اللهُ تَعَالٰی عَنْهُمَا (4) حضرت انس بن مالک رَضِیَ اللهُ تَعَالٰی عَنْه

(5) صحابیات رَضِیَ اللهُ تَعَالٰی عَنْهُنَّ (6) صوفیاء کرام رَحْمَۃُ اللهِ تَعَالٰی عَلَیْهِمْ

(7) علماء و مفکرین رَحْمَۃُ اللهِ تَعَالٰی عَلَیْهِمْ

باب ہفتم: اسلامی تعلیمات اور عصر حاضر کے تقاضے

(1) خود اعتمادی و خود انحصاری (2) جسمانی و ذہنی صحت اور جسمانی ریاضت

کتاب:	اسلامیات (لازمی) برائے جماعت نہم	اسلامیات (لازمی) برائے جماعت دہم
ناشر:	میاں عبد اللہ آرٹ پریس	شہزاد پبلیشرز، لاہور۔
پبلشر:	قدرت اللہ پرنٹر لاہور	مطبع: نقوی برادرز پرنٹنگ پریس، لاہور۔

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اخلاقیات

کل نمبر: **50**	پارٹ۔I (جماعت نہم)	وقت: **02:00** گھنٹے

باب نمبر **1**۔ مذاہب کا تعارف	• مذہب کی ذاتی اور نفسیاتی اہمیت	• مذہب، سماج اور اخلاق
باب نمبر **2**۔ جین مت	• تعارف اور ارتقا	• جین مت کا ادب اور فن تعمیر
باب نمبر **3**۔ اخلاق واقدار	• خدا کی عظمت	• عبادت گاہوں اور عبادات کے انسانی رویوں پر اثرات
	• سناتن ہندو دھرم اور عبادت	• بدھ مت اور عبادت	• زرتُشت اور عبادت
	• مسیحیت اور عبادت	• اسلام اور عبادت	• سکھ مذہت اور عبادت
باب نمبر **4**۔ آداب	• عبادت گاہوں کے آداب (مندر، وہارہ، سینا گاگ، گر جاگھر، مسجد اور گورودوارہ)	
	• عوامی مقامات کے آداب (دفاتر، بینک، ہسپتال، پارک)	
باب نمبر **5**۔ مشاہیر	• امام غزالی رَحِمَہُ اللہِ تَعَالٰی عَلَیہِم	• فلورنس نائٹ انگیل

فرہنگ

تیار کردہ:۔ پنجاب کریکولم اینڈ ٹیکسٹ بک بورڈ، لاہور	ڈاکٹر عبداللہ شاہ ہاشمی ڈاکٹر محمد شفیع مرزا	مصنفین:۔

کل نمبر: **50**	پارٹ۔II (جماعت دہم)	وقت: **02:00** گھنٹے

باب نمبر **1**۔ مذاہب کا تعارف	• مشکلات کے حل میں مذاہب کی رہنمائی	• گناہ اور جرم کا تصور
باب نمبر **2**۔ مہاویر	• حالات زندگی	• مہاویر کے ہم عصر مذہبی راہنما	• مہاویر کی تعلیمات
باب نمبر **3**۔ اخلاق واقدار	• عبادت کے انسانی زندگی پر اثرات (مذاہب عالمی کی روشنی میں)	• عالمی مذاہب میں اخلاقی اقدار
	• انسانی کردار سازی پر احتساب کے اثرات	• مذہبی تعلیمات میں پابندی وقت کی اہمیت
باب نمبر **4**۔ عوامی مقامات کے آداب	• ریلوے اسٹیشن	• بس اسٹینڈ	• ہوائی اڈا
	• بازار (مارکیٹ)	
باب نمبر **5**۔ مشاہیر	• فلاسفر ارسطو	• عمان ویل کانٹ	• سری اربندوگھوش

فرہنگ

ڈاکٹر عبداللہ شاہ ہاشمی ڈاکٹر محمد شفیع مرزا	مصنفین:۔
پنجاب کریکولم اینڈ ٹیکسٹ بک بورڈ، لاہور	تیار کردہ:۔

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PAKISTAN STUDIES

Marks: 50	Part-I (Class-IX)	Time: 2.00 Hours

Chapter 1   IDEOLOGICAL BASIS OF PAKISTAN
Definition, Sources and Sigificance of Ideology

1.1   Ideology
1.2   Sources of Ideology
Common Religion, Common Political Objectives, Common Educational Objectives, Common Economic Objectives, Common Cultural Objectives
1.3   Importance of Ideology
1.4   Meanings of the Ideology of Pakistan
1.5   Islamic Values
1.6   Muslim Reformers
1.7   Social and Cultural Conditions of the Muslims of the Subcontinent
1.8   Islamic state and the Rights or Minorities
1.9   Awareness about Ideology of Pakistan
1.10   Elements of Ideology of Pakistan
Beliefs, Pilers of Islam, Rule of Law, Equality and Brotherhood, Justice and Equality
1.11   Two-Nation Theory: Origin and Evolution
Two-Nation Theory in the Subcontinent, Sir Syed Ahmad Khan and Two-Nation Theory, Ch. Rahmat Ali and Two-Nation Theory
1.12   Economic Deprivation of Muslims in India
1.13   Allama Muhammad Iqbal and Ideology of Pakistan
1.14   Quaid-e-Azam and Ideology of Pakistan

Chapter 2   THE PAKISTAN MOVEMENT AND ENERGENCE OF PAKISTAN

2.1   Background of Pakistan Movement
2.2   Aligarh Movement and Sir Syed Ahmed Khan
2.3   Partition of Bengal 1905
2.4   Simla Deputation 1906
2.5   Establishment of Muslim League 1906
2.6   Minto-Morley Reforms 1909
2.7   Lucknow Pact 1916
2.8   Khilafat Movement 1919
2.9   Non-Cooperation Movement 1920
2.10   Hijrat Movement 1920
2.11   Nehru Report 1928
2.12   Fourteen Points of Quaid-e-Azam 1929
2.13   Allama Iqbal's Allahabad Address 1930
2.14   Act of 1935 and the Provincial Autonomy
2.15   Lahore Resolution 1940
2.16   Cripps Mission 1942
2.17   Simla Conference and Elections
2.18   Cabinet Mission Plan 1946
2.19   Direct Action Day
2.20   Interim Government
2.21   3rd June 1947 Plan
2.22   Indian Independence Bill. 1947
2.23   Radcliffe Award
2.24   Dawn of Freedom
2.25   Role of Quaid-e-Azam Muhammad Ali Jinnah in the making of Pakistan with reference to his political and constitutional efforts

Mountain Ranges, Northern mountain Ranges, North Western Mountain Range, Western Mountain Ranges, Plain areas, Coastal Plains, Deserts, Plateaus, Pothowar Plateau, Balochistan Plateau

3.3 Climatic of Pakistan
Sub-Tropical Continental Highland, Sub-Tropical Continental Plateau, Sub-Tropical Continental Lowland, Tropical Coastalland

3.4 Impact of Climate on Human Life

3.5 Major Glaciers and Rivers of Pakistan
Siachen Glacier, Baltoro Glacier, Batora Glacier, Biafo Glacier, Hisper Glacier

3.6 Importance of glaciers

3.7 Rivers of Pakistan
Indus River and its Tributaries, Indus River and its Eastern Tributaries, Ravi River, Sutlej River, Chenab Riveriv. Jhelum River, Indus River and its Western Tributaries, The Rivers of Balochistan falling into Arabian Sea

3.8 Canals of Pakistan
Flood Canals, Perennial Canals, Non-Perennial Canals, Link Canals, Forests

3.10 Importance of Forests

3.11 Wildlife in Pakistan

3.12 Natural Regions of Pakistan
Plain Region, Desert Region, Coastal Region, Arid and Semi Arid, Mountain Region, Semi Arid Mountain Region, Humid and Sub Humid Mountain Region, Sub Humid Mountain Region

3.13 Major Environmental Hazards and their Remedies
Pollution, Air Pollution, Water Pollution, Land Pollution, Deforestation, Desertification, Salinity and Water Logging

3.14 Problems associated with the conservation strategies for water, land, natural vegetation and wildlife
Water, Land, Vegetation, Wildlife

Chapter 4 WOMEN'S EMPOWERMENT

4.1 Women's Rights in Islam in the light of Quran and Sunnah

4.2 Violence Impacts upon Pakistan's Society with reference to Constitutional Provisions

4.3 Ideas about Violence against Women, Mythii- Facts

4.4 Government's efforts to address the issue of Violence against Women in Pakistan Punjab Marriage Restraint Act, 2015

4.5 Women's Contribution in National Development from 1947 till now

4.6 Definition of Violence and Violence against Women

4.7 Punjab Protection of Women against Violence Act, 2016

4.8 Government's Efforts regarding Women's Protection and Women's Empowerment

Prescribed Book: **Pakistan Studies for Part – I (Class –IX)**
Authors: Dr. Ali Iqtadar Mirza , Syed Abbas Haider, M. Hussain Choudhry
Published by: Atiya Publishing House, Urdu Bazar, Lahore

Marks: 50	Part-II (Class-X)	Time: 2.00 Hours

Chapter 5 HISTORY OF PAKISTAN 1971 TILL NOW

5.1 Zulfiqar Ali Bhutto's Era 1971-1977: Industrial Reforms, Agricultural Ref Educational Reforms, Health Reforms, Economic Reforms, Social Refo

Relations with Turkey, Pakistan's Relations with Libya, Egypt and Syria, Pakistan's Relations with Palestine, Pakistan and other Muslim Countries

6.7 Pakistan's Relations with SAARC Countries
Pakistan and India, Pakistan and Bangladesh, Pakistan and Sri Lanka, Pakistan and Nepal, Pakistan and Republic of Maldives, Pakistan and Bhutan, Pakistan and Afghanistan

6.8 Pakistan's Relations with major world powers
United States of America, Russia, Great Britain, Japan, European Union

6.9 China-Pakistan Economic Corridor (CPEC)

6.10 Pakistan's Contribution towards Peace Keeping in the World

Chapter 7 ECONOMIC DEVELOPMENT OF PAKISTAN

7.1 Economics Developments of Pakistan
Economic Development at a Glance

7.2 Economic Development in Pakistan through Decades
First Decade: From establishment of Pakistan to 1958, Second Decade: From1958 to1968,
Third Decade: From 1968 to 1978, Fourth Decade: From 1978 to 1988, Fifth Decade: From 1988 to 1998, Sixth Decade: From 1998 to 2008, Seventh Decade: From 2008 to 2018

7.3 Labour Force

7.4 Major Metallic and Non-metallic Mineral Resources of Pakistan their Economic
Importance and Distribution in Pakistan, Metallic Minerals, Iron, Copper and Gold, Manganese, Bauxite & Chromite, Non-metallic Minerals, Coal, Gypsum, Rock Salt, Marble, Lime Stone, Sulphur, China Clay, Importance of Mineral Sector

7.5 Importance of Agriculture, Problems and Efforts to Modernize Agriculture

7.6 Problems of Agriculture
Shortage of Water and Inefficient Irrigation System, Uneven Fields, Costly Fertilizer, Seed and Pesticide etc, Inadequate Access to Global Markets, Inheritance Law, No Increase in Cultivated Land, Illiteracy in Farmers, Water Logging and Salinity Problems, Insufficient Storage Facilities, Decrease in Productivity of Land due to Continuous Cultivation, Lack of Soil and Water Analysis Practice among farmers, Lack of Coordination between Farmers and Related Departments, Crop Diseases, Floods and other Natural Calamities, Inadequate Credit Facilities,

7.7 Modernization in Agriculture of Pakistan

7.8 Financial measures taken by the government to increase agricultural production

7.9 Water Resources of Pakistan and Existing Irrigation System
Rainfall, Canals (perennial Canals, Non-Perennial Canals, Flood Canals), TubeWell, Karez

7.10 Indus Water Treaty

7.11 Barrages and Canals on River Indus and its Eastern Tributaries
Jinnah Barrage, Chashma Barrage, Tounsa Barrage, Guddu Barrage, Sukkur Barrage, Kotri Barrage

7.12 Dam, Barrages and Canals on River Jhelum
Mangla Dam, Rasul Barrage

7.13 Barrages and Canals on River Chenab

Subjects)

8.6   Suggestions for Solving Educational Problems

8.7   Health Conditions in Pakistan
Problems in the Health Sector

8.8   Importance of Tourism and Natural and Cultural Attraction for Tourism in Pakistan
Introduction, Pakistan's Tourist Destinations, International Views on Pakistan's Tourism Sector, Performance of Pakistan's Tourism Sector, Measures Taken by the Government to Promote Tourism, Responsibilities of the Pakistani People for the Promotion of Tourism

8.9   Need and Importance of Interfaith Harmony, Tolerance and Resilience against Terrorism

8.10   Commonality in Regional Cultures Leading to National Integration and Cohesion

8.11   Origin and Evolution of National and Regional Languages

8.12   Regional Languages
Punjabi, Sindhi Language, Pashto Language, Balochi Language, Kashmiri Language, Saraiki Language, Shina, Balti, Wakhi and Burushaski Languages, Brahui Language, Pahari or Hindko Language, Gojri Language

8.13   Causes, Consequences and Remedies for Poverty Alleviation in Pakistan

8.14   Contribution and Achievements of Minorities in Nation Building

Prescribed Book: **Pakistan Studies for Part – II (Class –X)**
Authors: M. Hussain Choudhry , Al-Haaj Prof. M. Rasheed
                   Prof. Anjum Jamespaul
Published by: Kamran Publications, Lahore

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تَرْجَمَةُ الْقُرْآنِ الْمَجِيْدِ

کل نمبر:50	پارٹ-I (جماعت نہم)	وقت:02:00 گھنٹے

فہرستِ عنوانات

کل نمبر:50	پارٹ-II (جماعت دہم)	وقت:02:00 گھنٹے

فہرستِ عنوانات

تَرْجَمَةُ الْقُرْآنِ الْمَجِيْدِ (برائے جماعت دہم)	تَرْجَمَةُ الْقُرْآنِ الْمَجِيْدِ (برائے جماعت نہم)	درسی کتب کا نام:
ڈاکٹر فخر الزمان، محمد صفدر جاوید	ڈاکٹر سعید احمد سعیدی ، حافظ غلام یاسین	مصنفین:
پنجاب کریکولم اینڈ ٹیکسٹ بک بورڈ، لاہور	علی برادران پبلشرز اینڈ پرنٹرز، لاہور	تیار کردہ:

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GEOGRAPHY OF PAKISTAN
(For foreign students and other special cases in lieu of Urdu Compulsory)

Part – I	75 Marks
Part – II	75 Marks
Total	**150 Marks**

Part-I (Class-IX)	Marks: 75	Time: 2:30 Hours

SYLLABUS	SECTION I – INTRODUCTION	WEIGHT
1. The Creation of Pakistan	Neighbors, Administrative Divisions and Emergence of Pakistan	06%
	SECTION II – ENVIRONMENT	
2. Land form	Mountains, Plateaus, Plains, Deserts, and Rivers, Physiographic decisions.	08%
3. Climate	Factors affecting Climate of Pakistan Temperature, Rainfall and Climate Regions.	08%
4. Natural Vegetation	Types and distribution, Importance, deforestation and afforestation.	
5. Soils	Soil formation, soil types.	05%
6. Environmental Problems	Floods, Landslides, erosion, aridity, earthquake and pollution.	06%
	SECTION III – PROFIT	
7. Population	Size, Growth, Urbanization, Distribution of rural population, Occupation, Employment and population problems.	07%
8. Cities and Villages	Geographical characteristics of Pakistani villages and cities, function and importance of Islamabad, Karachi, Lahore, Peshawar and Quetta.	

Part-II (Class-X)	Marks: 75	Time: 2:30 Hours

SYLLABUS	SECTION IV – ECONOMY	WEIGHT
9. Resource Natural and Human	Definition and importance, Natural, Land, Water, Minerals, Energy, Forests etc, Human: Age composition, level of education, skilled, semi-skilled and unskilled resources.	08%
10. Agriculture, Irrigation and related	Importance of Irrigation, Modes of irrigation, canals, karez, wells, and Indus Water Treaty, water logging and salinity.	07%
11. Agriculture, Crops and Livestock	Methods and cultivation, traditional recent changing trends, Agricultural Land use, Wheat, Rice Maize, Sugarcane and Cotton, Livestock.	10%
12. Industry	Factors for location of industries, Factory Industries, iron and Steel, ship building, cotton textile, woolen Sugar, Chemical and Cement.	09%
13. Means of transport	Transport importance, Railways, Roads, Airways, Sea Ports.	08%
14. Trade	Importance internal and external trade, Exports and Imports.	08%

Prescribed Book: **Grogrpahy of Pakistan**
Authors: Mian Muhammad Aslam
Published by: M/S Maktaba Moeen-Ul-Adab Urdu Bazar, Lahore
                For: Punjab Text Book Board, Lahore

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PHYSICS

Part – I	60 Marks
Part – II	60 Marks
Practical	30 Marks
Total	**150 Marks**

Part-I (Class-IX)	**Marks: 60**	**Time: 2:00 Hours**

UNIT-1 :   PHYSICAL QUANTITIES AND MEASUREMENT
- 1.1   Introduction to Physics
- 1.2   Physical quantities
- 1.3   International System of Units
- 1.4   Prefixes (multiples and sub-multiples)
- 1.5   Scientific notation / Standard form
- 1.6   Measuring Instruments

1.1.1 Metre Rule	1.1.2 Vernier Calipers
1.1.3 Screw Gauge	1.1.4 Physical Balance
1.1.5 Stopwatch	1.1.6 Measuring Cylinder

- 1.7   Significant Figures

UNIT-2 :   KINEMATICS
- 2.1   Rest and Motion
- 2.2   Types of Motion
  - 2.2.1   Translatory Motion (Linear Motion, Circular Motion, Random Motion)

2.2.2 Rotatory Motion	2.2.3 Vibratory Motion

- 2.3   Scalars and Vectors

2.3.1 Scalars	2.3.2 Vectors
2.3.3 Representation of Vectors	

- 2.4   Terms Associated with Motion

2.4.1 Position	2.4.2 Distance and Displacement
2.4.3 Speed and Velocity	2.4.4 Acceleration

- 2.5   Graphical Analysis of Motion

2.5.1 Distance-Time Graph	2.5.2 Speed-Time Graph

- 2.6   Equations of Motion
- 2.7   Motion of Freely Falling Bodies

Unit-3 :   DYNAMICS
- 3.1   Force, Inertia and Momentum
- 3.2   Newton's Laws of Motion
- 3.3   Friction
- 3.4   Uniform Circular Motion

Unit-4 :   TURNING EFFECT OF FORCES
- 4.1   Like and Unlike Parallel Force
- 4.2   Addition of Forces
- 4.3   Resolution of Forces
- 4.4   Torque or Moment of a Force
- 4.5   Principle of Moments
- 4.6   Centre of Mass and Centre of Gravity
- 4.7   Couple
- 4.8   Equilibrium
- 4.9   Stability and Position of Centre of Mass

Unit-5 :   GRAVITATION
- 5.1   Force of Gravitation
- 5.2   Mass of Earth
- 5.3   Variation of 'g' with Altitude

5.4   Artificial Satellites

Unit-6 :   **WORK AND ENERGY**

6.1   Work

6.2   Energy

6.3   Kinetic Energy

6.4   Potential Energy

6.5   Forms of Energy

     6.5.1 Mechanical Energy   6.5.2 Heat Energy

     6.5.3 Electrical Energy   6.5.4 Sound Energy

     6.5.5 Light Energy   6.5.6 Chemical Energy

     6.5.7 Nuclear Energy

6.6   Interconversion of Energy

6.7   Major Sources of Energy

     6.7.1 Fossil Fuels   6.7.2 Nuclear Fuels

     6.7.3 Renewable Energy Sources

         (Energy from Water, Sun, Wind, Geothermal and Biomass)

6.8   Efficiency

6.9   Power

Unit-7 :   **PROPERTIES OF MATTER**

7.1   Kinetic Molecular Model of Matter

     7.1.1 Solids   7.1.2 Liquids

     7.1.3 Gases

7.2   Density

7.3   Pressure

7.4   Atmospheric Pressure

7.5   Pressure in Liquids

7.6   Archimedes Principle

7.7   Principle of Floatation

7.8   Elasticity

7.9   Hooke's Law

Unit-8 :   **THERMAL PROPERTIES OF MATTER**

8.1   Temperature and Heat

8.2   Thermometer

8.3   Specific Heat Capacity

8.4   Change of State

8.5   Latent Heat of Fusion

8.6   Latent Heat of Vaporization

8.7   The Evaporation

8.8   Thermal Expansion

Unit-9 :   **TRANSFER OF HEAT**

9.1   Transfer of Heat

9.2   Conduction

9.3   Convection

9.4   Radiation

9.5   Applications and Consequences of Radiation

Prescribed Book: Physics for Part – I (Class –IX)
Authors: Prof.Tahir Hassan , Prof.Muhammad Naeem Anwar
Published by: The Carvan Book House, Lahore
              For: Punjab Text Book Board, Lahore

Part-II (Class-X)   **Marks: 60**   **Time: 2:00 Hours**

Unit-10 :   **SIMPLE HARMONIC MOTION AND WAVES**
- 10.1   Simple Harmonic Motion
  - 10.1.1 Motion of Mass Attached to a Spring
  - 10.1.2 Ball and Bowl System   10.1.3 Motion of a Simple Pendulum
- 10.2   Damped Oscillations
- 10.3   Wave Motion
- 10.4   Types of Mechanical Waves
- 10.5   Waves As Carriers of Energy
- 10.6   Ripple Tank

Unit-11 :   **SOUND**
- 11.1   Sound Waves
- 11.2   Characteristics of Sound
- 11.3   Reflection of Sound
- 11.4   Speed of Sound
- 11.5   Noise Pollution
- 11.6   Audible Frequency Range
- 11.7   Ultrasound

Unit-12 :   **GEOMETRICAL OPTICS**
- 12.1   Reflection of Light
  - 12.1.1 Laws of Reflection   12.1.2 Types of Reflection
- 12.2   Spherical Mirrors
- 12.3   Image Location by Spherical Mirror Formula
- 12.4   Refraction of Light
- 12.5   Total Internal Reflection
- 12.6   Refraction Through Prism
- 12.7   Lenses
- 12.8   Refraction Through Lenses
- 12.9   Formation of Image by Lens Equation
- 12.10   Applications of Lenses
- 12.11   Simple Microscope
- 12.12   Compound Microscope
- 12.13   Telescope
- 12.14   The Human Eye
- 12.15   Defects of Vision

Unit-13 :   **ELECTROSTATICS**
- 13.1   Production of Electric Charges
- 13.2   Electrostatic Induction
- 13.3   Electroscope
- 13.4   Coulomb's Law
- 13.5   Electric Field and Electric Field Intensity
- 13.6   Electrostatic Potential
- 13.7   Capacitors and Capacitance
- 13.8   Different Types of Capacitors
- 13.9   Applications of Electrostatics
- 13.10   Some Hazards of Static Electricity

Unit-14 :   **CURRENT ELECTRICITY**
- 14.1   Electric Current
- 14.2   Potential Difference
- 14.3   Electromotive Force (e.m.f)
- 14.4   Ohm's Law
- 14.5   V-I Characteristics of Ohmic and Non Ohmic Conductors
- 14.6   Specific Resistance (Resistivity)

14.7   Conductors
14.8   Insulators
14.9   Combination of Resistors
14.10   Electrical Energy and Joule's Law
14.11   Electric Power
14.12   Direct Current and Alternating Current
14.13   Hazards of Electricity
14.14   Safe Use of Electricity in Homes

Unit-15 :   **ELECTROMAGNETISM**
15.1   Magnetic Effects of a Steady Current
15.2   Force on a Current – Carrying Conductor Placed in a Magnetic field
15.3   Turning Effect on a Current-Carrying Coil in a Magnetic Field
15.4   D.C. Motor
15.5   Electromagnetic Induction
15.6   Direction of Induced e.m.f. – Lenz's Law
15.7   A.C. Generator
15.8   Mutual Induction
15.9   Transformer
15.10   High Voltage Transmission

Unit-16 :   **BASIC ELECTRONICS**
16.1   Thermionic Emission
16.2   Investigating the Properties of Electrons
16.3   Cathode-Ray Oscilloscope (C.R.O)
16.4   Analogue and Digital Electronics
16.5   Basic Operations of Digital Electronics-Logic Gates
16.6   AND Operation
16.7   OR Operation
16.8   NOT Operation
16.9   NAND Gate
16.10   NOR Gate
16.11   Uses of Logic Gates

Unit-17 :   **INFORMATION AND COMMUNICATION TECHNOLOGY**
17.1   Information and Communication Technology
17.2   Components of Computer Based Information System (CBIS)
17.3   Flow of Information
17.4   Transmission of Electrical Signal Through Wires
17.5   Transmissions of Radio waves Through Space
17.6   Transmission of Light Signals Through Optical Fibers
17.7   Information Storage Devices

— Primary Memory   — Secondary Storage Devices
— Audio and Video Cassettes   — Magnetic Disks
— Hard Disk   — Compact Disc (CDs)
— Flash Drive   — Application of Computer
— Data Management   — Internet Services
— Browsers   — How to Search the Web
— Electronic Mail

Unit-18 :   **ATOMIC AND NUCLEAR PHYSICS**
18.1   Atom and Atomic Nucleus
18.2   Natural Radioactivity
18.3   Background Radiations
18.4   Nuclear Transmutations
18.5   Half-Life and Its Measurement
18.6   Radioisotopes and their Uses

18.7   Fission Reaction
18.8   Nuclear Fusion
18.9   Hazards of Radiation and Safety Measures

LIST OF PRACTICALS FOR CLASS-IX (PART-I)

1.   Measure the area of cross-section of a solid cylinder by measuring its diameter with Vernier calipers.
2.   Determine the volume of a solid cylinder by measuring its length and diameter.
3.   Measure the thickness of a metal strip or a wire by using a screw gauge.
4.   Find the acceleration of a ball rolling down an inclined angle iron by drawing a graph between 2S and t^2.
5.   Find the value of 'g' by free fall method.
6.   Investigate the relation between force of limiting friction and normal reaction to find the co-efficient of sliding friction between a wooden block and horizontal surface.
7.   Find the force of limiting friction by rolling a roller on a horizontal surface.
8.   Determine the value of 'g' by Atwood's machine.
9.   Determine the resultant of two forces graphically by using a Horizontal force table.
10. Find the unknown weight of an object by using vector addition of forces.
11. Verify the principle of moments by using a metre rod balanced on a wedge.
12. Find the unknown weight of an object by using principle of moments.
13. Find the tension in the strings by balancing a metre rod on the stands.
14. Study the effect of length of simple pendulum on its time period and hence, find the value of 'g' by calculation.
15. Prove that time period of a simple pendulum is independent of mass of the pendulum.
16. Prove that time period of a simple pendulum is independent of amplitude of vibration.
17. Determine the relationship between load and extension (Helical spring) by drawing a graph.
18. Find the density of a body heavier than water by Archimedes principle.
19. Find the density of a liquid using a disposable syringe.
20. Find the specific heat of a given solid by the method of mixture using polystyrene cup.
21. Draw a graph between temperature and time when ice is converted into water and then to steam by slow heating.
22. Find the latent heat of fusion of ice.

LIST OF PRACTICALS FOR CLASS-X (PART-II)

1.   Verify the laws of refraction by using a glass slab.
2.   Find the refractive index of water by using concave mirror.
3.   Determine the critical angle of glass using a semi-circular glass slab and a light ray box or by prism.
4.   Trace the path of a ray of light through a glass prism and measure the angle of deviation.
5.   Find the focal length of a convex lens by parallax method.
6.   Set up a microscope.
7.   Set up a telescope.
8.   Verify Ohm's law (using wire as conductor).
9.   Study resistors in series circuit.
10. Study resistors in parallel circuit.
11. Find the resistance of galvanometer by half deflection method.
12. Trace the magnetic field using a bar magnet.
13. Trace the magnetic field due to a current carrying circular coil.
14. Verify the truth table of OR, AND, NOT, NOR and NAND gates.
15. Set up a NAND gate burglar Alarm.
16. Set up a NOT gate Fire Alarm.

Prescribed Book: Physics for Part – II (Class –X)
Authors: Dr. Azmat Iqbal , Dr. Ghulam Murtaza
Published by: Malik Siraj-ud-Din & Sons Lower Mall, Lahore
                  For: Punjab Text Book Board, Lahore

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CHEMISTRY

Part – I	60 Marks
Part – II	60 Marks
Practical	30 Marks
Total	**150 Marks**

Part-I (Class-IX)	**Marks: 60**	**Time: 2:00 Hours**

Unit-1 :   FUNDAMENTALS OF CHEMISTRY
   1.1 Branches of Chemistry
      1.1.1 Physical Chemistry   1.1.2 Organic Chemistry
      1.1.3 Inorganic Chemistry   1.1.4 Biochemistry
      1.1.5 Industrial Chemistry   1.1.6 Nuclear Chemistry
      1.1.7 Environmental Chemistry   1.1.8 Analytical Chemistry
   1.2 Basic Definitions
      1.2.1 Elements, Compounds and Mixture
      1.2.2 Atomic Number and Mass Number
      1.2.3 Relative Atomic Mass and Atomic Mass Unit
      1.2.4 How to write a Chemical Formula(Empirical and Molecular Formula)
      1.2.5 Molecular Mass and Formula Mass
   1.3 Chemical Species
      1.3.1 Ions (Cations and Anions, Molecular Ions   and Free Radicals)
      1.3.2 Types of Molecules
   1.4 Gram Atomic Mass, Gram Molecular Mass and Gram Formula Mass
      1.4.1 Gram Atomic Mass   1.4.2 Gram Molecular Mass
      1.4.3 Gram Formula Mass
   1.5 Avogadro's number and Mole
      1.5.1 Avogadro's Number   1.5.2 Mole (Chemist Secret Unit)
   1.6 Chemical Calculations
      1.6.1 Mole-Mass Calculations   1.6.2 Mole-Particle Calculations
Unit-2 :   STRUCTURE OF ATOMS
   2.1 Theories and Experiments Related Structure of Atom
      2.1.1 Rutherford's Atomic Model   2.1.2 Bohr's Atomic Theory
   2.2 Electronic Configuration (Electronic Configuration of First 18 Elements)
   2.3 Isotopes
      2.3.1 Definition   2.3.2 Examples
      2.3.3 Uses
Unit-3 :   PERIODIC TABLE AND PERIODICITY OF PROPERTIES
   3.1 Periodic Table
      3.1.1 Periods   3.1.2 Groups
   3.2 Periodicity of Properties
      3.2.1 Atomic Size and Atomic Radius   3.2.2 Shielding Effect
      3.2.3 Ionization Energy   3.2.4 Electron Affinity
      3.2.5 Electronegativity
Unit-4 :   STRUCTURE OF MOLECULES
   4.1 Why do Atoms form Chemical Bonds?
   4.2 Chemical Bonds
   4.3 Types of Chemical Bonds
      4.3.1 Ionic Bond   4.3.2 Covalent Bond
      4.3.3 Dative Covalent or Coordinate Covalent Bond
      4.3.4 Polar and Non-Polar Covalent Bond
      4.3.5 Metallic Bond
   4.4 Intermolecular Forces
      4.4.1 Dipole – Dipole Interaction 4.4.2 Hydrogen Bonding

4.5 Nature of Bonding and Properties
    4.5.1 Ionic Compounds   4.5.2 Covalent Compounds
    4.5.3 Coordinate Covalent Compounds   4.5.4 Metals

Unit-5 :   **PHYSICAL STATES OF MATTER**
5.1 Typical Properties of Gaseous State
    5.1.1 Diffusion   5.1.2 Effusion
    5.1.3 Pressure   5.1.4 Compressibility
    5.1.5 Mobility   5.1.6 Density of Gases
5.2 Laws Related to Gases
    5.2.1 Boyle's Law   5.2.2 Charles's Law
5.3 Typical Properties of Liquid State
    5.3.1 Evaporation   5.3.2 Vapour Pressure
    5.3.3 Boiling Point   5.3.4 Freezing Point
    5.3.5 Diffusion   5.3.6 Density
5.4 Typical Properties of Slid State
    5.4.1 Melting Point   5.4.2 Rigidity
    5.4.3 Density
5.5 Types of Solids
    5.5.1 Amorphous Solids   5.5.2 Crystalline Solids
5.6 Allotropy

Unit:6 :   **SOLUTIONS**
6.1 Solution
    6.1.1 Aqueous Solution   6.1.2 Solute
    6.1.3 Solvent
6.2 Saturated Solution
    6.2.1 Unsaturated Solution   6.2.2 Supersaturated Solution
    6.2.3 Dilution of Solution
6.3 Types of Solution
6.4 Concentration Units
    6.4.1 Percentage   6.4.2 Molarity
    6.4.3 Problems Involving the Molarity of a Solution
6.5 Solubility
    6.5.1 Solubility and Solute-Solvent Interaction
    6.5.2 Effect of Temperature on Solubility
6.6 Comparison of Solution, Suspension and Colloid
    6.6.1 Solution   6.6.2 Colloid
    6.6.3 Suspension

Unit-7 :   **ELECTROCHEMISTRY**
7.1 Oxidation and Reduction Reactions
7.2 Oxidation state and Rules for assigning Oxidation state
7.3 Oxidizing and Reducing Agents
7.4 Oxidation Reduction Reactions
7.5 Electrochemical Cells
    7.5.1 Concept of Electrolytes
        (Strong Electrolytes, Weak Electrolytes, Non-Electrolytes)
    7.5.2 Electrolytic Cells (Construction of an Electrolytic Cell, Working of an Electrolytic Cell, Electrolysis of Water)
    7.5.3 Galvanic Cell (Construction of a Daniel Cell, Working of the Cell)
7.6 Electrochemical Industries
    7.6.1 Manufacture of Sodium Metal from Fused NaCl
        (Working of Downs Cell)
    7.6.2 Manufacture of NaOH from Brine
7.7 Corrosion and its Prevention
    7.7.1 Rusting of Iron

7.7.2 Prevention of Corrosion
(Removal of Stains, Paints and Greasing, Alloying, Metallic Coating)

Unit-8 : CHEMICAL REACTIVITY
8.1 Metals
8.1.1 Electropositive Character
8.1.2 Comparison of Reactivity of Alkali and Alkaline Earth Metals
8.2 Non-Metals
8.2.1 Comparison of Reactivity of the Halogens
8.2.2 Important Reactions of Halogens
8.2.3 Significance of Non-Metals

Prescribed Book: Chemistry for Part – I (Class –IX)
Authors: Dr. Jalil Tariq , Dr. Irshad Ahmad Chatha
Published by: The Carvan Book House, Lahore
                For: Punjab Text Book Board, Lahore

Part-II (Class-X)	Marks: 60	Time: 2:00 Hours

Unit-9 : CHEMICAL EQUILIBRIUM
9.1   Reversible Reaction and Dynamic Equilibrium
9.2   Law of Mass Action
9.3   Equilibrium Constant and its Units
9.4   Importance of Equilibrium Constant

Unit-10 : ACIDS, BASES AND SALTS
10.1   Concepts of Acids and Bases
10.1.1 Arrhenius Concept of Acids and Bases
10.1.2 Limitation of Arrhenius Concept
10.1.3 Lewis Concept of Acids and Bases
10.1.4 General Properties of Acids
10.1.5 General Properties of Bases
10.2   pH Scale
10.3   Salts
10.3.1 Preparation   10.3.2 Types of Salts
10.3.3 Uses of Salts

Unit-11 : ORGANIC CHEMISTRY
11.1   Organic Compounds
11.1.1 Classification of Organic Compounds
11.1.2 Diversity and Magnitude of Organic Compounds
11.1.3 General Characteristics of Organic Compounds
11.2   Sources of Organic Compounds
11.2.1 Coal   11.2.2 Petroleum
11.2.3 Natural Gas   11.2.4 Plants
11.2.5 Synthesis in Laboratory
11.3   Uses of Organic Compounds
11.4   Alkenes and Alky Radicals
11.5   Functional Groups
11.5.1 Functional Groups depend on Carbon, Hydrogen and Oxygen
11.5.2 Functional Groups depend on Carbon, Hydrogen and Nitrogen
11.5.3 Functional Groups depends on Carbon, Hydrogen and Halogen
11.5.4 Double and Triple Bond
11.6   Tests of functional groups
11.6.1 Test for unsaturation   11.6.2 Test for Alcoholic group
11.6.3 Test for Carboxylic group   11.6.4 Test for Aldehydic group
11.6.5 Test for Ketonic group   11.6.6 Test for Primary Amino group
11.6.7 Test for ester

Unit-12 :   **HYDROCARBONS**
     12.1   Alkanes
         12.1.1 Preparation of Alkenes
              (Hydrogenation of alkenes and alkynes, Reduction of alkyl halides)
         12.1.2 Chemical reactions (Halogenation, Combustion)
     12.2   Alkenes
         12.2.1 Preparation of Alkenes
              (Dehydration of Alcohols, Dehydrohalogenation of alkyl halides)
         12.2.2 Chemical reactions
              (Hydrogenation of alkenes, Halogenation of alkenes, Hydro
              Halogenation of Alkenes, Oxidation of alkenes with $KMnO_4$)
     12.3   Alkynes
         12.3.1 Preparation of Alkynes (Dehydro Halogenation of vicinal dihalides,
              Dehalogenation of terahalides)
         12.3.2 Chemical Reactions (Addition of halogen, Oxidation with $KMnO_4$)

Unit-13 :   **BIOCHEMISTRY**
     13.1   Carbohydrates
         13.1.1 Monosoccharides   13.1.2 Oligosaccharides
         13.1.3 Polysaccharides   13.1.4 Sources and uses of
                                     carbohydrates
     13.2   Protein
         13.2.1 Amino Acids are building blocks of proteins
         13.2.2 Sources and uses of proteins
     13.3   Lipids
         13.3.1 Fatty acids   13.3.2 Sources and uses of lipids
     13.4   Nucleic Acids
         13.4.1 Deoxyribonucleic acid (DNA)   13.4.2 Ribonucleic acid RNA
     13.5   Vitamins
         13.5.1 Types of Vitamins (Fat soluble vitamins, Water soluble vitamins)
         13.5.2 Importance of vitamins

Unit-14 :   **THE ATMOSPHERE**
     14.1   Composition of Atmosphere
     14.2   Layers of Atmosphere
         14.2.1 Troposphere   14.2.2 Stratosphere
     14.3   Pollutants
         14.3.1 Types of pollutants   14.3.2 Sources of air pollutants
     14.4   Acid Rain and its Effects
     14.5   Ozone Depletion and its Effects

Unit-15 :   **WATER**
     15.1   Properties of Water
     15.2   Water as Solvent
     15.3   Soft and Hard Water
         15.3.1 Types of Hardness of Water
         15.3.2 Methods of Removing Hardness
     15.4   Water Pollution
         15.4.1 Industrial effluents   15.4.2 Domestic effluents
         15.4.3 Agricultural effluents
     15.5   Waterborne infectious diseases (Dysentery, Cholera, Cryptosporidium,
         Fluorosis, Hepatitis, Hookworm, Jaundice, Typhoid)

Unit-16 :   **CHEMICAL INDUSTRIES**
     16.1   Basic Metallurgical Operations
     16.2   Manufacture of Sodium Carbonate by Solvay's Process
         16.2.1 Materials   16.2.2 Basic reactions
     16.3   Manufacture of Urea

16.3.1 Raw materials   16.3.2 Process

16.4 Petroleum Industry

16.4.1 Petroleum   16.4.2 Origin of Petroleum

16.4.3 Important fractions of Petroleum

LIST OF PRACTICALS FOR CLASS-IX (PART-I)

1. Separate the given mixture of iron fillings and sand by physical method.
2. Determine the melting point of given compounds Naphthalene.
3. Determine the melting point of given compounds Biphenyl.
4. Determine the boiling point of given liquids (Acetone.
5. Determine the boiling point of given liquids (Toluene.
6. Determine the boiling point of given liquids (Ethyl alcohol.
7. Demonstrate sublimation using ammonium chloride.
8. Separate naphthalene from given mixture of sand and naphthalene by sublimation.
9. Separate the given mixture of alcohol and water by distillation.
10. Demonstrate that a chemical reaction releases energy in the form of heat.
11. Prepare $100cm^3$ of 0.1M sodium hydroxide (NaOH solution.
12. Prepare $100cm^3$ of 0.1M sodium carbonate (Na_2CO_3 solution.
13. Prepare $250cm^3$ of 0.1M HCl solution.
14. Prepare $250cm^3$ of 0.1M oxalic acid ($H_2C_2O_4.2H_2O$ solution.
15. Prepare $100cm^3$ of 0.1M sodium hydroxide (NaOH solution from the given 1M solution.
16. Prepare $100cm^3$ of 0.01M Na2CO3 solution from the given 0.1 M solution.
17. Prepare $100cm^3$ of 0.01M hydrochloric acid (HCl solution from the given 0.1M solution.
18. Prepare $100cm^3$ of 0.01M oxalic acid solution from the given 0.1M solution.
19. Prepare pure copper sulphate crystals from the given impure sample.
20. Demonstrate that miscible liquids dissolve in each other and immiscible liquids do not.
21. Demonstrate that temperature affects the solubility.
22. Demonstrate the conductivity of different given solution.
23. Demonstrate a metal displacement reaction in aqueous medium.
24. Demonstrate that two elements combine to form a binary compound.
25. Demonstrate that compounds can be products of a decomposition reaction.
26. Demonstrate that some processes absorb energy.

LIST OF PRACTICALS FOR CLASS-X (PART-II)

1. Identify sodium, calcium, strontium, barium, copper and potassium ions by flame test.
2. Standardize the given NaOH solution volumetrically.
3. Standardize the given HCl solution volumetrically.
4. Determine the exact molarity of the Na_2CO_3 solution volumetrically.
5. Determine the exact molarity of a solution of oxalic acid volumetrically.
6. Demonstrate that some natural substances are weak acids.
7. Classify substances as acidic, basic or neutral.
8. Identify aldehydes using Fehling's test and Tollen's test.
9. Identify ketones using 2,4-dinitrophenyl hydrazine test.
10. Identify carboxylic acids using sodium carbonate test.
11. Identify phenol using Ferric Chloride test.
12. Identify saturated and unsaturated organic compounds by $KMnO_4$ test.
13. Demonstrate that sugar decomposes into elements and other compounds.
14. Demonstrate the softening of water by removal of calcium and magnesium ions from hard water.

Prescribed Book: Chemistry for Part – II (Class – X)
Authors: Dr. Jalil Tariq , Dr. Irshad Ahmad Chatha
Published by: The Carvan Book House, Lahore
        For: Punjab Text Book Board, Lahore

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BIOLOGY

Part – I	60 Marks
Part – II	60 Marks
Practical	30 Marks
Total	**150 Marks**

Part-I (Class-IX)	**Marks: 60**	**Time: 2:00 Hours**

Unit-1 : INTRODUCTION TO BIOLOGY
   1.1 Introduction to Biology
      1.1.1 Divisions and Branches of Biology
      1.1.2 Relationship of Biology to other Sciences
      1.1.3 Quran and Biology
   1.2 The Levels of Organization
      1.2.1 Cellular Organizations

Unit-2 : SOLVING A BIOLOGICAL PROBLEM
   2.1 Biological Method
      2.1.1 Biological Problem, Hypothesis, Deductions and Experiments
      2.1.2 Theory, Law and Principle
   2.2 Data Organization and Data Analysis
   2.3 Mathematics as an Integral Part of Scientific Process

Unit-3 : BIODIVERSITY
   3.1 Biodiversity
   3.2 Classification – Aims and Principles
   3.3 History of Classification Systems
      3.3.1 Two-Kingdom Classification System
      3.3.2 Three-Kingdom Classification System
      3.3.3 Five-Kingdom Classification System
   3.4 The Five Kingdoms
   3.5 Binomial Nomenclature
   3.6 Conservation of Biodiversity
      3.6.1 Impact of human beings on Biodiversity
      3.6.2 Deforestation Species in Pakistan
      3.6.3 Steps for the Conservation of Biodiversity
      3.6.4 Endangered Species in Pakistan

Unit-4 : CELLS AND TISSUES
   4.1 Microscopy and the Emergence of Cell Theory
      4.1.1 Light Microscopy and Electron Microscopy
      4.1.2 History of the Formulation of Cell Theory
   4.2 Cellular Structures and Functions
      4.2.1 Cell Wall   4.2.2 Cell Membrane
      4.2.3 Cytoplasm   4.2.4 Cytoskeleton
      4.2.5 Cell Organelles
      4.2.6 Difference between Prokaryotic and Eukaryotic Cells
      4.2.7 Relationship between Cell Function and Cell Structure
   4.3 Cell size and Surface Area to Volume Ratio
   4.4 Passage of Molecules into and out of Cells
   4.5 Animal and Plant Tissues

Unit-5 : CELL CYCLE
   5.1 Cell Cycle
   5.2 Mitosis
      5.2.1 Phases of Mitosis   5.2.2 Significance of Mitosis

    5.3 Meiosis
        5.3.1 Phases of Meiosis   5.3.2 Significance of Meiosis
    5.4 Apoptosis and Necrosis

Unit-6 :   ENZYMES
    6.1 Characteristics of Enzymes
        6.1.1 Factors Affecting the Rate of Enzyme Action
    6.2 Mechanism of Enzyme Action
    6.3 Specificity of Enzymes

Unit-7 :   BIOENERGETICS
    7.1 Bioenergetics and the Role of ATP
    7.2 Photosynthesis
        7.2.1 Mechanism of Photosynthesis
        7.2.2 Role of Chlorophyll and Light
        7.2.3 Limiting Factors in Photosynthesis
    7.3 Respiration
        7.3.1 Aerobic and Anaerobic Respiration
        7.3.2 Mechanism of Respiration
        7.3.3 The Energy Budget of Respiration

Unit-8 :   NUTRITION
    8.1 Mineral Nutrition in Plants
    8.2 Components of Human Food
        8.2.1 Effects of Water and Dietary Fibers
        8.2.2 Balanced Diet
        8.2.3 Problems Related to Nutrition
    8.3 Digestion in Human
        8.3.1 Human Alimentary Canal   8.3.2 Role of Liver
    8.4 Disorders of Gut

Unit-9 :   TRANSPORT
    9.1 Transport in Plants
        9.1.1 Water and Ion Uptake   9.1.2 Transpiration
        9.1.3 Transport of Water   9.1.4 Transport of Food
    9.2 Transport in Human
        9.2.1 Blood   9.2.2 Human Heart
        9.2.3 Blood Vessels
        9.2.4 General Plan of Human Blood Circulatory System
    9.3 Cardiovascular Disorders
        9.3.1 Atherosclerosis and Arteriosclerosis
        9.3.2 Myocardial Infarction

Prescribed Book: Biology for Part – I (Class –IX)
Authors: Dr. William George , Dr. A.R. Sheikh , Editors: Dr. Abdul Rauf
               Shakoori , Mrs. Raheela Nadeem , Dr. Hamid Saeed
Published by: PLD Publishers, Lahore
          For: Punjab Text Book Board, Lahore

Part-II (Class-X)	**Marks: 60**	**Time: 2:00 Hours**

SECTION: 3
LIFE PROCESSES

Unit-10 :   GASEOUS EXCHANGE
    10.1 Gaseous Exchange in Plants
    10.2 Gaseous Exchange in Humans
        10.2.1 The Air Passageway   10.2.2 The Lungs

10.2.3 The Mechanism of Breathing

10.3 Respiratory Disorders (Bronchitis, Emphysema, Pneumonia, Asthma, Lung Cancer, Bad Effects of Smoking)

Unit-11 :   HOMEOSTASIS

11.1 Homeostasis in Plants

   11.1.1 Removal of Extra Carbon Dioxide and Oxygen

   11.1.2 Removal of Extra Water

   11.1.3 Removal of other Metabolic Wastes

   11.1.4 Osmotic Adjustments in Plants

11.2 Homeostasis in Humans

   11.2.1 Skin   11.2.2 Lungs

11.3 Urinary System of Humans

   11.3.1 Structure of Kidney   11.3.2 Functioning of Kidney

   11.3.3 Osmoregulatory Function of Kidney

11.4 Disorders of Kidney

   11.4.1 Kidney Stones   11.4.2 Kidney Failure

Unit-12 :   COORDINATION AND CONTROL

12.1 Types of Coordination (Coordinated Action)

12.2 Human Nervous System

   12.2.1 Nerve Cell or Neuron   12.2.2 Divisions of the Nervous System

   12.2.3 Reflex Action

12.3 Receptors in Humans

   12.3.1 Eye   12.3.2 Ear

12.4 Endocrine System

   12.4.1 Important Endocrine Glands

   12.4.2 Feedback Mechanisms

12.5 Disorders of Nervous System

   12.5.1 Paralysis   12.5.2 Epilepsy

Unit-13 :   SUPPORT AND MOVEMENT

13.1 Human Skeleton

   13.1.1 Role of Skeletal System

   13.1.2 Bone and Cartilage

   13.1.3 Components of Human Skeleton

13.2 Types of Joints

   13.2.1 Roles of Tendons and Ligaments

13.3 Muscles and Movement

13.4 Skeletal Disorders

   13.4.1 Osteoporosis   13.4.2 Arthritis

SECTION: 4
CONTINUITY IN LIFE

Unit-14 :   REPRODUCTION

14.1 Reproduction

14.2 Methods of Asexual Reproduction

   14.2.1 Binary Fission   14.2.2 Fragmentation

   14.2.3 Budding   14.2.4 Spore Formation

   14.2.5 Parthenogenesis   14.2.6 Vegetative Propagation

14.3 Sexual Reproduction in Plants

   14.3.1 Sexual Reproduction in Flowering Plants

   14.3.2 Pollination

   14.3.3 Development and Structure of Seed

   14.3.4 Germination of Seed

14.4 Sexual Reproduction in Animals

14.4.1   Formation of Gametes (Gametogenesis)
14.4.2   Fertilization
14.4.3   Reproduction in Rabbit
14.4.4   Growth in Human Population and its Consequences
14.4.5   Aids (A Sexually Transmitted Disease)

Unit-15 :   INHERITANCE
15.1   Introduction to Genetics
15.2   Chromosomes and Genes
15.3   Mendel's Laws of Inheritance
     15.3.1   Mendel's Law of Segregation
     15.3.2   Mendel's Law of Independent Assortment
15.4   Co-Dominance and Incomplete Dominance
15.5   Variations and Evolution
     15.5.1   Variations lead to Evolution
     15.5.2   Artificial Selection

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SECTION: 5
ECOLOGY

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Unit-16 :   MAN AND HIS ENVIRONMENT
16.1   Levels of Ecological Organization
     16.1.1 Components of Ecosystem
16.2   Flow of Materials and Energy in Ecosystems
     16.2.1 Flow of Energy   16.2.2 Flow of Materials
     16.2.3 Ecological Pyramids   16.2.4 Biogeochemical Cycles
16.3   Interactions in Ecosystems
     16.3.1 Raw materials   16.3.2 Process
16.4   Ecosystem Balance and Human Impacts
     16.4.1 Global Warming   16.4.2 Acid Rain
     16.4.3 Deforestation   16.4.4 Overpopulation
     16.4.5 Urbanization
16.5   Pollution; Consequences and Control
     16.5.1 Air Pollution   16.5.2 Water Pollution
     16.5.3 Land Pollution
16.6   Conservation of Nature
     16.6.1 Plans for the conservation of Nature

Unit-17 :   BIOTECHNOLOGY
17.1   Introduction of Biotechnology Scope and Importance of Biotechnology
17.2   Fermentation
     17.2.1 Fermentation in Biotechnology
     17.2.2 Fermenter
17.3   Genetic Engineering
     17.3.1 Objectives of Genetic Engineering
     17.3.2 Basic Steps in Genetic Engineering
     17.3.3 Achievements of Genetic Engineering
17.4   Single-Cell Protein

Unit-18 :   PHARMACOLOGY
18.1   Medicinal Drugs (Principle usage of important Medicinal Drugs)
18.2   Addictive Drugs (Drug Addiction and associated problems)
18.3   Antibiotics and Vaccines

LIST OF PRACTICALS FOR CLASS-IX (PART-I)

1. Study of different types of bacteria, Amoeba, Paramecium, Volvox with the help of prepared slides and from fresh culture /charts.
2. Study of external morphology of mustard plant and microscopic examination of root, stem, leaf, flower, fruit and seeds.
3. Identification of major organs and organ systems in a dissected frog (Dissection by demonstrator / teacher).
4. Recognition of different animals and plants from fresh and preserved specimens on the basis of apparent distinguishing taxonomic characters.
5. Evaluation of graphs of a population of an insect (endangered due to excessive use of insecticides) and interpret the reasons for its endangered status.
6. Use of microscope to observe the movement of small objects.
7. Microscopic examination of an animal cell (e.g. from frog's blood) and a plant cell (e.g. from onion epidermis) using an appropriate temporary techniques such as iodine or methylene blue.
8. Identification of different parts of the cell from fresh preparations.
9. Preparation of the wet mounts of tissue from flowering plants and study of plant and animal tissues from charts and prepared slides.
10. Determination of the effect of tonicity on plasmolysis and deplasmolysis in plant cells or in red blood cell.
11. Data collection on the number of stomata per unit area on various plant leaves that grow in areas of differing humidity and compilation of data and graph it to determine whether there is a relationship between the variables.
12. Observation of various stages of mitosis and meiosis by slides, model and charts.
13. Preparations of root tip squashes and study stages of mitosis
14. To demonstrate working of an enzyme in vitro e.g. pepsin working on meat in test tube.
15. Experiment to test enzyme action by putting diastase in a starch solution in test tube at 37^0 C and after fifteen minutes performing iodine test for presence of starch.
16. To demonstrate the process of photosynthesis using aquatic plant, Hydrilla.
17. Identification and labeling of the cellular and tissue structure in the CS of a leaf through observation under the microscope.
18. To investigate the necessity of chlorophyll, light and carbon dioxide for photosynthesis.
19. To demonstrate the process of respiration in germinating seed by using limewater.
20. To investigate the release of carbon dioxide and heat during aerobic respiration in germinating seeds.
21. Food tests: Benedict's test for reducing sugar, iodine test for starch, spot test and emulsion test for fat, and Biuret test for protein in solution.
22. Microscopic examination of a transverse section of the small intestine to show the villi.
23. Measurement of differences in length / weight of raw potato strips in concentrated salt solution and water.
24. Observation of root hairs on growing root of onion, carrot etc.
25. Microscopic observations of the structure and number of stomata in the epidermal peel of a leaf.
26. To investigate the rate of water loss at the two surfaces of a leaf by using cobalt chloride paper.
27. To investigate transpiration in potted plant under a bell jar.
28. Identification of xylem and phloem tissues in the prepared slides of stem, root and leaf.
29. To investigate the pathway of water in parts of plant using a suitable stain and compare sizes of various types of cells.
30. Identification of red and white blood cells under the light microscope on prepared slides and in diagrams and photomicrographs.
31. To investigate the effect of physical activity on pulse rate.
    Experiment to show the capillary flow in fishtail or fin or frog's web.

LIST OF PRACTICALS FOR CLASS-X (PART-II)

1. Activity to compare the breathing rate at rest and after exercise.
2. Experiment to find out how much air a person can take into his / her lungs.
3. Demonstration of the presence of carbon dioxide in the exhaled air.
4. Demonstration of the presence of tar in cigarette smoke and also showing by charts and pictures the difference of lungs of smokers and non-smokers.
5. Examination of the structure of the kidney (Sheep kidney / model).
6. Observation and recording of the difference in quickness of response of the two types of co-ordination (by asking a student to say few words in front of class and observe the changes in heart beat).
7. Experiment to observe the contraction in the shin muscle of frog in a petri dish filled with methylene blue and using 12V.DC current.
8. Identify the different parts and draw a labeled diagram of longitudinal of eye of a sheep or bull.
9. Investigation of the nature of bone (by putting three pieces of the bone of lamb in water, NaOH and dilute HCL).
10. Observation of binary fission in Amoeba by using slides, photomicrograph and charts.
11. Observation of budding in yeast from prepared slides.
12. Examination of a bulb (onion), corm (colocasia), rhizome (ginger) and stem tuber (potato) and their cultivation to get new plants.
13. Propagation by stem cutting (rose or any locally available plant) and bryophyllum leaf.
14. Examination of mustard flower, gram seed and maize grain.
15. Investigation of the conditions for seed germination.
16. Recording the heights of class fellows to predict which kind of variation is it and presentation of the data of class fellows height in graphical form (either histogram or bar chart).
17. Investigation of an ecosystem e.g. an aquarium or a pond.
18. Investigation about the role of yeast and bacteria in the fermentation of flour and milk.

Prescribed Book: Biology for Part – II (Class –X)

Authors: Dr. Rass Masood , Dr. Farhat Iqbal , Dr. Saraphine Salik , Farhat Zahra

Published by: PLD Publishers, Lahore

For: Punjab Text Book Board, Lahore

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MATHEMATICS
(For Science Students Only)

Part – I   75 Marks

Part – II   75 Marks

Total   **150 Marks**

Part-I (Class-IX)   **Marks: 75**   **Time: 2:30 Hours**

Unit-1 : MATRICES AND DETERMINANTS
- 1.1 Matrix
    - 1.1.1 Rows and Columns of a Matrix
    - 1.1.2 Order of a Matrix   1.1.3 Equal Matrices
- 1.2 Types of Matrices
- 1.3 Addition and Subtraction of Matrices
    - 1.3.1 Addition of Matrices   1.3.2 Subtraction of Matrices
    - 1.3.3 Multiplication of a Matrix by a Real Number
    - 1.3.4 Commutative and Associative Laws of Addition of Matrices
    - 1.3.5 Additive Identity of a Matrix
    - 1.3.6 Additive Inverse of a Matrix
- 1.4 Multiplication of Matrices
    - 1.4.1 Associative Law under Multiplication
    - 1.4.2 Distributive Laws of Multiplication over Addition and Subtraction
    - 1.4.3 Commutative Law of Multiplication of Matrices
    - 1.4.4 Multiplicative Identity of Matrix
    - 1.4.5 Verification of $(AB)^t = B^t A^t$
- 1.5 Multiplicative Inverse of a Matrix
    - 1.5.1 Determinant of a 2-by-2 Matrix
    - 1.5.2 Singular and Non-Singular Matrix
    - 1.5.3 Adjoint of a Matrix
    - 1.5.4 Multiplicative Inverse of a Non-Singular Matrix
    - 1.5.5 Inverse of a Matrix using Adjoint
    - 1.5.6 Verification of $(AB)^{-1} = B^1 A^1$
- 1.6 Solution of Simultaneous Linear Equations

Unit-2 : REAL AND COMPLEX NUMBERS
- 2.1 Real Numbers
    - 2.1.1 Set of Real Numbers
    - 2.1.2 Depiction of Real Numbers on Number Line
    - 2.1.3 Demonstration of a Number with Terminating and Non-Terminating decimals on the Number Line
    - 2.1.4 Representation of Rational and Irrational Numbers on Number Line
- 2.2 Properties of Real Numbers
- 2.3 Radicals and Radicands
    - 2.3.1 Concept of Radicals and Radicands
    - 2.3.2 Difference between Radical form and Exponential form
    - 2.3.3 Transformation of an Expression given in Radical form to Exponential form and vice versa
- 2.4 Laws of Exponents / Indices
    - 2.4.1 Base and Exponent
    - 2.4.2 Applications of laws of Exponents
- 2.5 Complex Numbers
    - 2.5.1 Definition of a Complex Number
    - 2.5.2 Set of Complex Numbers

2.5.3 Conjugate of a Complex Number

2.5.4 Equality of Complex Numbers and its Properties

2.6 Basic Operations on Complex Numbers

Unit-3 : LOGARITHMS

3.1 Scientific Notation

3.2 Logarithm

3.2.1 Logarithm of a Real Number

3.2.2 Definitions of Common Logarithm, Characteristic and Mantissa

3.2.3 Using Tables to find log of a Number

3.2.4 The Concept of Antilogarithm and Use of Tables

3.3 Common Logarithm and Natural Logarithm

3.4 Laws of Logarithm

3.5 Application of Laws of Logarithm in Numerical Calculations

Unit-4 : ALGEBRAIC EXPRESSIONS AND ALGEBRAIC FORMULAS

4.1.1 Rational Expressions behave like Rational Numbers

4.1.2 Rational Expression

4.1.3 Properties of Rational Expression

4.1.4 Rational Expression in its Lowest form

4.1.5 To Examine whether a Rational Expression is in lowest form or not

4.1.6 Working Rule to reduce a Rational Expression to its Lowest terms

4.1.7 Sum, Difference and Product of Rational Expressions

4.1.8 Dividing a Rational Expression with another Rational Expression

4.1.9 Evaluation of Algebraic Expression at some particular Real Number Definition

4.2 Algebraic Formulae

4.3 Surds and their Application

4.3.1 Definition

4.3.2 Operations on surds

4.4 Rationalization of Surds

Unit-5 : FACTORIZATION

5.1 Factorization

5.2 Remainder Theorem and Factor Theorem

5.2.1 Remainder Theorem

5.2.2 To find Remainder (without dividing) when a polynomial is divided by a Linear Polynomial

5.2.3 Zero of a Polynomial

5.2.4 Factor Theorem

5.3 Factorization of a Cubic Polynomial

Unit-6 : ALGEBRAIC MANIPULATION

6.1 Highest Common Factor (H.C.F.) and Least Common Multiple (L.C.M.) of Algebraic Expressions

6.1.1 Highest Common Multiple (H.C.F)

6.1.2 Finding H.C.F.

6.1.3 Relation between H.C.F. and L.C.M.

6.1.4 Application of H.C.F. and L.C.M.

6.2 Basic Operations on Algebraic Fractions

6.3 Square Root of Algebraic Expression

Unit-7 : LINEAR EQUATIONS AND INEQUALITIES

7.1 Linear Equations

7.1.1 Definition

7.1.2 Solving a Linear Equation in One Variable

7.1.3 Equations Involving Radicals but Reducible to Linear Form definition.

7.2   Equation Involving Absolute Value

7.2.1 Definition

7.2.2 Solving Linear Equations Involving Absolute Value

7.3   Linear Inequalities

7.3.1 Defining Inequalities   7.3.2 Properties of Inequalities

7.4   Solving Linear Inequalities

Unit-8   :   LINEAR GRAPHS & THEIR APPLICATION

8.1   Cartesian Plane and linear Graphs

8.1.1 An Ordered Pair of Real Numbers

8.1.2 Recognizing an Ordered Pair

8.1.3 Cartesian Plane

8.1.4 Identification of Origin and Co-ordinate Axes

8.1.5 Location of the Point P (a,b) in the Plane Corresponding to the Ordered Pair (a,b)

8.1.6 Drawing different Geometrical Shapes of Cartesian Plane

8.1.7 Construction of a Table for Pairs of Values Satisfying a Linear Equation in Two Variables.

8.1.8 Plotting the Points to get the graph

8.1.9 Scale of Graph

8.1.10 Drawing Graphs of the following Equations

8.1.11 Drawing Graph from a given Table of Discrete Values

8.1.12 Solving Real Life Problems

8.2   Conversion Graphs

8.2.1 To Interpret Conversion Graph

8.2.2 Reading a Given Graph

8.2.3 Reading the Graphs of Conversion

8.3   Graphical Solution of Linear Equations in two Variables

Unit-9   :   INTRODUCTION TO COORDINATE GEOMETRY

9.1   Distance Formula

9.1.1 Coordinate Geometry

9.1.2 Finding Distance between two points

9.1.3 Use of Distance Formula

9.2   Collinear Points

9.2.1 Collinear or Non-collinear Points in the Plane

9.2.2 Use of Distance Formula to show the Collinearity of Three or more Points in the Plane

9.2.3 Use of Distance Formula to Different Shapes of a Triangle

9.2.4 Use of Distance Formula to Show that given four Non-collinear Points form a Square, a rectangle and parallelogram

9.3   Mid-Point Formula

9.3.1 Recognition of the Mid-Point

9.3.2 Verification of the Mid-Point Formula

Unit-10 :   CONGRUENT TRIANGLES

Theorem 1   In any correspondence of two triangles, if one side and any two angles of one triangle are congruent to the corresponding side and angles of the other, then the triangles are congruent.

Theorem 2   If two angles of a triangles are congruent, then the sides opposite to them are also congruent.

Theorem 3   In a correspondence of two triangles, if three sides of one triangle are congruent to the corresponding three sides of the

other, the two triangles are congruent.

Theorem 4 If in the correspondence of two right-angled triangles, the hypotenuse and one side of one are congruent to the hypotenuses and the corresponding side of the other, then the triangles are congruent.

Unit-11 : PARALLELOGRAMS AND TRIANGLES

Theorem 1 In a parallelogram
> Opposite sides are congruent.
> Opposite angles are congruent.
> The diagonals bisect each other.

Theorem 2 If two opposite sides of a quadrilateral are congruent and parallel, it is a parallelogram.

Theorem 3 The line segment, joining the mid-points of two sides of a triangle, is parallel to the third side and is equal to one half of its length.

Theorem 4 The medians of a triangle are concurrent and their point of concurrency is the point of trisection of each median.

Theorem 5 If three or more parallel lines make congruent segments on a transversal, they also intercept congruent segments on any other line that cuts them.

Unit-12 : LINE BISECTORS AND ANGLE BISECTORS

Theorem 1 Any point on the right bisector of a line segment is equidistant from its end points.

Theorem 2 Any point equidistant from the end points of a line segment is on the right bisector of it.

Theorem 3 The right bisectors of the sides of a triangle are concurrent.

Theorem 4 Any point on the bisector of an angle is equidistant from its arms.

Theorem 5 Any point inside an angle, equidistant from its arms, is on the bisector of it.

Theorem 6 The bisectors of the angles of a triangle are concurrent.

Unit-13 : SIDES AND ANGLES OF A TRIANGLE

Theorem 1 If two sides of a triangle are unequal in length, the longer side has an angle of greater measure opposite to it.

Theorem 2 If two angles of a triangle are unequal in measure, the side opposite to the greater angle is longer than the side opposite to the smaller angle.

Theorem 3 The sum of the lengths of any two sides of a triangle is greater than the length of the third side.

Theorem 4 From a point, outside at line, the perpendicular is the shortest distance from the point on the line.

Unit-14 : RATIO AND PROPORTION

Theorem 1 A line parallel to one side of a triangle and intersecting the other two sides, divides them proportionally.

Theorem 2 If a line segment intersects the two sides of a triangle in the same ratio, then it is parallel to the third side.

Theorem 3 The internal bisector of an angle of a triangle divides the side opposite to it in the ratio of the lengths of the sides containing the angle.

Theorem 4 If two triangles are similar, the measures of their corresponding sides are proportional.

Unit-15 : PYTHAGORAS THEOREM

Theorem 1 In a right angled triangle, the square of the length of hypotenuse

is equal to the sum of the squares of the lengths of the other two sides.

Theorem 2   If the square of one side of a triangle is equal to the sum of the squares of the other two sides, then the triangle is a right angled triangle.

Unit-16 :   THEOREMS RELATED WITH AREA

Theorem 1   Parallelograms on the same base and between the same parallel lines (or of the same altitude) are equal in area.

Theorem 2   Parallelograms on equal bases and having the same altitude are equal in area.

Theorem 3   Triangles on the same base and of the same altitude are equal in area.

Theorem 4   Triangles on equal bases and of the same altitude are equal in area.

Unit-17 :   PRACTICAL GEOMETRY --- TRIANGLES

Theorem 1   Construction of Triangles

Theorem 2   Figures with Equal Area

Prescribed Book: Mathematics (Science Group) for Part – I (Class –IX)
Authors: Dr. Karamat H. Dar , Prof. Irfan-ul-Haq
Published by: CARVAN BOOK HOUSE, LAHORE
                 For: Punjab Text Book Board, Lahore

Part-II (Class-X)	**Marks: 75**	**Time: 2:30 Hours**

Unit-1   :   QUADRATIC EQUATIONS
1.1 Quadratic Equation
1.2 Solution of quadratic equations
1.3 Quadratic Formula
1.4 Equations reducible to quadratic form
1.5 Radical equations

Unit-2   :   THEORY OF QUADRATIC EQUATIONS
2.1 Nature of the roots of a quadratic equation
2.2 Cube Roots of Unity and their Properties
2.3 Roots and Co-efficient of a quadratic equation
2.4 Symmetric functions of the roots of a quadratic equation
2.5 Formation of a quadratic equation
2.6 Synthetic Division
2.7 Simultaneous Equations

Unit-3   :   VARIATIONS
3.1 Ratio, Proportions and Variations
3.2 Theorems on Proportions

Unit-4   :   PARTIAL FRACTIONS
4.1 Fraction
    4.1.1 Rational Expressions behave like Rational Numbers
    4.1.2 Rational Expression
    4.1.3 Properties of Rational Expression
4.2 Resolution of Fraction into Partial Fractions

Unit-5   :   SETS AND FUNCTIONS
5.1 Sets
5.2 Binary Relation
5.3 Function or Mapping

Unit-6   :   BASIC STATISTICS

6.1 Frequency Distribution
6.2 Cumulative Frequency Distribution
6.3 Measures of Central Tendency
6.4 Measures of Dispersion

Unit-7 : INTRODUCTION TO TRIGNOMETRY

7.1 Measurement of an Angle
7.2 Sector of a Circle
7.3 Trigonometric Ratios
7.4 Trigonometric Identities
7.5 Angle of Elevation and Angle of Depression

Unit-8 : PROJECTION OF A SIDE OF A TRIANGLE

Theorem 1   In an obtuse angled triangle, the square on the side opposite to the obtuse angle is equal to the sum of the squares on the sides containing the obtuse angle together with twice the rectangle contained by one of the sides, and the projection on it of the other.

Theorem 2   In any triangle, the square on the side opposite to acute angle is equal to the sum of the squares on the sides containing that acute angle diminished by twice the rectangle contained by one of those sides and the projection on it of the other.

Theorem 3   In any triangle, the sum of the squares on any two sides is equal to twice the square on half the third side together with twice the square on the median which bisects the third side.

Unit-9 : CHORDS OF CIRCLE

Theorem 1   One and only one circle can pass through three non-collinear points.

Theorem 2   A straight line, drawn from the centre of a circle to bisect a chord (which is not a diameter) is perpendicular to the chord.

Theorem 3   Perpendicular from the centre of a circle on a chord bisects it.

Theorem 4   If two chords of a circle are congruent, then they will be equidistant from the centre.

Theorem 5   Two chords of a circle which are equidistant from the centre, are congruent.

Unit-10 : TANGENT TO A CIRCLE

Theorem 1   If a line is drawn perpendicular to a radial segment of a circle at its outer end point, it is tangent to the circle at that point.

Theorem 2   The tangent to a circle and the radial segment joining the point of contact and the centre are perpendicular to each other.

Theorem 3   Two tangents drawn to a circle from a point outside it, are equal in length.

Theorem 4a If two circles touch externally, then the distance between their centres is equal to the sum of their radii.

Theorem 4b If two circles touch each other internally, then the point of contact lies on the line segment through their centres and distance between their centres is equal to the difference of their radii.

Unit-11 : CHORDS AND ARCS

Theorem 1   If two arcs of a circle (or of congruent circles) are congruent, then the corresponding chords are equal.

Theorem 2   If two chords of a circle (or of congruent circles) are equal, then their corresponding arcs (minor, major or semi-circular) are congruent. In equal circles or in the same circle, if two chords are equal, they cut off equal arcs.

Theorem 3   Equal chords of a circle (or of congruent circles) subtend equal angles at the centre (at the corresponding centres).

Theorem 4   If the angles subtended by two chords of a circle (or congruent circles) at the centre (corresponding centres) are equal, the chords are equal.

Unit-12 :   ANGLES IN A SEGMENT OF A CIRCLE

Theorem 1   The measure of a central angle of a minor arc of a circle is double than that of the angle subtended by the corresponding major arc.

Theorem 2   Any two angles in the same segment of a circle are equal.

Theorem 3   The angle

In a semi-circle is a right angle,

In a segment greater than a semi-circle is less than a right angle

In a segment less than a semi-circle is greater than a right angle.

Theorem 4   The opposite angles of any quadrilateral inscribed in a circle are supplementary.

Unit-13 :   PRACTICAL GEOMETRY CIRCLES

13.1 Construction of a Circle

13.2 Circles Attached to Polygons

13.3 Tangent to the Circle

13.4 Answers

13.5 Symbols and abbreviations

13.6 Table of logarithm

13.7 Glossary

13.8 Index

GENERAL MATHEMATICS
(For Arts Students Only)

Part – I	75 Marks
Part – II	75 Marks
Total	**150 Marks**

Part-I (Class-IX)	**Marks: 75**	**Time: 2:30 Hours**

Unit-1 : PERCENTAGE, RATIO AND PROPORTION
  1.1 Percentage
     1.1.1 Percentage as a fraction with Denominator 100
     1.1.2 Conversion of a Percentage to a Fraction by Expressing it as a Fraction with Denominator 100
     1.1.3 Real Life Problems Involving Percentage
  1.2 Ratio
     1.2.1 Ratio as a Relation
     1.2.2 Ratio when a Number is increased or decreased
     1.2.3 Real Life Problems involving Ratio
  1.3 Proportion
     1.3.1 Extremes and Means   1.3.2 Proportion (Direct and Inverse)
     1.3.3 Real Life Problems
  1.4 Compound Proportion

Unit-2 : ZAKAT, USHR AND INHERITANCE
  2.1 Zakat
     2.1.1 Nisab   2.1.2 Rate of Zakat
  2.2 Ushr
  2.3 Inheritance
     2.3.1 Ratio of Shares among Legal Inheritors of a Property
     2.3.2 Calculate Amount of Share of Each Legal Inheritor of a Property

Unit-3 : BUSINESS MATHEMATICS
  3.1 Profit And Loss
     3.1.1 Cost Price and Selling Price   3.1.2 Profit
     3.1.3 Loss   3.1.4 Real Life Problems
  3.2 Discount
     3.2.1 Marked Price (MP) and List Price
     3.2.2 Relations Regarding Discount
     3.2.3 Real Life Problems

Unit-4 : FINANCIAL MATHEMATICS
  4.1 Commercial Banking
     4.1.1 Bank Deposit and Types of Accounts
     4.1.2 Negotiable Instruments   4.1.3 Online Banking
  4.2 Exchange of Currencies
  4.3 Profit / Markup
     4.3.1 Calculation of Profit   4.3.2 Calculation of Markup
  4.4 Insurance
     4.4.1 Insurance
     4.4.2 Life Insurance and Vehicle Insurance
     4.4.3 Simple Real Life Problems Regarding Purchase of Life and Motor Vehicle Insurance
  4.5 Leasing / Financing
     4.5.1 Leasing / Financing   4.5.2 Real Life Problems

Unit-5 : CONSUMER MATHEMATICS
  5.1 Taxes

        5.1.1 Tax   5.1.2 Key Terms

5.2   Utility Bills

5.3   Personal Income
- 5.3.1 Personal Income of a Worker (Who is paid on Daily Basis)
- 5.3.2 Gross Income of a Salaried Person
- 5.3.3 Income after Deductions

Unit-6 :   EXPONENTS AND LOGARITHMS

6.1   Radicals and Radicands
- 6.1.1 Radicals and Radicands
- 6.1.2 Radical Form and Exponential Form of an Expression
- 6.1.3 To Transform an Expression in Radical Form to an Expression in Exponential Form and Vice Versa

6.2   Laws of Exponents / Indices
- 6.2.1 Base, Exponent and Value
- 6.2.2 Laws of Exponents and their Applications

6.3   Scientific Notation

6.4   Logarithm
- 6.4.1 Logarithm of a Number   6.4.2 Common Logarithm
- 6.4.3 Finding logarithm of a Number
- 6.4.4 The Concept of Antilogarithm

6.5   Laws of Logarithm

6.6   Application of Logarithm

Unit-7 :   ARITHMETIC AND GEOMETRIC SEQUENCES

7.1   Sequence (Progression)
- 7.1.1 Finite and Infinite Sequences
- 7.1.2 Construction of a Sequence from a Formula

7.2   Arithmetic Sequence (Progression)

7.3   Arithmetic Mean
- 7.3.1 Arithmetic Mean
- 7.3.2 Arithmetic Means between Two Numbers

7.4   Geometric Sequence (Progression)

7.5   Geometric Mean (G.M.)
- 7.5.1 "n" Geometric Means Between two Numbers

Unit-8 :   SETS AND FUNCTIONS

8.1   Set (Important Sets)
- 8.1.1 Operations on Sets   8.1.2 Properties of Union of Sets
- 8.1.3 Venn Diagram
- 8.1.4 Commutative Laws for Union and Intersection of Sets by Venn Diagram

8.2   Binary Relation

8.3   Function

Unit-9 :   LINEAR GRAPHS

9.1   Cartesian Plane and Linear Graphs
- 9.1.1 Pair of Real Numbers as an Ordered Pair
- 9.1.2 Ordered Pairs
- 9.1.3 Rectangular or Cartesian Plane
- 9.1.4 Identifying of Origin (O) and Co-ordinate Axis in Rectangular Plane
- 9.1.5 Locating an Ordered Pair (a,b), Recognizing Abscissa and Ordinate
- 9.1.6 Geometrical Shapes by Joining a Set of given Points
- 9.1.7 Table for Pairs of Values satisfying a Linear Equation in two Variables
- 9.1.8 Plot the Pairs of Points to obtain the Graph of a given Expression

9.1.9 Choosing an Appropriate Scale to Draw a Graph
9.1.10 Graphs of Linear Equations of the form y = c
9.1.11 Draw a Graph from a given Table
9.1.12 Identification of Domain and Range of a Function Through Graph

9.2 Conversion Graphs
9.2.1 Conversion Graph as a Linear Graph
9.2.2 Read a given Graph to Know One Quantity Corresponding to another
9.2.3 Read the Graph for Conversion

Unit-10 :   BASIC STATISTICS
10.1 Frequency Distribution
10.1.1 Grouped Frequency Table   10.1.2 Histogram
10.1.3 Frequency Polygon
10.2 Cumulative Frequency
10.2.1 Cumulative Frequency   10.2.2 Cumulative Frequency Polygon
10.3 Measures of Central Tendency
10.3.1 Calculate Arithmetic Mean or Mean, Median, Mode, Geometric Mean, Harmonic Mean from Ungrouped / Grouped Data
10.3.2 Properties of Arithmetic Mean
10.3.3 Weighted Mean and Moving Average
10.3.4 Estimate Median, Quartile and Mode Graphically, Graphic Location of Median
10.4 Measures of Dispersion

• **ANSWERS**   • **GLOSSARY**   • **SYMBOLS**   • **INDEX**   • **LOGARITHMS**

Part-II (Class-X)	Marks: 75	Time: 2:30 Hours

Unit-1   :   ALGEBRAIC FORMULAE AND APPLICATIONS
1.1 Algebraic Expressions
1.1.1 Rational Expression
1.1.2 Improper Rational Expression
1.1.3 Examine A Given Algebraic Expression
1.1.4 Rational Expression in its Lowest Terms
1.1.5 Reduce A Rational Expression to its Lowest Terms
1.1.6 Sum, Difference and Product of Rational Expressions
1.1.7 Division of a Rational Expression
1.1.8 Value of an Algebraic Expression
1.2 Formulae
1.3 Surds and Their Applications
1.3.1 Surds   1.3.2 Surds of Second Order
1.4 Rationalization
Unit-2   :   FACTORIZATION
2.1 Factorization of Expressions
2.2 Remainder Theorem and Factor Theorem
2.2.1 The Remainder Theorem
2.2.2 Finding Remainder without Dividing
2.2.3 Zeros of a Polynomial   2.2.4 The Factor Theorem
2.3 Factorizing a Cubic Polynomial
Unit-3   :   ALGEBRAIC MANIPULATION

3.1   Highest Common Factor (H.C.F) Least Common Multiple (L.C.M)
          3.1.1 Highest Common Factor (H.C.F)
          3.1.2 Least Common Multiple (L.C.M)
          3.1.3 Relationship Between HCF and LCM
3.2   Basic Operations on the Algebraic Fractions
          3.2.1 Addition and Subtraction of the Algebraic Fractions
          3.2.2 Multiplication and Division of the Algebraic Fractions
3.3   Square Root of an Algebraic Expression
          3.3.1 Square Root by Factorization Method
          3.3.2 Square Root by Division Method

Unit-4   :   LINEAR EQUATIONS AND INEQUALITIES
4.1   Linear Equations
          4.1.1 Linear Equation in one Variable
          4.1.2 Solution of a Linear Equation
          4.1.3 Equations Involving Radicals
4.2   Equations Involving Absolute Value
          4.2.1 Absolute Value
          4.2.2 Equations Involving Absolute Value
4.3   Linear Inequalities
          4.3.1 Inequalities (>,<) and (≥,≤):   4.3.2 Properties of Inequalities
4.4   Solving Linear Inequalities

Unit-5   :   QUADRATIC EQUATIONS
5.1   Quadratic Equations
5.2   Solution of a Quadratic Equation
          5.2.1 Solution of a Quadratic Equation by Factorization
          5.2.2 Solution of a Quadratic Equation by completing the Square Method
5.3   The Quadratic Formula
          5.3.1 Derivation of Quadratic Formula
          5.3.2 Problems Involving Quadratic Equations

Unit-6   :   MATRICES AND DETERMINANTS
6.1   Introduction
6.2   Types of Matrices
6.3   Addition and Subtraction of Matrices
          6.3.1 Add and Subtract Matrices   6.3.2 Laws of Addition of Matrices
          6.3.3 Additive Identity of Matrices 6.3.4 Additive Inverse of a Matrix
6.4   Multiplication of Matrices
          6.4.1 Associative Law of Matrices with respect to Multiplication
          6.4.2 Distributive Laws
          6.4.3 Commutative Law   6.4.4 Theorem
6.5   Multiplicative Inverse of a Matrix
          6.5.1 Determinant Function
          6.5.2 Evaluate Determinant of a Matrix
          6.5.3 Singular and Non-Singular Matrices
          6.5.4 Adjoint of a Matrix   6.5.5 Multiplicative Inverse
          6.5.6 Inverse of a Non-Singular Matrix
          6.5.7 Verify $(AB)^{-1} = B^{-1} A^{-1}$
6.6   Solution of Simultaneous Linear Equations Matrix Inversion Method /
          Cramer's Rule

Unit-7   :   FUNDAMENTALS OF GEOMETRY
7.1   Properties of Angles
          7.1.1 Adjacent, Complementary and Supplementary Angles
          7.1.2 Vertical Angles
          7.1.3 Calculate unknown Angles

           7.1.4 Calculate unknown Angles of a Triangle

    7.2   Parallel Lines

           7.2.1 Properties of Parallel Lines   7.2.2 Transversal

           7.2.3 Relation between the Pairs of Angles

    7.3   Congruent and Similar Figures

           7.3.1 Congruent Figures   7.3.2 Symbol ()

           7.3.3 Properties of Congruency

    7.4   Congruent Triangles

    7.5   Quadrilaterals

           7.5.1 Properties of Congruency

           7.5.2 Opposite Sides of a Rectangle are Equal

           7.5.3 Properties of a Parallelogram

    7.6   Circle

           7.6.1 Circle   7.6.2 Sector

           7.6.3 Properties of Angles   7.6.4 Applications

Unit-8 :   PRACTICAL GEOMETRY

    8.1   Construction of a Triangle

           8.1.1 Construction   8.1.2 Angle Bisectors of a Triangle

    8.2   Construction of Quadrilaterals

           8.2.1 Rectangle   8.2.2 Square

           8.2.3 Parallelogram

    8.3   Tangent to the Circle

           8.3.1 Locate the Centre of the Circle

           8.3.2 Draw a Circle Passing through three Non-collinear Points

           8.3.3 Tangent to a Circle

           8.3.4 Drawing Tangent to two Equal Circles

           8.3.5 Drawing Tangent to two Un-Equal Circles

           8.3.6 Drawing Tangents

Unit-9 :   AREAS AND VOLUMES

    9.1   Pythagoras Theorem

    9.2   Area

           9.2.1 The Area of a Triangle

           9.2.2 Areas of Rectangular and Square Fields

           9.2.3 Area of a Circle   9.2.4 Area of Concentric Circles

    9.3   Volumes

Unit-10 :   INTRODUCTION TO COORDINATE GEOMETRY

    10.1   Distance Formula

           10.1.1 Distance between Two Points

           10.1.2 Use of Distance Formula

    10.2   Collinear Points

           10.2.1 Collinear Points

           10.2.2 Collinear and Non-Collinear Points

           10.2.3 Collinearity of three Points

           10.2.4 Use of Distance Formula (for the Non-Collinear Points)

• ANSWERS   • GLOSSARY   • SYMBOLS   • INDEX

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GENERAL SCIENCE

Part – I	75 Marks
Part – II	75 Marks
Total	**150 Marks**

Part-I (Class-IX)	**Marks: 75**	**Time: 2:30 Hours**

Chapter-1 : Introduction and Role of Science

1.1 Introduction to the history of Science and Islamic injection of knowledge with special reference to the contribution by Muslim and Pakistani Scientists in the fields of Science.

1.2 Branches of Science and their inter relationship.

1.3 Role of Science and Technology and its impact for bringing improvement in the quality of life.

1.4 Limitations.

Chapter-2 : Our life and Chemistry

2.1 Description of three basic elements such as C, H_2, and O_2. Explanation of photosynthesis and respiration.

2.2 Explanation of different allotropic forms of carbon; types of carbon compounds and their abundance in nature.

2.3 Properties of water as a solvent, density of water and ice.

2.4 Composition of air and role of the constituents in the properties of air. Rare gasses and their uses.

2.5 Importance and application of elements like Na , K, Mg, P. Fe, Cl, I, F, for the maintenance of our health, agriculture and daily life.

Chapter-3 : Biochemistry and Biotechnology

3.1 Definition of Metabolism. A brief description of Metabolism and fate of Carbohydrates, fats and proteins in human body, Enzymes and role in our daily life.

3.2 What are Enzymes? Their role in Metabolism. Definition of Enzymes and role in our daily life.

3.3 Blood and its function.

3.4 DNA as hereditary material.

3.5 Genetic Engineering.

3.6 Improvement of crops and control of crop diseases.

3.7 Antibiotics and Vaccines.

3.8 Recycling of waste and scarce materials.

Chapter-4 : Human Health

4.1 Major components of food.

4.2 Food and Energy. Energy requirements regarding age, sex, body size, climate and working conditions.

4.3 Balanced diet for babies, young, old, pregnant and feeding mothers.

4.4 Definition of Nervous System with reference to Endospermic Glands.

4.5 Description of different stages of life.

4.6 Importance of exercise for physical fitness, healthy living and as a measure against obesity.

4.7 First aid and its administration.

Chapter-5 : Diseases, Causes and Prevention

5.1 Diseases, their causes i.e Virus, Bacteria, Parasites, Germs, etc and preventive measures.

5.2   How do Germs spread?

5.3   Protection from Germs and diseases caused by them.

5.4   Smoke, smoking and ill health. Different diseases caused by smoke & smoking.

5.5   Mental illness, its cure.

5.6   Difference between Drugs, Medicines and Narcotics, their uses and abuses on Society.

Chapter-6   :   Environment and Natural Resources

6.1   The atmosphere, and its different layers. Description of Green House effect and its importance. Different climatic patterns.

6.2   Different kinds of Pollution and their reduction. Effect of Pollution on House life.

6.3   Different kinds of Minerals and Fossil Fuels, their occurrence and uses. Need for conservation of natural resources.

6.4   Briefly discuss the crops and fruits of Pakistan. Production trends in principal crops; mechanization of agriculture, new implements.

6.5   Different dairy and poultry products and methods for their improvement.

6.6   Importance of wildlife, national parks, conservation of wildlife and endangered species.

6.7   Effects of rising production on environment, poverty and quality of life.

Part-II (Class-X)	**Marks: 75**	**Time: 2:30 Hours**

Chapter-7   :   Energy

7.1   Introduction of Energy and its form.

7.2   Energy demands and different methods of acquiring Energy.

7.3   Development of new Energy resources. Explain different sources of Energy. Conventional and non-conventional.

7.4   Know how the Energy is measured. Methods and units of measurement of Energy and its uses.

7.5   Energy and the environment, specially with respect to thermal pollution and nuclear fuel hazards. Steps to minimize them.

7.6   Energy conservation. Conservation of Energy at home, school, industries, etc.

Chapter-8   :   Current Electricity

8.1   Introduction and description of various concepts relating to current Electricity.

8.2   Components of Circuits. Their working and use in electrical circuits.

8.3   Direct and alternating Current... introducing purposes along with their measures.

8.4   Process of Electric supply for domestic purposes along with their measures.

8.5   Electric shocks, burns, fire, explosion and safety precautions against them.

8.6   Introduction ammeter, voltmeter, multi meter, analogue and digital meter & their uses.

Chapter-9   :   Basic Electronics

9.1   Basic working principle semi-conductor diode.

9.2   Description of Radio waves, Radio systems, Television, Cable and Satellite TV.

9.3   Computers, microprocessors, their importance and uses in different

fields.

9.4 Description of Information Technology, elaborate with simple example, Communication systems.

Chapter-10 :   Science and Technology

10.1 Description of the advancement of Science and Technology for the development of the country.
Function and uses of Laser Optical fiber system Satellites and Radar etc.

10.2 Simple introduction to radioactivity, properties, uses of radiations emitted by radio active substances and Radio Isotopes in various fields (health, agriculture, etc).

10.3 X-rays, Ultrasound, ECG, EEG, MRI, CT Scan, Angiography.

10.4 Some important Industries of Pakistan. Use of technology in some important Industries of Pakistan.

Chapter-11 :   Space and Pakistan Nuclear Program

11.1 Space exploration and its benefits to Science and Technology.

11.2 Pakistan's Space Programme (SUPARCO)

11.3 Pakistan's Nuclear Programme.

11.4 Dengue Fever

Prescribed Book: General Science
Authors: Prof. Nazir Ahmad Chughtai   Prof. Dr. Javid Iqbal
                       Prof. Dr. Ijaz Rasoul   Dr. Mahmood-ul-Hassan
                       Prof. Mrs. Rizwana Chima   Prof. Muhammad Nisar
                       Miss Suryya Usmani (R)   Mr. Aamir Raza
                       Dr. Capt. Muhammad Akhtar Baig
Published by: Naseer Sons, Lahore
          For: Punjab Text Book Board, Lahore

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CIVICS

Part – I	75 Marks
Part – II	75 Marks
Total	**150 Marks**

Part-I (Class-IX)	Marks: 75	Time: 2:30 Hours

Chapter-1 : **INTRODUCTION TO CIVICS**
Definition
Nature
Significance

Co-relation with:	Sociology	Economics
	Ethics	History

Chapter-2 : **INDIVIDUALS IN INTERACTION**
1. Civic relationships in the following groups:

Family	Nation	Community
Unman	Society	

Chapter-3 : **STATE**
1. Definition:
2. Constitutional Elements of State/Islamic State;
3. Functions of Islamic State;
4. Role of Mass Media in a Welfare State with reference to I.T.;

Chapter-4 : **GOVERNMENT**

1.	Definition	2.	Significance
3.	Executive	4.	Legislature
5.	Judiciary	6.	Democracy
7.	Dictatorship	8.	Good Government and Welfare State

9. Government's role and functions in Islamic perspective

Chapter-5 : **CITIZEN AND CITIZENSHIP**
1. Definition of Citizen & Citizenship.
2. General characteristics of good Citizenship.
3. Nature and Significance of Citizenship in Islamic perspective

Part-II (Class-X)	Marks: 75	Time: 2:30 Hours

Chapter-6 : **RIGHTS AND RESPOBSIBILITIES**
1. Definition of Citizens and Citizenship
2. Rights and Responsibilities with special reference to 1973 Constitution
3. Fundamental' Human Rights
4. Rights and responsibilities in an Islamic State
5. Human Rights violation

Chapter-7 : **IDEOLOGY OF PAKISTAN AND PAKISTAN MOVEMENT**
1. Meaning and Nature of Ideology of Pakistan
2. Significance of Ideology of Pakistan for Welfare State
3. National Integrations and cohesion
    i. Sir Syed Ahmad Khan
    ii. Allama Muhammad Iqbal
    iii. Quiad-e-Azam Muhammad Ali Jinnah
    iv. Formation of Muslim League 1906
    v. Muhammad Ali Jinnah's 14 points - 1930
    vi. Lahore resolution - 1940

vii. 3rd June Plan and Emergence of Pakistan

viii. Initial problems forced by Pakistan

Chapter-8   :   CONSTITUTIONAL DEVELOPMENT IN PAKISTAN

1. A brief survey of Constitutional Development in Pakistan.
2. Objective resolution.
3. Salient features of 1956 Constitutions 1962, 1973.
4. Islamic provisions of the 1973 Constitution.

Chapter-9   :   LOCAL GOVERNMENT IN PAKISTAN

1. Meaning of local self-Government.
2. Brief history of local self-Government in Pakistan.
3. Devolution of power plan of Military Regime – an Introduction
4. Structure and functions.

Chapter-10   :   PAKISTAN AND ITS NEIGHBOURS

Introduction to Neighboring Countries Afghanistan, China, Iran, India

Relations with Neighboring Countries.

Prescribed Book:	**Civics for Classes – (IX–X)**
Authors:	Prof. Dr. Sultan Khan , Prof. Khaleema Naz Afridi , Prof. Rahmat Ullah Ch.
Published by:	Khyam Publisher Urdu Bazar, Lahore
For:	Punjab Text Book Board, Lahore

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EDUCATION

Part – I	75 Marks
Part – II	75 Marks
Total	**150 Marks**

Part-I (Class-IX)	**Marks: 75**	**Time: 2:30 Hours**

Chapter-1 : CONCEPTS OF EDUCATION
1. Definitions and meaning of Education
2. General concept view point of Education
3. Islamic Concepts/View point of Education

Chapter-2 : SCOPE AND FUNCTIONS OF EDUCATION
1. Scope of Education as a discipline
2. Function of Education for development of individual and Society

Chapter-3 : HUMAN DEVELOPMENT AND GROWTH
1. Meaning and definition of Development
2. Infancy
3. Early Childhood
4. Childhood
5. Adolescence
   Physical Development   Mental

Chapter-4 : LEARNING
1. Learning (meaning and definition)
2. Biological Factors influencing learning
3. Individual differences in learning

Chapter-5 : HOME, SCHOOL, AND SOCIETY
1. Meaning and definition of Home, School and Society
2. Agencies of education and their relationship
3. Formation of Society
4. Relationship between School, Community and Society
5. Ways to promote Home, School and Community relationship

Part-II (Class-X)	**Marks: 75**	**Time: 2:30 Hours**

Chapter-6 : EDUCATION IN PAKISTAN
1. Aims of Education in Pakistan
2. Types of Education
   – General Education
   – Professional Education
3. Stages of Education
   – Elementary
   – Secondary
   – Tertiary

Chapter-7 : CURRICULUM
4. Meaning and definition of Curriculum
5. Elements of Curriculum
   1. Objectives
   2. Content
   3. Teaching Methodology
   4. Evalution
6. Interrelationship of the various elements
7. Process of Curriculum Development in Pakistan

Chapter-8   :   ORGANIZATION OF SCHOOL ACTIVITIES
      1.   Importance of Co-Curricular Activities in School
      2.   Role of Co-Curricular Activities in the development of an individual
      3.   The Role of Environment in organizing activities

Chapter-9   :   GUIDANCE AND COUNSELING
      1.   Importance and definition of Guidance and Counseling
      2.   Problems of student at school
          – Social Problems
          – Economic Problems
          – Vocational Problems
          – Personal Problems
      3.   Role of guidance and counseling in school

Prescribed Book: Education for classes – IX-X
Authors: Dr. M. Mirza , Abdul Slam Ch , Dr. Khalid Rashid
Published by: Fazal Sons, Lahore
          For: Punjab Text Book Board, Lahore

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ECONOMICS

Part – I	75 Marks
Part – II	75 Marks
Total	**150 Marks**

Part-I (Class-IX)	**Marks: 75**	**Time: 2:30 Hours**

Chapter-1 : INTRODUCTION
Meaning of Economics
   1. Adam Smith   2. Lionel
   3. Alfred Marshall   4. Robbins

Chapter-2 : SUBJECT MATTER OF ECONOMICS
   1. Wants   2. Goods and services
   3. Efforts   4. Utility, Scarcity, Value and Price

Chapter-3 : DEMAND
1. Definition
2. Law of Demand (Graphic representation of the law of Demand)
3. Other factors affecting Demand

Chapter-4 : SUPPLY
1. Definition
2. Stock and Supply
3. Law of Supply with graphic representation
4. Factors affecting Supply

Chapter-5 : MARKET AND PRODUCTION
1. Definition
   i) Market
   ii) Kinds of Market
      a) Perfect and Imperfect Markets
      b) Short and Long Run Markets
2. Production
   i) Importance of Factors of Production
      a) Land   b) Labour
      c) Capital   d) Organization

Chapter-6 : EQUILIBRIUM AND PRICE DETERMINATION
1. Concept of Equilibrium
2. Equilibrium between Demand and Supply

Chapter-7 : ECONOMIC PROBLEMS OF PAKISTAN AND REMEDIAL MEASURES
1. Poverty
2. Illiteracy
3. Agricultural Backwardness
4. Industrial Backwardness
5. Population Pressure and Migration
6. Low per Capita Income

Part-II (Class-X)	**Marks: 75**	**Time: 2:30 Hours**

Chapter-8 : BASIC CONCEPTS
1. Income (Personal and National)
2. G.N.P
3. G.D.P
4. N.N.P per Capita Income, Disposable Personal Income
5. Consumption

6. Savings
7. Investments

Chapter-9   :   MONEY

1. Barter System and its Difficulties
2. Money – its Definitions and Functions
3. Kinds of Money – Metallic, Paper and Credit Money
4. Examples from Pakistan

Chapter-10 :   BANKS

1. Definition
2. Kinds of Banks
3. Central Bank and its Functions
4. Interest Free Banking Examples of Saudi Arabia, Malaysia and Sudan.

Chapter-11 :   TRADE

1. Definitions and differences between foreign and domestic trades.
2. Advantages and disadvantages of foreign trade.
3. Major exports and import of Pakistan.

Chapter-12 :   PUBLIC FINANCE

1. Definition and difference between Public Finance and Private Finance.
2. Budget and its Definition.
3. Public Revenue
4. Expenditure and Public Debt

Chapter-13 :   ECONOMIC DEVELOPMENT

1. Definition of Economic Development
2. Economic Development in:
   a)   Agricultural Sector
   b)   Industrial Sector
   c)   Trade and Banking Sectors
   d)   Development of Communications and Modern Technology.

Chapter-14 :   ECONOMIC SYSTEM OF ISLAM

1. Basic Characteristics of Islamic System.
2. Concept of Zakat, Usher, Charity and their role in poverty alleviation and employment generation.

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PHYSIOLOGY & HYGIENE

Part – I	75 Marks
Part – II	75 Marks
Total	**150 Marks**

Part-I (Class-IX)	**Marks: 75**	**Time: 2:30 Hours**

Chapter-1 : Our food and Eating Habits
    a) Ingredients Carbohydrates proteins, fats, mineral salts vitamins and water
    b) Energy requirements of the cells source of energy, food stuff chemical composition and nature of food stuffs, nutritional requirements.
    c) Balanced diet-quantity (calorific value of food) and quality
    d) Eating habits –regular meal time, hygiene of hands and mouth care of teeth and proper mastication, avoidance of over-eating.

Chapter-2 : Building Materials of Home Body
    a) Protoplasm-Brief outline of physical and chemical nature
    b) Cell-membranes/cytoplasm, and their functions
    c) Tissues-Epithelial, muscular, cartilage and bone
    d) Organs (only definition with few examples)

Chapter-3 : Types of micro organisms
    A brief description of the nature of organisms; included in categories and the environment in which they survive and grow their importance for human beings.
        a) Microbes   b) Viruses
        c) Bacteria   d) Unicellular organisms

Chapter-4 : Digestive system
    a) Digestive organs-External morphology of mouth (Tooth) Tongue, Salivary gland) Gullet Stomach, Intestines (Small and Large) Liver, gall-bladder and pancreas.
    b) Mechanism of digestion,
        i. Digestion in mouth   ii. Digestion in stomach
        iii. Digestion in intestines (Small and Large)
    c) Assimilation of food

Chapter-5 : Circulatory System
    a) Organs-Structure of heart and blood vessels (Arteries, Veins and Capillaries)
    b) Function of heart and blood vessels
    c) Blood-Composition and functions, for example, transportation coagulation and temperature control
    d) Blood transfusion and blood groups

Chapter-6 : Respiratory system
    a) Organs-structure and function of nose, pharynx, trachea, bronchi and lungs (Brief discussion of all except lungs which should be discussed in detail)
    b) Mechanism of respiration.
        i. Breathing (Inspiration   ii. Exchange and
           and expiration)   transportation of gases
        iii. Respiration in tissues-exchange of gases

Chapter-7 : Excretory System
    a) What is excretion
    b) Excretory organs structure of kidney, structure of skin (The structure

of lungs have already been discussed in the respiratory system)

c) Physiology of excretion

    i. The role of kidney in excretion   ii. The role of skin in excretion

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Part-II (Class-X)	**Marks: 75**	**Time: 2:30 Hours**

Chapter-8 :   **Nervous system**

a) Morphology of central nervous system. Brain; Spinal Cord

b) Morphology of the neuron

c) The organization of nerves; Sensory and motor nerves

d) The nerve impulse   e) The reflex action

f) Function of the Nervous System. A brief description of the functions of various segments of brain.

g) Sympathetic and para sympathetic nervous system

h) Sense organs and their functions (Detailed account of eye and ear and briefly mention others)

Chapter-9 :   **Hormones**

The secretion of Hormones from Endocrine Glands. The nature of Hormones. Major functions of following Hormones.

a) Growth of Hormones   b) Thyroxin

c) Insulin   d) Adrenalin

Chapter-10 :   **Support and Locomotion**

a) Functional morphology of muscle, cartilage and bone

b) Skeleton (in practical only)

c) Health of bones-role of calcium, phosphorus and vitamin D

Chapter-11 :   **Physiology of Exercise**

a) Oxygen requirements.   b) Respiratory adjustments

c) Circulatory. System adjustment   d) Metabolic change in muscles

Chapter-12 :   **Hygiene of Living in Rural and Urban Areas**

a) Air. Composition, importance, contamination

b) Water. Composition, importance, sources of water contamination

c) Soil, importance, contamination

d) Houses. Importance of living space, light ventilation and cleanliness

Chapter-13 :   **Principle of personal and community hygiene**

a) Personal-Body cleanliness, eating and drinking, daily movement of bowels, clothing (avoid tight dress, frequently change under clothes and exercise, etc.

b) Community-proper maintenance of public place like parks, hospitals offices, cinemas, etc; proper disposal of wet, and dry refuse. Smoking and spitting at public places, etc, should be discouraged.

Chapter-14 :   **Diseases**

a) Origin

    1. Dietary   2. Metabolic   3. Hereditary

    4. Contagious   5. Parasitic

b) Causative agents

    Virus, Bacteria, Protozoa, Arthropod, Helminthis

c) Common diseases and their preventive measures

    1. Small pox   2. Measles   3. Typhoid

    4. Cholera   5. Chicken pox   6. Rabies

    7. Diphtheria   8. Whooping cough   9. Mumps

    10. Tetanus   11. Malaria   12. Worm

    13. Infection   14. Diarrhea and dysentery

    15. Diseases due to insect infection   16. Skin diseases

Chapter-15 :   Socio-Economic Factors in National health

   a) Male-nutrition, what is malnutrition? Consequences of malnutrition. Contrast between health and physique of poorly fed and well individuals

   b) Infant mortality and child care

   c) Care of elderly people

   d) Stimulants-intoxicants and narcotics; effect of drug addiction on health

SUGGESTED EXPERIMENTS
for Class room demonstrations by teachers only

Experiment No.1   Identification of carbohydrates, proteins and fact by using Benedict's Solution Iodine Solution, Midlon's Reagent and paper

Experiment No.2   Detection of Amylase in saliva and its effect on starch by using iodine method

Experiment No.3   Microscopic study of blood (R.B.C. and W.B.C), using Leishment's Solution

Experiment No.4   Examination of capillary circulation in the web of frog

Experiment No.5

   (a) For study of trachea and lungs, sheep's wind pipe and lungs could be displayed

   (b) Demonstration of the mechanism of respiration (by using bell-jarparchment), Y-shaped glass tube and counting of pulse

Experiment No.6   Demonstration of muscle contraction by at least one of the methods listed below

   (a) Mechanical (Pinching)   (b) Chemical (Sodium Chloride)

   (c) Electrical (Dry cell)

Experiment No.7   Examination of the following prepared slides under the microscopic

   (a) Nerve cell   (b) Muscle cell

   (c) Epithelia cells   (d) Cartilage

   (e) Bone

Experiment No.8   Study of structure of eye and heart by using models, charts and dissection.

Experiment No.9   Study of ear by model of carts or film slides of Transparency

Experiment No.10 Study brain preserved in 4% formulin solution

Experiment No.11 Microscopic examination of polluted water

Experiment No.12 Morphological study of following insects

   (a) Mosquito   (b) Bed bug

   (c) Cockroach   (d) House fly

   (e) Louse

Experiment No.13 Study of human skeleton with help of bones, charts film slides and transparencies

Experiment No.14 (a) Use of clinical thermometer   (b) Lactometer

Experiment No.15 Exhibition of insecticides and gemicides

Experiment No.16 Cleaning of school premises, houses and surroundings

Prescribed Book: Physiology and Hygiene

Authors: Dr. Jamal –ud-Din   Dr. S.A. Wajid

Published by: **Publisher M/S Shaheen Publisher, Lahore**
                      Physiology and Hygiene (English Version)
                      Publisher kitabistan Publishing Co., Lahore
                      Author as in Urdu Version

                   For: Punjab Text Book Board, Lahore

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GEOGRAPHY

Part – I	75 Marks
Part – II	75 Marks
Total	**150 Marks**

Part-I (Class-IX)	**Marks: 75**	**Time: 2:30 Hours**

Chapter-1 UNDERSTANDING GEOGRAPHY
Definition and Nature, The Principle and Spirit, Purposes, Scope and Main Branches of Geography, Natural and Social Sciences, Relationship of Geography with other subjects, Muslims Contribution to Geography, Role of Muslims in the Development of Physical and Regional Geography, Important Geographical Concepts of the Muslims, Prominent Muslim Geographers of Islamic Period

Chapter-2 EARTH AND ITS BASIC CONCERNS
Introduction, Shapes of the Earth, Size of the Earth, Movements of the Earth, Relation of the Earth, Revolution of the Earth, Reasons of the Different Seasons, Lunar and Solar Eclipse, Latitudes and Longituds

Chapter-3 THE EARTH
Structure of the Earth, Effects of Mountains on Human Life, Effects of Plateaus on Human Life, Effects of Plains on Human Life, Elements of Change of the Earth Surface, Internal Agents of Change on Earth Surface, Effects of Earthquakes on Human Life

Chapter-4 OCEANS AND SEAS
Introduction, Effects of Oceans and Seas on Human Life, Movements of Oceans, Types of Oceanic Currents, Causes of Oceanic Currents, Effects of Oceanic Currents

Chapter-5 THE ATMOSPHERE
Introduction, Composition of the Atmosphere, Structure of the Atmosphere, Components of Weather and Climate, Factors Effecting Temperature, Temperature Distribution, Atmospheric Pressure, Types of Winds, Clouds and Types of Clouds, Rain Fall and Types of Rain Fall, Impacts of Climate on Human Life

Part-II (Class-X)	**Marks: 75**	**Time: 2:30 Hours**

Chapter-6 HUMAN GEOGRAPHY
Introduction, Evolution of Human Geography, Branches of Human Geography

Chapter-7 POPULATION
Introduction, Factors Effecting Population Distribution, World Population Distribution and Density, Population Growth and Development

Chapter-8 HUMAN SETTLEMENTS
Introduction, Types of Settlements, Factors Effecting Settlements
Social Problems of Rural & Urban Settlements

Chapter-9 ENVIRONMENT
Introduction, Types of Environment, Components of Physical Environment, Environmental Problems created by Man

Chapter-10 MAP READING
Importance of Maps, Types of Maps, Directions, Scales, Definition of Scales

Prescribed Book:	Geography for Class–(IX–X)
Authors:	Sajjad Hussain Sajjad , Kashif Shafique, Sohail Ahmad Majuka
Published by:	Azad Book Depot, Lahore
	For: Punjab Text Book Board, Lahore

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غذا اور غذائیت

پارٹ۔I	60 نمبر
پارٹ۔II	60 نمبر
پریکٹیکل	30 نمبر

میزان 150 نمبر

وقت 2:00 گھنٹے	پارٹ۔ I (جماعت نہم)	60 نمبر

باب نمبر 1	غذا اور غذائیت کے علم کا تعارف	غذا اور غذائیت کی تعریف اور ان سے متعلقہ اصطلاحات
		غذائیت کا صحت میں کردار غذا کے کام اچھی اور بری غذائیت کی علامات
باب نمبر 2	توانائی اور غذائی اجزا	غذائی اجزا غذاؤں کی توانائی قدر
باب نمبر 3	متوازن غذا	متوازن غذا کی اہمیت، صحت اور غذائی عادات، متوازن غذا کی ترتیب میں تجویز کردہ مقدار، غذائی گوشوارے
باب نمبر 4	غذاؤں کے اجزائے ترکیبی	مختلف غذاؤں کے اجزائے ترکیبی اور غذائیت، مختلف غذاؤں کے اجزائے ترکیبی جاننے کی وجوہات
باب نمبر 5	اشیائے خوردنی کی خریداری اور سٹور کرنا	اشیائے خوردنی کی خریداری، اشیائے خوردنی کو سٹور کرنا

کتاب: غذا اور غذائیت (برائے جماعت نہم)

مصنفین: مس سعیدہ غنی، پروفیسر (ریٹائرڈ)، گورنمنٹ کالج آف ہوم اکنامکس، گلبرگ، لاہور

مسز فرزانہ رضوی، اسسٹنٹ پروفیسر، گورنمنٹ کالج فار ویمن، مدینہ ٹاؤن، فیصل آباد

ایڈیٹر: مسز زبیندہ مشکور، سینئر ماہر مضمون، پنجاب ٹیکسٹ بک بورڈ، لاہور   **ناشر:** آزاد بک ڈپو، لاہور

وقت 2:00 گھنٹے	پارٹ۔ II (جماعت دہم)	60 نمبر

باب نمبر 6	غذاؤں کی تیاری اور پکانے کے طریقے	غذاؤں کی تیاری اور پکانے کے طریقے، باورچی خانے میں حفاظتی اقدامات
باب نمبر 7	خاندان اور معاشرے کی غذائیت	معاشرے کے حساس گروہوں کی غذائی ضروریات، معاشرے میں غذائی قلت کی روک تھام
باب نمبر 8	انتظام طعام	انتظام طعام کے اصول، مختلف معاشی طبقات کے لیے فہرست طعام (مینو) بنانا، زندگی کے مختلف ادوار کے لیے فہرست طعام (مینو) بنانا، مختلف تقاریب کے لیے فہرست طعام (مینو) بنانا
باب نمبر 9	میز لگانا اور کھانا پیش کرنا	کھانا پیش کرنا اور میز لگانا، کھانا کھانے کے آداب و طور طریقے
باب نمبر 10	غذاؤں کو محفوظ کرنا	غذاؤں کو محفوظ کرنا، غذاؤں کا خراب ہونا، غذاؤں میں آمیزی اجزا، عملی کام، فرہنگ

کتاب: غذا اور غذائیت (برائے جماعت دہم) پارٹ ـ II

مصنفین: مسز فرزانہ رضوی، اسسٹنٹ پروفیسر، گورنمنٹ کالج فار ویمن، مدینہ ٹاؤن، فیصل آباد

مس سعیدہ غنی، پروفیسر (ریٹائرڈ)، گورنمنٹ کالج آف ہوم اکنامکس، گلبرگ، لاہور   **ناشر:** آزاد بک ڈپو، لاہور

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MILITARY SCIENCE

Part – I		75 Marks
Part – II		75 Marks
Total		**150 Marks**

Part-I (Class-IX)	**Marks: 75**	**Time: 2:30 Hours**

PART I – GENERAL

War in General
 a) Cause of War
 b) Conflict of interest between states/societies
 c) Survival of the fittest

War and Diplomacy
 a) War is a continuation of diplomacy
 b) Wars must serve political and diplomatic aims

Military Terminology Application of Science
 a) Period prior to industrial revolution   b) After industrial revolution
 c) Nuclear era   d) Future trends

Miscellaneous
 a) Badges of rank in the three services.
 b) Distinctive features of the uniforms of the three services.
 c) Pay-Scales.
 d) Messing/Residential/Medical Facilities

PART II – PAKISTAN ARMY

Functions of the Army Organization
 a) Battalion/Regiment and sub-units of different arms and Services.
 b) Brigade.

Training
 a) Importance of Training.
 b) Training of officers at P.M.A. and other schools.
 c) Training of other Ranks.   d) Training in Units.
 e) Collective Training

Fire and Movement Patrolling
 a) Aim of Patrolling   b) Types of Patrolling

Arms and Equipment
 a) Rifles   b) Machine Guns
 c) Mortars   d) Guns
 e) Tanks   f) Armoured Personnel Carriers
 g) Anti-tank Weapons   h) Wireless Equipment and Codes
 i) Field Telephone   j) Vehicles including recovery vehicles
 k) Helicopters, including armed helicopters   l) Light observation aircrafts
 m) Radar   n) Mines
 o) Anti-tank weapons.   p) Long Range Rockets

PART III – PAKISTAN NAVY
SECTION I

INTRODUCING THE SUBJECT OF THE SEA, SHIPS AND SAILORS
 a) A General Introductory lecture on sea, ships and the men who stay at sea
 b) Names of Oceans & important seas – Different categories of ships: Merchant, Passenger, Fishing and Fighting ships and their mode of propulsion, old and new.

c) Highlight adventure and thrill experienced at sea

IMPORTANCE OF THE SEA
a) Uses of the sea-General importance in its effect on weather, rain
b) Means of transportation and trade
c) Means of communication between nations
d) Resource for food
e) Resource for minerals and metals and chemicals
f) Use as a battle ground
g) Recreation and development of human character-swimming, sailing, diving etc

KNOWLEDGE OF THE SEA ENVIRONMENT AND COAST OF PAKISTAN
a) Coastline of Pakistan.
b) Karachi and small harbours along with coast, new development.
c) Off shore sea area, high-seas general description, depths etc.

IMPORTANCE OF SEA TO PAKISTAN
a) Almost total dependability for imports/exports
b) Fish catch for own consumption and export.
c) Recovery of minerals-oil drilling in progress etc
d) Direct communications with Muslim countries etc
e) Enemy threat can come from this direction

SECTION II
ORGANIZATION OF PN
a) Organization or Naval Headquarters & MHQ
b) Organization of Principal support facilitates e.g. Dockyard NSD, Wireless Stations Clifton/Landhi, Floating Dock Graving Dock etc
c) Organization of Fleet
d) Service Structure Rank/Role Structure – Trade/profession

TYPES OF NAVAL CRAFTS & WARFARE TACTICS
a) Petrol Crafts   Gun goats, Torpedo Boats, Missile Boats, Hydro oil Hoover crafts
b) Mine Sweepers   Ocean going/coastal inshore
c) Frigates   A/A, A/D, A/S
d) Destroyers   Brief Idea
e) Cruisers   Brief Idea
f) Aircrafts carriers
g) Fleet tankers
h) Ocean going Tugs/PNS Madadgar (Salvage ships)
i) Floating Docks
j) Auxiliary vessels
k) Submarine   –Ocean going large –Medium
     –Midgets   –Chariots
l) Landing crafts   –LST   –LCM   –LCVP

SECTION III
NAVAL ARMAMENT, WEAPON SYSTEM AND BASIC NAVAL WAR TACTICS
a) Naval   –ultra high muzzle Velocity –Long range
     –Flat trajectory   –Dual purpose
     –/A/A and Anti/ship small colliber; high rate of fire
b) Naval Missile   –Antiship Missile   –AGROC
c) Torpedo   –Conventional & Homing
d) Anti-Submarine   –LIMBO-A/S Mortar   –Headgehog
     –Depth Charge   –Homing Torp/ASROC
e) Mines   –Contact   –Magnetic
     –Acquestic   –Pressure

SECTION IV
SIMPLE EXPLANATION OF MARITIME STRATEGY

a) Offensive Component;   1. Submarines
Offence is the best defence   2. SSG Navy
                                 3. Mining of Enemy water

b) Defensive   1. Maritime Reconnaisance
                                 2. Helicopter/Destroyer Hunter Killer operation
                                 3. Deployment of surface Fleet

c) Harbour Defence/Boom Defence
d) Qasim Fort, Battery (Coastal)
e) Surveillance centres-Radar Early Warning
f) Defensive Mining
g) Beach/Coastal obstructions to seaward landings
h) Gunboat, deployment-Anti OSA Role
i) Hydrofoils Deployment-Anti ship Role

SECTION V
INTRODUCTION TO NAVAL EQUIPMENT

a) Diving Suit/Deep diving   b) Diving Equipment-Skin Diving
c) Depth change   d) Radar
e) Periscope   f) Sonar

| **Part-II (Class-X)** | **Marks: 75** | **Time: 2:30 Hours** |

PART 1 – GENERAL

Leadership
a) Definition of Leadership
b) Qualities of a good Leader
c) Leadership Traits
d) How Leadership can be developed
e) Selected Biography of one Commander

Military Geography
a) Pakistan   b) India
c) Afghanistan

Military History
a) History of war on Land, Air & Sea   b) Evolution of methods of warfare
c) Study of one campaign   d) Some principles of war

Discipline and Morale
a) The stresses of war   b) The role of Discipline and Morale
c) The role of leadership, training, motivation etc. in promoting Discipline and Morale

Military Methodology
a) Appreciation   b) Battle Procedure
c) System of Giving Orders

Theorists of War
a) Ancient theorists   b) Modern theorists
c) Communist theorists

Security and Intelligence
a) Psychological Warfare aimed at the minds of the enemy in order to strike at his morale
b) The role of motivation and dissemination of information to counter Psychological Warfare
c) Security of Personnel against subversion
d) Security of information against espionage
e) Security of material against sabotage

f) Acquisition of information/intelligence about enemy:
   (i).Strength/weaknesses
   (ii).Dispositions
   (iii).Plans Intention
g) Methods employed to gain information about the enemy and to deny the same to the enemy

Nuclear/Biological and Chemical Warfare
a) Fission and Fusion
b) Effects of nuclear explosion – blast, beat and radiation. Radio-active fall-outs and their effects
c) Use of germs and bacteria in warfare; protective measure
d) Use of chemical agents such as gases etc. as a lethal means in war, protective measures

PART II - PAKISTAN ARMY

Operations of War
a) Attack   b) Defence

Raids and ambushes
a) Raids   b) Ambushes

Camouflage
a) Why thing are visible   b) Camouflage against ground observer
c) Camouflage against air

Obstacles
a) Obstacles a barrier to movement b) Natural obstacles
c) Artificial obstacles   d) How to overcome obstacles

Map Reading
a) Conventional Signs   b) Scales
c) Grids   d) Representation of Relief
e) Directions   f) Use of maps
g) Recognition of Stars

PART III – PAKISTAN NAVY
SECTION I

GEOGRAPHICAL IDEA OF SEA AND LAND SURFACE OF EARTH
a) Areas covered by sea and land 7/10ths surface is covered by water
b) Comparison of weather conditions of both-rain storms, clams
c) Ocean depths, currents & streams
d) Botanical and biological life in the sea

HIGH IMPORTANCE OF THE INDIAN OCEAN
a) General description of India Ocean-Arabian sea, Oil Gulf, Red sea, Other parts
b) Mostly inhabited by Muslims
c) Passage of very important oil cargo through Indian Ocean
d) Most of the Third World-Afro-Asian block countries situated on the periphery of Indian Ocean
e) Military uses of Indian ocean by big powers

ROLE OF THE SEA IN WORLD HISTORY AND DEVELOPMENT OF NATIONS
a) General description of maritime achievements and supremacy of nations
b) Ancient times-Phoenicians Chinese, Pre-Islamic Arabs, Romans
c) Middle Ages-Muslims, Turkey and Spain, Portugal Holland
d) Advantages and qualities imbided by sea faring peoples
e) Economic and commercial prosperity facilitated by sea
f) Comparison between coastal and land locked stars

ASSOCIATION OF MUSLIM WITH THE SEA AND THEIR ROLE IN DEVELOPMENT OF SEA CRAFT

a) With the rise of Islam spirit of adventure and learning brought Muslims closer to sea

b) Early sea expeditions by Muslims – times of Umar. Muawiys and other campaigns & conquests in Eastern Mediterranean Islands Indian Ocean. West coast of India. Western Mediterranean Spain etc. Persian Gulf, Red sea

c) Emphasis on campaigns of Muhammad Bin Qasim and Tariq bin Zaid. Ibne Qasim arrived by land but reserve support arrived by sea expedition; he also left by sea. Tariq made amphibious landing and burnt the boats

d) Development of Navigation and sea craft by Muslims during 8th to 16th century

e) Navigation basically dependent upon geography Mathematics and Astronomy which were highly developed by Muslims. In addition Muslims developed optics, sail making and boat building

f) Indian Ocean and Mediterranean Sea vastly influenced by Muslims. Muslim settlements in coastal areas and Islands spread throughout seas

g) Sea trade between Persian Gulf and North Africans passing round the Cap of Good Hope was in progress long before Vascoda Gama passed that way. Even Vascoda Gama had a Muslim Cartographer & navigator for his voyage

h) Importance crew members including a Navigator of Columbus were Muslims on his voyage to America

i) Recent evidence unearthed that Muslims from North Africa were sailing to America in century hundred years before Columbus reached there

LIFE DEEDS OF A GREAT MUSLIM NAVAL PERSONALITY

a) Life of Khairuddin Barbarossa

b) His objectives of saving Moorish Muslims from Spanish persecution of preventing Christian powers conquest of North African Muslim states and of wresting, maritime control of Mediterranean from Spain

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DETAILED FUNCTIONS OF THE NAVY
SECTION II

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a) General surveillance and supervision of our cost and territorial waters to prevent irregularities, encroachments etc. and to exert our own right of seabed exploitation, fisheries etc

b) Survey of our coast and waters. Work done by PNS Zulfiqar

c) Assist the Government in development of ports and harbours Bandur Qasim Guadars Ormara etc

d) Aid to Civil Government in management and operations of Harbour and coastal facilities during strikes/disturbances running of Karachi port Trust, manning tug boats pilot duties etc

e) Disaster Relief work, during floods, heavy rains etc

f) Salvage/Diving work, services rendered by PN Divers at Davns, Barrages Harbour operations

g) Rescue at sea-towing of Pakistan or foreign Ships stranded in our waters, rescue of cress etc. during emergencies on shops at sea off or coast

h) Provide logistic and repair/maintenance facilities of PN Dockyard to friendly Navies, Iran Arab states, Egypt have used our services

i) Administrative operational and training assistance to friendly and Muslim countries – training of their naval officers and men helping them in building up their navies

j) Cooperation with Army and Air force-training, survival and rescue at sea SSG waterman ship.

k) Assistance in development of Pak Merchant Navy – Training administration etc

l) Promotion of Pakistan's policies in development of friendly relations with foreign countries – good will cum operational visits, description of major visits to Oil Gulf, Red Sea, South Indian Ocean, East Africa, South East Asia

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SECTION VII
SOME HISTORICAL SEA ENGAGEMENTS AND OPERATIONS

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a) Battle of Preveza between Ottaman and Combined Spanish Italian fleets which decide maritime supremacy of Turks in the Mediteranean

b) Inadequacy of sea power of Mughals in India – a reason of their downfall. Attempts of Build up Sea power by Hyder Ali and Tipu Sultan. Dwarka Operation by Pakistan Navy in 1965. Sinking of Indian Frigate by PN submarine in 1971

c) Campaign of Gallipoli against the Turks-failure of British

d) Normandy landings during World War II

e) Japanese attack on Pearl Harbour

PART IV PAKISTAN AIR FORCE

1	Function of the Air Force	2	Training
3	Organization	4	Development of Air Power
5	Types of Aircraft	6	Armament
7	Air Defense	8	Bomber Force
9	Tactical Air Force	10	Maritime Air Force
11	Air Transport Force	12	Air Reconnaissance
13	Effectiveness of Air Power in Different types of Terrain	14	Japanese Surprise Attack on Pearl Harbour.
15	Battle of 'D' —Day. 6th June, 1944	16	Arab-Israel Wars

Prescribed Book: Military Science for Class–(IX–X)

Authors: Lt. Cdr. Zahur Ahmad , Major Muhammad Ali , Flt. Lt. Ghulam Yasin Butt , P.A.F. Academy, Risalpur

Published by: Malik Siraj Din & Sons, Kashmiri Bazar, Lahore.

For: NWFP Textbook Board, Peshawar.

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تاریخِ پاکستان

75 نمبر	پارٹ۔I
75 نمبر	پارٹ۔II

میزان 150 نمبر

75 نمبر	پارٹ۔ I (جماعت نہم)	وقت: 2:30 گھنٹے

9۔ ہندوستان میں مغلیہ حکومت کی ابتدا (ظہیرالدین بابر)	1۔ وادیِ سندھ کی قدیم تہذیب
10۔ نصیرالدین ہمایوں	2۔ دیدوں کا آخری دیدار
11۔ شیر شاہ سوری	3۔ ہندو راجاؤں کی حکومت کو دور
12۔ مغلیہ حکومت کا استحکام (جلال الدین محمد اکبر)	4۔ ہندوستان میں مسلمانوں کی آمد
13۔ نوری الدین محمد جہانگیر	5۔ دورِ انتشار
14۔ شہاب الدین محمد شاہ جہان	6۔ ہندوؤں میں مسلمانوں حکمرانوں کی وسعت پسندی
15۔ اورنگ زیب عالمگیر	7۔ غیاث الدین تغلق
16۔ بادشاہوں کے دور میں تہذیب اور علم فنون	8۔ سلاطینِ دہلی کی حکومت زوال کی طرف

75 نمبر	پارٹ۔ II (جماعت دہم)	وقت: 2:30 گھنٹے

25۔ تحریک قیام پاکستان	17۔ ہندوستان میں یورپی اقوام کی آمد
26۔ حصولِ پاکستان	18۔ مذہبی و اخلاقی تحریکیں
27۔ آزادی کے فوراً بعد پاکستان کی مشکلات	19۔ سر سید احمد خان
28۔ پاکستان کا ابتدائی دور (اگست 1947 تا اکتوبر 1958)	20۔ تقسیم بنگال
29۔ ایوب خان کا دورِ حکومت	21۔ مسلم لیگ کا قیام اور جداگانہ انتخاب
30۔ ذوالفقار علی بھٹو	22۔ ہندوؤں مسلم اتحاد کی کوششیں
31۔ جنرل محمد ضیاء الحق	23۔ آئینی مسائل اور ہندو مسلم اختلافات
32۔ مشاہیرِ پاکستان	24۔ کانگریسی وزارتیں

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ENGLISH (Literature)

Part-I (Class-IX)	Marks: 75	Time: 2:30 Hours

1. Poetry, 50% of Syllabus
    More poems for young people. Oxford University Press.
    Page No. 1 to 21.
2. Essay and Short Stories, 50% of the syllabus (Short Stories only) Anthology of Essays and Short Stories. West Pakistan Publishing Co. Ltd.
    Page No. 1 to 45
3. Play
    The Winslow Boy by Terence Rathingen Modern Plays for Students.

Part-II (Class-X)	Marks: 75	Time: 2:30 Hours

1. Poetry, 50% of Syllabus
    Page No. 22 to 50
2. Essay and Short Stories, 50% of the syllabus (Essay only) Anthology of Essays and Short Stories. West Pakistan Publishing Co. Ltd.
    Page No. 46 to 91
3. Novel
    Great Expectations by Charles Dickens.
    The Ideal House 194, Anarkali, Lahore

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اردو(اختیاری)

75 نمبر	پارٹ۔I
75 نمبر	پارٹ۔II

میزان: 150 نمبر

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75 نمبر	پارٹ۔ I (جماعت نہم)	وقت: 2:30 گھنٹے

صفحہ نمبر102	ابتدائی سائنس	سرگزشت آزاد بخت پادشاہ کی صفحہ نمبر7	حصہ نثر:
صفحہ نمبر236	نواب مرزاخان داغ	صفحہ نمبر223 میر درد	غزل:
عبادت صبح تاا کبر الہٰ آبادی رباعیات صفحہ نمبر202	محسن کاکوروی صفحہ نمبر182		نظم:
	تشبیہ، استعارہ، مجاز مرسل، کنایہ، مطلع، مقطع، قافیہ رادیف، صنعت تضاد، صنعت تکرار، حسن تعلیل، مراعات النظیر اور		گرامر:
	صنعت تجنیس		

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75 نمبر	پارٹ۔ II (جماعت دہم)	وقت: 2:30 گھنٹے

صفحہ نمبر178	خطوط از محمد علی ادولوی	کلید کامیابی صفحہ نمبر104	حصہ نثر:
صفحہ نمبر247	ناصر کاظمی	علامہ اقبال صفحہ نمبر238	غزل:
صفحہ نمبر219	ناصر کاظمی	علامہ اقبال صفحہ نمبر203	نظم:
	علمی و ادبی اور سوانحی موضوعات		مضمون نگاری:

بستان ادب (اردو اختیاری)	مجوزہ کتاب:
پروفیسر طلعت نایاب زیدی، پروفیسر امجد علی شاکر، اشتیاق احمد	مصنفین:
ویسٹ پاک پبلشنگ لمیٹڈ، لاہور۔	ناشر:

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آرٹ اینڈ ماڈل ڈرائنگ

پارٹ۔I	40 نمبر
پارٹ۔II	40 نمبر
پریکٹیکل	70 نمبر

میزان: **150** نمبر

40 نمبر	پارٹ۔ I (جماعت نہم)	وقت: 1:30 گھنٹے

(1) فائن آرٹس Fine Arts

1.3 ڈرائنگ	1.2 فن مصوری	1.1 آرٹ کی اقسام
1.6 آرٹ اور ڈرائنگ میں استعمال ہونی والی اشیاء	1.5 ماڈل ڈرائنگ	1.4 مصوری اور ڈرائنگ میں فرق
1.9 کاغذ	1.8 برش	1.7 پنسل
1.12 رنگ گھولنے کی پلیٹ	1.11 رنگ گھولنے کی پلیٹ	1.10 ربڑ
1.15 ڈرائنگ بورڈ	1.14 ڈرائنگ بکس	1.13 رنگ

(2) آرٹ کے بنیادی عناصر اور اصول Basic Elements and Principles of Art

2.3 ترکیبی عناصر کی تفصیل	2.2 جمالیاتی عناصر	2.1 ترکیبی عناصر
		2.4 جمالیاتی عناصر کی تفصیل

(3) سٹل لائف یا ماڈل ڈرائنگ Still Life or Model Drawing

3.3 ماڈل کے خاکے میں شیڈ کرنا	3.2 صراحی اور پیالے کی ماڈل ڈرائنگ بنانا	3.1 ماڈل کو ڈرائنگ بنانے کے لیے تیار کرنا
3.6 مشقی سوالات	3.5 ماڈل ڈرائنگ	3.4 پریکٹیکل ورک

(4) کمپوزیشن Composition

4.3 اجزائے منظر کو ترتیب دینا	4.2 قدرتی مناظر	4.1 کمپوزیشن کی تعریف
4.6 مختلف مناظر	4.5 رنگ کرنے کے مراحل	4.4 رنگ کرنا
		4.7 مشقی سوالات

(5) ڈیزائن Design

5.3 ڈیزائن کے اصول	5.2 ڈیزائن کے ترکیبی عناصر	5.1 ڈیزائن کی تشریح
5.6 ٹیکسٹائل ڈیزائن	5.5 تبدل اور شعاع	5.4 تکرار اور تبادل
5.9 ڈیزائن چھاپنے کے طریقے	5.8 ٹائٹل ڈیزائن	5.7 بارڈر ڈیزائن
5.12 سپرے پرنٹنگ	5.11 ڈیزائن	5.10 سٹینسل سے چھپائی کرنا
	5.14 مختلف ڈیزائن	5.13 بلاک یا ٹھپے سے چھپائی کرنا

40 نمبر	پارٹ۔II (جماعت دہم)	وقت 1:30 گھنٹے

(6) فنون لطیفہ کی تاریخ　**History of Art**

6.3 فن خطاطی　　6.2 پاکستانی فنون لطیفہ　　6.1 مغل بادشاہ اور فنون لطیفہ

(7) وادی سند کی تہذیب　**Indus Vally Civilization**

7.3 شہری منصوبہ بندی　　7.2 ہڑپہ　　7.1 موہنجوداڑو

7.6 مجسمہ سازی　　7.5 کوزہ گری اور کھلونے　　7.4 مہریں اور سکے

7.7 زیورات

(8) گندھارا آرٹ　**Gandhara Art**

8.3 منصوبہ بندی　　8.2 گندھارا کا فن تعمیر　　8.1 مجسمہ سازی

مشقی سوالات　　8.5 اینٹ، چونے اور لکڑی کا استعمال　　8.4 اسٹوپا

(9) پاکستان کا فن تعمیر　**Architecture of Pakistan**

پس منظر

9.1 مغلوں سے پہلے کا فن تعمیر

(ii) سندھ کا طرز تعمیر　　(i) ملتان کا طرز تعمیر

9.2 مغلیہ دور کا طرز تعمیر

(i) شاہی قلعہ

(iii) شالامار باغ　　(ii) بادشاہی مسجد

(vi) جامعہ مسجد ٹھٹھہ　　(v) مسجد وزیر خاں　　(iv) مقبرہ جہانگیر

(vii) مسجد مہابت خان

LIST OF PRACTICALS FOR CLASS-X (PART-II)

Practical has three sections, candidate may choose any one from these. Only outline knowledge is expected for general understanding and appreciation of our heritage.

(a)　Drawing from life on still life Test of Drawing & painting

OR

(b)　Composition (Expressional Test of Imagination painting)

OR

(c)　Design (Two-dimensional) Test of Imagination.

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فارسی

پارٹ۔I		75 نمبر
پارٹ۔II		75 نمبر

میزان: 150 نمبر

کل نمبر:75	پارٹ۔I(جماعت نہم)	وقت:2:30 گھنٹے

سوال نمبر1: معروضی حصہ کا وقت 20 منٹ ہو گا جس میں 15 سوالات 15 نمبر کے ہوں گے تمام سوالات حل کرنے ہوں گے ہر سوال ایک نمبر کا ہو گا۔ — 15 نمبر

انشائیہ طرز

انشائیہ حصہ کا پرچہ اول اور حصہ دوم پر مشتمل ہو گا جس کے کل نمبر 60 ہوں گے جبکہ وقت 2 گھنٹے 10 منٹ ہو گا

حصہ اول

حصہ اول میں سوال نمبر 3,2 اور 4(چھ سوالات کے مختصر جوابات) — (12+12+12) نمبر

حصہ دوم

سوال نمبر5: پیراگراف کا اردو میں ترجمہ — 14 نمبر

سوال نمبر6: اشعار کا اردو میں ترجمہ اور تشریح — 6+4 نمبر

کل نمبر:75	پارٹ۔II(جماعت دہم)	وقت:2:30 گھنٹے

معروضی طرز

سوال نمبر1: معروضی حصہ کا وقت 20 منٹ ہو گا جس میں 15 سوالات 15 نمبر کے ہوں گے تمام سوالات حل کرنے ہوں گے ہر سوال ایک نمبر کا ہو گا۔ — 15 نمبر

انشائیہ طرز

انشائیہ حصہ کا پرچہ اول اور حصہ دوم پر مشتمل ہو گا جس کے کل نمبر 60 ہوں گے جبکہ وقت 2 گھنٹے 10 منٹ ہو گا

حصہ اول

حصہ اول میں سوال نمبر 3,2 اور 4(چھ سوالات کے مختصر جوابات) — (12+12+12) نمبر

حصہ دوم

سوال نمبر5: پیراگراف کا اردو میں ترجمہ — 14 نمبر

سوال نمبر6: اشعار کا اردو میں ترجمہ اور تشریح — 6+4 نمبر

مجوزہ کتاب: فارسی ادب (نہم و دہم)

مصنفین/ایڈیٹرز: ڈاکٹر خالدہ آفتاب، محمد خان کلیم، غلام معین الدین نظامی، نوازش علی شیخ

پبلشر: آزاد بک ڈپو، لاہور

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عربی

کل نمبر:75	پارٹ۔I (جماعت نہم)	وقت:2:30 گھنٹے

معروضی طرز

معروضی حصہ کا وقت 20 منٹ ہو گا جس میں 15 سوالات 15 نمبر کے ہوں گے تمام سوالات حل کرنے ہوں گے ہر سوال ایک نمبر کا ہو گا۔

انشائیہ طرز

10 نمبر	عربی میں جوابات	سوال نمبر2:
10 نمبر	جملوں کا عربی میں ترجمہ	سوال نمبر3:
03 نمبر	(الف) ترتیب دے کر جملے بنانا	سوال نمبر4:
02 نمبر	(ب) جملوں پر اعراب لگانا	
05 نمبر	(ج) واحد جمع	
10 نمبر	اردو ترجمہ (جز)	سوال نمبر5:
10 نمبر	اردو ترجمہ (اشعار)	سوال نمبر6:
10 نمبر	خط یا درخواست	سوال نمبر7:

کل نمبر:75	پارٹ۔II (جماعت دہم)	وقت:2:30 گھنٹے

معروضی طرز

معروضی حصہ کا وقت 20 منٹ ہو گا جس میں 15 سوالات 15 نمبر کے ہوں گے تمام سوالات حل کرنے ہوں گے ہر سوال ایک نمبر کا ہو گا۔

انشائیہ طرز

10 نمبر	عربی میں جوابات	سوال نمبر2:
10 نمبر	جملوں کا عربی میں ترجمہ	سوال نمبر3:
03 نمبر	(الف) ترتیب دے کر جملے بنانا	سوال نمبر4:
02 نمبر	(ب) جملوں پر اعراب لگانا	
05 نمبر	(ج) واحد جمع	
10 نمبر	اردو ترجمہ (جز)	سوال نمبر5:
10 نمبر	اردو ترجمہ (اشعار)	سوال نمبر6:
10 نمبر	خط یا درخواست	سوال نمبر7:

المطالعۃ العربیہ (براۓ دہم)	المطالعۃ العربیہ (براۓ نہم)	مجوزہ کتاب:
پروفیسر ڈاکٹر ظہور احمد اظہر	پروفیسر ڈاکٹر ظہور احمد اظہر	مصنفین/ایڈیٹرز:
آزاد بک ڈپو اُردو بازار،لاہور	فاران پبلی کیشنز، لاہور	ناشر:

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پنجابی

پارٹ:۔II(جماعت دہم)	پارٹ:۔I(جماعت نہم)

ٹیکسٹ بک حصہ نثر: سبق نمبر8 تا14(صفحہ نمبر43 تا88)   ٹیکسٹ بک حصہ نثر: سبق نمبر2 تا7(صفحہ نمبر9 تا42)

(غازی علم الدین شہید تاہمت کرے انسان تے۔۔۔)   (ذاتِ نبی خَاتَمُ النَّبِیّیٖن صَلَّی اللّٰہُ عَلَیْہِ وَعَلیٰ اٰلِہِ وَاَصْحَابِہِ وَسَلَّمَ دی رحمت جھڑیاں تا ہن کوئی دیوا بلدا)

ٹیکسٹ بک حصہ نظم: نظم16 تا30(صفحہ نمبر120 تا149)   ٹیکسٹ بک حصہ نظم: نظم1 تا15(صفحہ نمبر90 تا119)

کل نمبر:75	نصاب برائے پارٹ۔I(جماعت نہم)	وقت:2:30 گھنٹے

25 نمبر	حصہ نثر	1۔
15 نمبر	حصہ نظم	2۔
10 نمبر	خط/کہانی	3۔
15 نمبر	گرائمر	4۔
10 نمبر	سپلیمنٹری ریڈنگ	5۔
75 نمبر	میزان:۔	

کل نمبر:75	نصاب برائے پارٹ۔II(جماعت دہم)	وقت:2:30 گھنٹے

معروضی طرز

سوال نمبر1: سارے سوالاں دے جوابات دے دتی گئی جوابی کاپی تے لکھو۔ ہر سوال دے 4(چار) ممکنہ جواب A,B,C تے D دتے گئے نیں جہڑے جواب نوں تسیں درست سمجھو جوابی کاپی تے ایس سوال نمبر دے سامنے جز D تے A,B,C سامنے دتے گئے دائریاں وچ اک دائرے نوں پین یا مارکر دی سیاہی نال بھرو۔   15 نمبر

انشائیہ طرز
حصہ اول

سوال نمبر2: تھلے دتے گئے سولاں وچوں کسے ستاں (7) سوالاں دے مختصر جوابات دیو۔   14 نمبر

سوال نمبر3: پنج نقطاں دے واحد دے جمع تے جمع دے واحد لکھو۔   05 نمبر

سوال نمبر4: پنج نقطاں دے مذکر دے مونث تے مونث دے مذکر لکھو۔   05 نمبر

سوال نمبر5: چھ نقطاں دے جملے لکھو۔   06 نمبر

حصہ دوم

سوال نمبر6: اک عبارت دی سوکھی پنجابی وچ تشریح، سبق دا ناں تے لکھاری کا ناں وی لکھو۔   8+1+1 نمبر

سوال نمبر7: کسے اک جز دی پنجابی وچ تشریح کروتے شاعر دا ناں وی لکھو۔   9+1 نمبر

سوال نمبر8: کسے اک عنوان تے پنجابی وچ بھرواں مضمون لکھو۔   10 نمبر

نوٹ:۔ حصہ گرائمر ٹیکسٹ بک میں سے دیا جائے گا۔

پنجابی ادب تے زبان	مجوزہ کتاب:
سید اختر حسین اختر، ڈاکٹر ناہید شاہد	مصنفین:
پاک ایمپریل بک ڈپو، لاہور	ناشر:

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ایڈوانس اسلامک سٹڈیز (اختیاری)

پارٹ۔I	75 نمبر
پارٹ۔II	75 نمبر

میزان 150 نمبر

75 نمبر	پارٹ۔ I (جماعت نہم)	وقت: 2:30 گھنٹے

القرآن	25 نمبر
الاحادیث	10 نمبر
سیرۃ طیبہ	30 نمبر
قواعد عربی	10 نمبر
میزان:	75 نمبر

نصاب کی تقسیم:

(i) القرآن: آیت نمبر 1 تا 10	**(ii)** احادیث: حدیث نمبر 1 تا 12
(iii) سیرۃ طیبہ	**(iv)** قواعد عربی

75 نمبر	پارٹ۔ II (جماعت دہم)	وقت: 2:30 گھنٹے

القرآن	25 نمبر
الاحادیث	10 نمبر
تعلیمات اسلام	30 نمبر
قواعد عربی	10 نمبر
میزان: 75 نمبر	

نصاب کی تقسیم:

(i) القرآن: آیت نمبر 11 تا 19	**(ii)** احادیث: حدیث نمبر 13 تا 25
(iii) تعلیمات اسلام	**(iv)** قواعد عربی

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سیرت طیبہ (برائے جماعت نہم پارٹ۔1)

1- افضل الرسل حضرت محمد خَاتَمُ النَّبِیِّیْنَ صَلَّی اللہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ۔

الف : رسالت کا مفہوم، منصب اور اسکی عظمت

ب : انبیاء عَلَیْہِمُ السَّلَام کی تبلیغی کوشش خاص کر حضرت نوح عَلَیْہِ السَّلَام، حضرت ابراہیم عَلَیْہِ السَّلَام، حضرت موسیٰ عَلَیْہِ السَّلَام اور حضرت عیسیٰ عَلَیْہِ السَّلَام کی مساعی کا مختصر تذکرہ۔

الاحادیث:

بسم اللہ الرحمٰن الرحیم۔

1- راس الحکمۃ مخافۃ اللہ۔   2- اول ما یحاسب بہ العبد الصلوۃ۔

3- الصوم لی وانا جزی بہ۔   4- اتقو النار ولو بشق تمرۃ۔

5- الماھر بالقرآن مع السفرۃ الکرام البررۃ۔

6- آیۃ المنافق ثلاث و ان صام او صلی و زعم انہ مسلم۔ اذا فقن خان و اذا حدث کذب و اذا وعد اخلف۔

7- ان اکمل المومنین ایمانا احسنھم خلقا۔   8- الحیاء من الایمان۔

9- من سرہ ان بسط اللہ رزقہ و انا ینساہ من ایہ فلیصل رحمہ۔

10- ان الدال علی الخیر کفاعلہ۔   11- خیر الناس من انفعھم للناس۔

12- ان من اجلال اللہ اکرام ذی الشیبۃ المسلم۔   13- لیس منا من لم یرحم صغیرنا ولم یوقر کبیرنا۔

14- من لم یشکر الناس لم یشکر اللہ۔   15- من لا رحم لا یرحم۔

16- ما آمن بی من ماباث شبعان و جارہ جائع۔   17- اولی الناس من بدء ھم بالسلام۔

18- دماءکم واموالکم علیکم حرام۔

19- عن وائلہ انی الا سقع انی یا رسول اللہ خَاتَمُ النَّبِیِّیْنَ صَلَّی اللہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ ما العصبیۃ؟ قال ان تعین قومک علی الظلم۔

20- من فتح علی نفسہ باب مسئلہ فتح اللہ علیہ باب فقر۔   21- السعید من وعظ بغیرہ۔

22- لا یدخل الجنۃ من فی قلبہ مثقال ذرۃ من کبر۔

23- ایاکم والحسد فان الحسد یاکل الحسنات کما تاکل النار الحطب۔

24- المسلم وخوالمسلم لا یظلمہ ولا یخذلہ والا یغتابہ والا یحزنہ والا یحرمہ۔

25- مثل المومنین فی توادھم و یراحمھم و تعاطفھم مثل الجسد اذا شتکی متہ عضو تداعی لہ سآپر الجسد بالسھر والحمی۔

تعلیمات اسلام : (برائے جماعت دہم پارٹ۔II)

1- توحید (تعریف، توحید پر اسلام کا زور، توحید و شرک کا فرق اور کردار سازی میں توحید کا حصہ)

2- اطاعت رسول اللہ خَاتَمُ النَّبِیِّیْنَ صَلَّی اللہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ اور اسکی اہمیت

3- طہارت و پاکیزگی   4- علم کی ترغیب

5- عدل   6- جہاد

7- اکل حلال   8- عفت و حیا

9- سماجی انصاف   10- فرض شناسی

11- اسلامی عبادات کی امتیازی خصوصیات

ج- حضرت محمد خَاتَمُ النَّبِیِّیْنَ صَلَّی اللہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ کا تکمیل فریضہٴ رسالت اور ختم نبوت

1- خلق عظیم

الف۔   حضرت محمد خَاتَمُ النَّبِیِّنَ صَلَّی اللہُ عَلَیہِ وَعَلَّی اٰلِہٖ وَاَصحَابِہٖ وَسَلَّمَ کا پاکیزہ کردار

1- عہد طفولیت   2- عہد شباب

ب۔   اخلاق نبوی خَاتَمُ النَّبِیِّنَ صَلَّی اللہُ عَلَیہِ وَعَلَّی اٰلِہٖ وَاَصحَابِہٖ وَسَلَّمَ کا پاکیزہ کردار

1- سادگی اور بے تکلفی   2- اپنا کام آپ کرنا

3- دوسروں کے کام آنا   4- شفقت، بچوں، خادموں اور جانوروں پر

5- حسن سلوک، گھر والوں کے ساتھ، ساتھیوں کے ساتھ، دشمنوں کے ساتھ

6- مساوات   7- عزم و استقلال

(برائے جماعت ہم پارٹ-I)

قواعد عربی:

1- کلمہ و اقسام کلمہ   4- مونث نفطٍ و معنوی

2- اسم نکرہ و معرفہ   5- مفرد، تثنیہ و جمع

3- مذکر و مونث   6- جمع کی اقسام (جمع مکسر و سالم)

(برائے جماعت دہم پارٹ-II)

قواعد عربی:

1- ضمائر

2- اسم ضمیر کی اقسام: i۔ اسم ضمیر متصل ii۔اسم ضمر متفصل اور ان کی اقسام

3- فعل کی قسمیں (فعل ماضی، مضارع، امر)   4- مرکب اور اس کی اقسام

5- فعل لازم، فعل متعدی   6- حروف

7- ہمزہ استفہام

نام کتاب : اسلامیات اختیاری

مولفین :   1- ڈاکٹر قاصی مجیب الرحمن الاہری   2- علامہ مرزا یوسف حسن

3- پروفیسر رشید احمد   4- پروفیسر عبدالحی انور

ناشر :   1- کامران پبلیپرز، لاہور   2- فاضل مقبل اینڈ سنز، لاہور

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صحت و جسمانی تعلیم (ہیلتھ اینڈ فزیکل ایجوکیشن)

پارٹ۔I		60 نمبر
پارٹ۔II		60 نمبر
پریکٹیکل		30 نمبر

میزان: 150 نمبر

وقت: 2:00 گھنٹے   **پارٹ۔ I (جماعت نہم)**   **60 نمبر**

پہلا باب: تعلیم جسمانی کی تعریف   ۔مقاصد   ۔جسمانی تعلیم کا صحت سے تعلق

دوسرا باب: حرکات

تیسرا باب: تعلیمی جمناسٹک   ۔تعلیمی جمناسٹک کی اہمیت اور جدید رجحانات

چوتھا باب: قامت

پانچواں باب: منظم کھیلیں   1-والی بال   2-بیڈ منٹن (قوانین اور بنیادی مہارتیں)

چھٹا باب: ا تھلیٹکس کے قوانین اور بنیادی مہارتیں   1-100 میٹر دوڑ   2-200 میٹر دوڑ   3-گولہ ہٹ کرنا

ساتواں باب: علم الصحت اور اسکی وسعت   ۔عوام کی صحت کے مسائل

آٹھواں باب: شخصی حفظان صحت

نواں باب: جسم کے حرکاتی کل پرزے   (الف)جسمانی جوڑ   (ب) نظام عضلات

وقت: 2:00 گھنٹے   **پارٹ۔ II (جماعت دہم)**   **60 نمبر**

پہلا باب: جسمانی تعلیم   (الف)فزیکل فٹنس اور اسکی اہمیت   (ب) اچھے کھلاڑی کے اوصاف

دوسرا باب: تفریحی اور چھوٹے رقبے کے کھیل

تیسرا باب: قامتی نقائص کی اصلاحی ورزشیں

چوتھا باب: کھیلیں   ۔کھیلوں کے قوانین اور مہارتیں   (الف)ہاکی   (ب)ٹیبل ٹینس

پانچواں باب: ا تھلیٹکس   ۔ڈسکس تھرو، لمبی چھلانگ (لانگ جمپ)   ۔4×100 ڈاک دوڑ(ریلے ریس)

چھٹا باب: تفریحی مشاغل   (الف) کیمپنگ   (ب) ہائیکنگ

ساتواں باب: معاشرے کی صحت   گھر، سکول اور معاشرے کی صحت

آٹھواں باب: غذائیت

مجوزہ کتاب: صحت و جسمانی تعلیم (ہیلتھ اینڈ فزیکل ایجوکیشن) برائے پنجاب ٹیکسٹ بک بورڈ، لاہور۔

مصنفین: مس شاہدہ خانم، محمد اشرف چوہدری، اسلم حیات وٹو، مس بشریٰ شاہد

ایڈیٹرز: رانا عبدالشکور، نائلہ صدف   **ناشر:**   مکتبہ حریت، لاہور

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COMPUTER SCIENCE

Part-I	50 Marks
Part-II	50 Marks
Practical	50 Marks
Total	150 Marks

Part-I (Class-IX)   **Marks: 50**   **Time: 2:00 Hours**

Unit 1:   **Problem Solving**
  1.1   Problem Solving Steps
        Defining a Problem, Understanding a Problem, Planning a Solution,
        Defining Candid Solutions, Selecting the Best Solution
  1.2   Flowcharts
        Definition, Importance of Flowcharts in Problem Solving, Determining
        Requirements for a Flowchart, Flowchart Symbols, Examples of
        Flowcharts
  1.3   Alogrithm
        Definition, Role of Alogrithms in Problem Solving, Formulation of an
        Alogrithm, Examples of Alogrithms, Efficiency of Alogrithms,
        Difference between an Alogrithm and a Flowchart
  1.4   Test Data
        Importance of Testing, Types of Test Data
  1.5   Verification and Validation
        Verification, Validation
  1.6   Identification and Correction of Errors
        Trace Table, Using Invalid Data for Testing
        Summary   Exercise

Unit 2:   **Binary System**
  2.1   Introduction to Numbers System
        Decimal, Binary, Hexadecimal
  2.2   Number System Conversion
        Decimal to Binary and binary to Decimal, Decimal to Hexadecimal
        and Hexadecimal to Decimal, Hexadecimal to Binary and Binary to
        Hexadecimal
  2.3   Memory and Data Storage
        Memory, Data Representation in Computer Memory, Storage Device
  2.4   Measurement of Size of Computer Memory
  2.5   Boolean Algebra
        Boolean Proposition, Truth Values, Logical Operators (AND, OR,
        NOT), Truth TableLaws of Boolean algebra
        Summary   Exercise

Unit 3:   **Networks**
  3.1   Computer Network
        Need of a Computer Network, Client Server
  3.2   Physical Structure of Networks
        Types of connection, Network topologies
  3.3   Basics of Data Communication
        Components of a Communication System
  3.4   Computer Network Models
        Protocols in TCP/IP Suit
  3.5   The Need of Addressing
        Importance of Addressing in Data Communication, Mapping between
        Telephone Addressing and Network Address
  3.6   Sending HTTP Requests and Receiving HTTP Responses over the

Internet
Understand IP Addressing
3.7 Routing
Understand a Router, Routing in the Internet, Routing Process
Summary   Exercise

Unit 4:   Data and Privacy
4.1 Ethical Issues Related to Security
Understanding Ethical Issues Related to Data Security, Safeguarding
Privacy of Others
4.2 Importance of Data Privacy
Privacy Concerns that Arise through the Mass Collection of Data,
Analyzing the Personal Privacy and Security Concerns that Arise with
any of computational Systems
4.3 Simple Encryption
Importance of Encryption for Everyday Life on the Internet, Caesar
Cipher, Importance of Encryption for Everyday Life on the Internet,
Vigenere Cipher, Using Vigenere Cipher Widget, Encrypted with
Random Substitution using Frequency Analysis, Weakness and
Security Flaws of Substitution Ciphers
4.4 Encryption with keys and Passwords
Relationship between Cryptographic Keys and Passwords,
Characteristics of a Good Password
4.5 Cybercrime
Characteristics of a Phishing Attack, DoS (denial of Service) Attack

Unit 5:   Designing Website
5.1 Introduction of HTML
Definition, Creating First Webpage and Displaying it, Identifying the
Tags used to Markup HTML Elements, Attributes in HTML Tags,
Main Sections in a Webpage, HTML, HEAD and BODY
5.2 Text Formatting
Content Formatting in HTML, Identify the Text Formatting Tags
5.3 Creating Lists
Types of Lists
5.4 Images and Backgrounds
5.5 Define a Hyperlink
Create a hyperlink to a webpage, Define an anchor, Create an anchor
to hyperlink within a webpage, Create a graphical hyperlink
5.6 Creating Tables
Glossary   Indexes   Answers

Authors: Dr. Muhammad Atif Chattha (Associate Professor)
Department of Computer Sciences & IT, The University of Lahore
Editor: Amjad Riaz (MSc. IT Project Management (Sweden)
Consultant Software Acrhitect, Director Horizon conepts Limited
United Kingdom
Published by: Punjab Textbook Board, Lahore

Marks: 50	Part-II (Class-IIX)	Time: 2:00 Hours

Unit 1:   Introduction to Programming
1.1 Programming Environment
Integrated Development Environment (IDE), Text Editor, Compiler
1.2 Programming Basics
Reserved Words, Structure of a C Program, Purpose and Syntax of

comments in C Programms
- 1.3 Constants and Variables
Constants, Variables, Data type of a Variable, Name of a variable, Variable Declaration, Variable initialization

Unit 2:   **User Interaction**
- 2.1 Input/Output (I/O) Functions
printf(), Format Specifiers, scanf(), getch(), Statement Terminator, Escape Sequence
- 2.2 Operators
Assignment Operators, Arithmetic Operators, Relational Operators, Assignment Operator (=) and equal to Operator (= =), Logical Operators, Unary vs Binary Operators, Operators' Precedence

Unit 3:   **Conditional Logic**
Control Statements
Selection Statements
If Statement, If-else Structures, Nested If-else Structures, Solved Example Problems

Unit 4:   **Data and Repetition**
Data Structures
Array, Array Declaration, Array Initialization, Accessing array elements, Using variables as array indexes
Loop Structures
General Structure of loops, General syntax of for loop, Nested Loops, Solved Example Poroblems, Loops and Arrays, Solved Examples Prblems

Unit 5:   **Functions**
Types of Functions, Advantages of Functions, Structure of a Function, Defining a Function
Glossary   Indexes   Answers

Authors: Dr. Muhammad Adnan Hashmi (Assistant Professor)
Department of Computer Sciences & IT, The University of Lahore

Editor: Dr. Mudasser Naseer (Associate Professor)
Department of Computer Sciences & IT, The University of Lahore

Published by: Punjab Textbook Board, Lahore

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COMMERCIAL GEOGRAPHY

Part – I	75 Marks	
Part – II	75 Marks	
Total	**150 Marks**	

Part-I (Class-IX)	**Marks: 75**	**Time: 2:30 Hours**

SECTION-I **MEANING AND SCOPE OF COMMECIAL GEOGRAPHY**
Definition, Scope and Importance of Commercial Geography

SECTION-II **BASIC CONCEPTS**
Geographical Concepts relevant to Commercial Activity, Location, Distribution, Interaction

SECTION-III **BASIS OF COMMECIAL ACTIVITY**
Trade, Transportation, Financing, Ware-Housing, Insurance, Communications

SECTION-IV **COMMECIAL RESOURCES OF PAKISTAN**
Locational Attributes of Pakistan, Commercial Resources of Pakistan, Agricultural Resources, Crops, Forests, Livestock and Livestock Products, Hides and Skins, Fisheries, Poultry, Mineral Resources, Industrial Resources, Power Resources.

SECTION-V **AGRICULTURE – PRODUCTION AND DISTRIBUTION**
Major Crops and their distribution pattern, Wheat, Rice, Pulses, Maize, Cash Crops, Sugarcane, Cotton, Tobacco, Oilseeds.

Part-II (Class-X)	**Marks: 75**	**Time: 2:30 Hours**

SECTION-VI **IMPORTANT MINERAL RESOURCES AND THEIR DISTRIBUTION**
Coal, Oil and Gas, Chrome, Rock Salts, Iron & Copper, Gypsum and Limestone, Marbles, Gold and Gemstones.

SECTION-VII **INDUSTRIAL PRODUCTS OF PAKISTAN**
Major Industrial Products and their Distribution, Food & Beverage Industries, Textile Industries, Chemical Industries, Engineering Industries, Miscellaneous Industries.

SECTION-VIII **MEANS OF TRANSPORTATION AND COMMUNICATIONS**
Different meaning of Transportation in terms of Time, Distance and Cost, Different Modes of Transportation, Means of Transportation and Communication – Roads, Highways, Rivers, Sea Routes, Different Means of Communication System – Post Office, Telegraph, Telephone, Radio and Television etc.

SECTION-IX **MAJOR COMMERCIAL ACTIVITIES**
Financial Institutions and Services, Application of Set Theory in Trade, Domestic Trade and its Significance, Foreign Trade and its Significance, Import, Exports, Comparative Advantage Theory, Brief Introduction of Balance of Payment.

SECTION-X **IMPORTANT COMMERCIAL CITIES AND PORTS**
The role of cities and ports in Commercial Cities, Major Commercial Cities of Pakistan, Major Ports of Pakistan, Seven Big World Cities and their main Commercial Activities.

SECTION-XI **COMMERCIAL GEOGRAPHY AND NATIONAL INTEGRATION**
Meaning of National Integration, Commercial Activity as mean to Integration, Spatial Interaction as a mean to Integration.

Prescribed Book: **Commercial Geography (for Class IX-X)**

Authors:
1. Carnal K.U. Qureshi   2. Dr. Azhar Hameed
3. Faqeer Niaz Ahmad   4. Muhammad Afzal Qureshi

Published by: Shaheen Publishers, Urdu Bazar, Lahore

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سکیم آف سٹڈیز برائے درسِ نظامی گروپ

کل نمبر: 1200

پارٹ II (جماعت دہم)		پارٹ I (جماعت نہم)	
75 نمبر	اردو ۔ پارٹ II	75 نمبر	اردو ۔ پارٹ I
75 نمبر	انگلش ۔ پارٹ II	75 نمبر	انگلش ۔ پارٹ I
50 نمبر	سیرت الرسول خَاتَمُ النَّبِیِّنَ صَلَّی اللہُ عَلَیہِ وَعَلَی الِہ	50 نمبر	سیرت الرسول خَاتَمُ النَّبِیِّنَ صَلَّی اللہُ عَلَیہِ وَعَلَی الِہ
	وَاَصحَابِہ وَسَلَّمَ (متبادل اسلامیات لازمی)		وَاَصحَابِہ وَسَلَّمَ (متبادل اسلامیات لازمی)
50 نمبر	ترجمۃ القرآن	50 نمبر	ترجمۃ القرآن
50 نمبر	مطالعہ پاکستان	50 نمبر	مطالعہ پاکستان
75 نمبر	جنرل ریاضی	75 نمبر	جنرل ریاضی
75 نمبر	جنرل سائنس	75 نمبر	جنرل سائنس
75 نمبر	القرآن	75 نمبر	القرآن
75 نمبر	الحدیث	75 نمبر	الحدیث
میزان: 600 نمبر		میزان: 600 نمبر	

نوٹ: انگریزی، مطالعہ پاکستان، جنرل سائنس اور جنرل ریاضی کے پرچے بورڈ آف انٹرمیڈیٹ اینڈ سیکنڈری ایجوکیشن کی منظور شدہ درسی کتب کے مطابق تیار کیے جائیں گے۔ اردو پارٹ I اور اردو پارٹ II کا حصہ نثر و نظم اردو کی منظور کردہ درسی کتب کےمطابق جبکہ حصہ گرامر اردو کے بجائے عربی قواعد و انشاء پر مشتمل ہوگا۔ اور انشاء و قواعد (متبادل اردو جماعت نہم پارٹ I)، (35 نمبر)، (متبادل اردو جماعت دہم پارٹ II) 40 نمبر و مشتمل ہوں گے جبکہ کلاس نہم پارٹ I میں سیرت الرسول خَاتَمُ النَّبِیِّنَ صَلَّی اللہُ عَلَیہِ وَعَلَی الِہ وَاَصحَابِہ وَسَلَّمَ (متبادل اسلامیات لازمی) کا پرچہ لیا جائے گا اور پارٹ II جماعت دہم میں اسلامیات لازمی پارٹ II۔

قواعد کتب:۔

1- النحو واضح فی قواعد اللغۃ العربیۃ (الاجزاء الثلاثۃ الاولی)
     از علی الجازم و مصطفی امین، مطبعہ المعارف و مکتبتھا بمص

2- شرح مائۃ عامل از شیخ عبدالقاہر جرجانی   سعید کمپنی ادب منزل کراچی

3- ہدایۃ النحو از شیخ سراج الدین عثمانی چشتی   کتب خانہ مجیدیہ ملتان

الانشاء کی تفصیل:۔

1- مضمون نویسی: ایسے موضوعات جو بیانیہ، تاریخی، معاشرتی، سائنسی اور معلوماتی نوعیت کے ہوں جیسے پاکستان، اسلامی شخصیات، تاریخی مقامات، قدرتی مناظر، عبادات اور اجتماعی مسائل۔

2- خطوط نویسی اور عرضی نویسی: نجی، کاروباری، سرکاری خطوط، نیز ایسی درخواستیں جن کا تعلق ہماری روز مرہ زندگی کے مختلف پہلوؤں سے ہو۔

3- کہانی/مکالمہ: دئیے ہوئے موضوع پر مکالمہ یا نا مکمل کہانی کی تکمیل۔

4- کسی دی ہوئی عبارت کم از کم دو سو الفاظ پر مشتمل ہو اور اس سے متعلق سوالات کم از کم پانچ ہوں۔

کتب:۔

     متعلقہ بورڈ کی انشاء پر لکھی ہوئی منظور شدہ کتب میں سے انتخاب کیا جائے گا۔

	اردو برائے جماعت نہم پارٹ II	اردو برائے جماعت نہم پارٹ I
مجوزہ کتاب:	(برائے پنجاب ٹیکسٹ بک بورڈ لاہور)	(برائے پنجاب ٹیکسٹ بک بورڈ لاہور)
نام مصنفین:	پروفیسر ڈاکٹر رفیع الدین ہاشمی صدر شعبہ اردو (ریٹائرڈ)	پروفیسر ڈاکٹر ضیاء الحسن ڈاکٹر محمد صالح طاہر
	ڈاکٹر عبداللہ شاہ ہاشمی سینئر ماہر مضمون اردو (ریٹائرڈ)	پروفیسر اسد ایوب نیازی
	جامعہ پنجاب لاہور	پروفیسر اسد ایوب نیاز پیر پروفیسر محمد نعیم بزمی
نام پبلشر:	علمی کتب خانہ اردو بازار، لاہور	غلام رسول اینڈ سنز، لاہور

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سیرت الرسول خَاتَمُ النَّبِیِّنَ صَلَّی اللہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ

(متبادل اسلامیات لازمی)

کل نمبر: 50	پارٹ۔I (جماعت نہم)	وقت: 2:00 گھنٹے

اس میں مندرجہ ذیل عنوانات شامل ہوں گے۔

1- رسول اللہ خَاتَمُ النَّبِیِّنَ صَلَّی اللہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ کے خاندان (حضرت ابراہیم عَلَیْہِ السَّلَام یا قریش ، مختصراً)

2- رسول اللہ خَاتَمُ النَّبِیِّنَ صَلَّی اللہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ کا بچپن (پیدائش سے لیکر عبدالمطلب کی وفات تک کا زمانہ)

3- ابو طالب کی کفالت اور آپ خَاتَمُ النَّبِیِّنَ صَلَّی اللہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ کی جوانی کے اہم واقعات (حلف الفضول، تعمیر کعبہ، تجارتی اسفار اور حضرت خدیجہ رَضِیَ اللہُ تَعَالٰی عَنْھَا سے نکاح)

4- آپ خَاتَمُ النَّبِیِّنَ صَلَّی اللہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ کی بعثت اور مکی زندگی (اعلان نبوت، دعوت و تبلیغ، مصائب و مشکلات، اہم شخصیات کا قبول اسلام، ہجرت حبشہ، شعب ابی طالب میں نظر بندی، عام الحزن، طائف کا سفر، بیعت عقبہ۔)

5- ہجرت مدینہ اور مدنی زندگی کے ابتدائی واقعات (سفر ہجرت، مسجد قبا کی تعمیر، مسجد نبوی کی تعمیر، مواخات مدینہ، تحویلِ قبلہ اور میثاق مدینہ)

6- مدنی زندگی کے اہم واقعات ، غزوات (بدر، احد، خندق، وفود کی آمد، حجۃ الوداع اور تکمیل دین کا اعلان)

7- وصال، مرض اور تجہیز و تکفین

8- ازواج مطہرات اور اولاد

9- آپ خَاتَمُ النَّبِیِّنَ صَلَّی اللہُ عَلَیْہِ وَعَلٰی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ کے اخلاق و عادات

10- سیرت طیبہ کا ابدی پیغام انسانیت کے نام

کتاب: رحمت عالم از سید سلمان ندوی

کتب خانہ مجیدیہ ، ملتان

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اختیاری مضامین

القرآن

پارٹ-I	---	---	75نمبر
پارٹ-II	---	---	75نمبر
		ٹوٹل:	150نمبر

پارٹ-I (جماعت نہم) کے نصاب کی تقسیم:

(سورۃ الفاتحہ، سورۃ البقرہ آیت نمبر 1تا252)

پارٹ-II (جماعت دہم) کے نصاب کی تقسیم:

(سورۃ البقرہ آیت نمبر 253تاآخر و سورۃ آل عمران مکمل)

نوٹ: ترجمہ، سورتوں کے مضامین کا خلاصہ اور اہم واقعات ، جن کی تفصیل یہ ہے۔

(الف) مذکورہ تین سورتوں کا سلیس اردو ترجمہ کسی ترجمہ قرآن سے۔ 20نمبر

(i) آیات کریمہ کا سلیس ترجمہ 40نمبر

(ii) آیات میں مفردات کا لغوی ترجمہ مع مختصر تشریح

(ب) سورتوں کی منتخب آیات کا خلاصہ مضامین پرچہ میں دی ہوئی آیات کے مضامین کا خلاصہ اپنے الفاظ 20نمبر
میں لکھنا ہوگا۔ ایسے مضامین کا انتخاب کیا جائے گا جو پانچ تا دس آیات پر مشتمل ہوں۔

(ج) اہم واقعات 20نمبر

مذکورہ تین سورتوں میں بیان شدہ واقعات کی تفصیل اپنے الفاظ میں لکھنا جیسے تخلیق آدمؑ، ذبع
بقرہ، تحویل کعبہ، حضرت مریمؑ کی ولادت اور کفالت وغیرہ

کتب: کسی مستند تفسیر سے سورۃ الفاتحہ، سورۃ البقرہ اور سورۃ آل عمران کا انتخاب

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الحدیث

75نمبر	---	---	پارٹ-I
75نمبر	---	---	پارٹ-II
150نمبر		ٹوٹل:	

75نمبر	پارٹ ۔ I (جماعت نہم)	وقت: 2:30گھنٹے

مندرجہ ذیل عنوانات پر مشتمل احادیث شامل ہوں گی۔

حصہ اوّل   45نمبر

2-	التوبہ	1-	الاخلاص
4-	الصدق	3-	الصبر
6-	التقوی	5-	المراقبۃ
8-	التفکیر فی عظیم مخلوقات اللہ	7-	الیقین والتوکل والا ستقامۃ
10-	فیمن من سنۃ حسنۃ ؤوسیۃ۔۔۔الدلالہ علی الخیر والدعاء الی ہدی او ضلالۃ	9-	النہی عن البدع و محدثات الامور
12-	النصیحۃ	11-	التعاون علی ابروالتقوی
14-	الاصلاح بین الناس	13-	الامربالمعروف والنہی عن المنکر
16-	الوصیۃ بالنساء	15-	ملاطفۃ الیتم والبنات وسائر الضعفہ
18-	النفقۃ علی العیال	17-	حق الزوج علی المر
20-	یرالوالدین وصلۃ الارحام	19-	حق الجاروالوصیۃبہ
22-	براصدقاء الاب والام والا قارب	21-	تحریم المقوق و قطیعۃ الرحم
		23-	والزوجۃ و توقیر العلماء الکبارواہل الفضل
		24-	اکرام اہل بیت رسول اللہ خَاتَمُ النَّبِیّنَ صَلَّی اللہُ عَلَیْہِ وَعَلَی اٰلِہٖ وَاَصْحَابِہٖ وَسَلَّمَ و بیان فضلهم
26-	الذہد فی الدنیا	25-	التحذیر من ایذاء الصالحین
		27-	الجوع و خشونۃ العیش
		28-	القانعۃ والعاف والاقتصادفی المعیشۃ والانفاق ونم السؤال من غیر ضرورۃ
30-	البحث علی الاکل من عمل یدہ	29-	جوازالاخذمن غیرمسالۃ
32-	النہی عن البخل والشمع	31-	الکرم والجود والا نفاق فی وجوۃ الخیر
34-	التنفس فی آمور الاخرۃ والا ستکثار مما یتبرک بہ	33-	الایثار والمواساۃ
		35-	فضل الغنی الشاکروهومن اخذ المال من وجہہ، وصرفہ فی وجوہہ الماموربہا
37-	استحباب زیارۃ القبور للرجال وما یقولہ الزائر	36-	ذکر الموت و قصر الامل
39-	الورع وترک الشبہات	38-	کراہیۃ تمنی الموت بسبب ضرنزل بہ
41-	فضل الاختلاط بالناس وحضور جمعہم و جماعاتهم	40-	استحباب العذلۃ عندالفساد
43-	تحریم الکنبروالا عجاب	42-	التواضع وخفض الجناح للمؤمنین

حصہ دوم   30نمبر

2-	العفو والا عراض عن الجاهلین	1-	حسن الخلق، الحلم والا ناۃ والرفق
4-	الغضب۔۔۔۔۔۔۔۔۔۔۔۔ولا انتہ للدین	3-	احتمال الاذی
6-	وجوب طاعۃ والاۃ الامور فی غیرمعصیۃ	5-	الامرولاۃ الامور بالرفق برعایاهم الوالی العادل
8-	حث السلطان والقاضی وغیرهما۔۔۔۔۔۔	7-	النہی عن سؤال الامارۃ واختیارترک الولایۃ
10-	کتاب الادب: الحیاء حفظ السر، الوفابالعہد	9-	النہی عن تولیۃ الامارۃ والقضاءوغیرهما۔۔۔۔۔
12-	استحباب طیب الکلام و طلاقۃ الوجہ عنہ اللقاء	11-	الامر بالمحافظۃ علی ما اعتادہ من الخیر
14-	اصغاء الجلیس لحدیث جلیسہ	13-	استحباب بیان الکلام و ایضاحہ للمخاطب
16-	الوقاروالسکینۃ	15-	الواعظ والا قتصادیۃ
18-	اکرام الضیف	17-	الندب الی اتیان الصلاۃ
20-	الاستخارۃ والمشاورۃ	19-	استحببا التبشیروالتہنیۃ بالخیروداع الصاحب
22-	استحباب تقدیم الیمین فی التکریم	21-	آداب العید

23- التسمیةوالحمدولابعیب فی الطعام وحضرالطعام وھوصائم

24- آداب الاکل والمثرب بالتقصیل   25- کرامات الاولیاء وفضلھم

کتب:

1- ریاض الصالحین ازامام محی القمین ابوزکریا بحی بن شرف الموری۔ مکتبہ رحمانیہ، اُردو بازار، لاھور۔

2- زاد الطالبین مع حاشیہ مزاد الراغبین از محمد عاشق الھی البرانی۔ مکتبہ حقانیہ، ملتان۔

3- بلوغ المرام من ادارۃ الاحکام از امام حافظ احمد بن علی العسقلانی۔ مکتبہ سلفیہ، لاھور۔

4- کناھان کبیرہ از دست غیب شیرازی۔ جامعہ الزھرہ، کراچی۔

نوٹ نمبر2: دی ہوئی احادیث کا ترجمہ اور مختصر تشریح پر مشتمل پانچ سوالات پوچھے جائیں گے۔

75نمبر	پارٹ ـ II (جماعت دہم)	وقت: 2:30گھنٹے

۴۵ نمبر		1- **کتاب الطھارۃ**
	2- احکام الحدث الاصغر والاکبر	1- سنن الوضوء، الغسل المسنون و فرائض الغسل
	4- التمیم، المسح علی الخفین والجبرۃ	3- المیاہ، نجاسۃ الماء وطھارتہ، تطھیر البشر
	6- احکام المعذور	5- الحیض، النفاس والاستحاضۃ
		7- الاستنجاء

۳۰ نمبر		2- **کتاب الصلاۃ**
	2- شروط الصلوۃ، فرائض، واجبات، سنن، آداب الصلوۃ	1- اوقات الصلوۃ، الاذان والا قامتہ
	4- صلوۃ الرجل والمراۃ	3- اداء الصلوۃ
	6- مفسدات و مکروھات الصلوۃ	5- القراعۃ، الوتر، السنن، النوافل، قضاء
	8- صلوۃ المریض والمسافر	7- الجماعۃ والامامتہ وسجود السھو والتلاوۃ
		9- صلوۃ الجمعہ والعیدبن والکسوف والاستسقاء والتراویح والخوف
		10- الاحکام الجنائز والغسل والتکفین والتدفین والاحکام الشھید

۱۰ نمبر		**کتاب الصوم**
	2- مالا یفسدالصوم ومابکرہ الصوم و صیام التطوع	1- رمضان والصوم والنیۃ وما بفسد الصوم وانقضاء والکفارۃ
	4- صدقۃ الفطر	3- الاعتکاف

کتب: 1۔ مختصر القدوری مع توضیح الضروری، از علامہ ابو الحسین احمد ان محمد القدوری

2۔ الروضہ الندیہ مع شرح الدررالبھیہ، از علامہ ابوطیب صدیق بن حسن بن علی الحسینی، فاروقی کتب خانہ اردو بازار، لاھور

3۔ تبصرۃ العلوم (فاروقی کتب خانہ اردو بازار، لاھور)

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جیومیٹریکل اینڈ ٹیکنیکل ڈرائنگ

پارٹ۔I	75 نمبر
پارٹ۔II	75 نمبر

میزان   150 نمبر

وقت: 2:30 گھنٹے	پارٹ۔ I (جماعت نہم)	75 نمبر

باب نمبر 1. جیومیٹریکل اینڈ ٹیکنیکل ڈرائنگ

جیومیٹریکل اینڈ ٹیکنیکل ڈرائنگ کی اہمیت، جیومیٹریکل ڈرائنگ کی تعریف، ٹیکنیکل ڈرائنگ کی تعریف، ڈرائنگ کے اوزار، ڈرائنگ بورڈ، ٹی سکوئر، دھار کی پڑتال، ٹی سکوئر کا استعمال، ڈرائنگ کاغذ کے مختلف سائز، کاغذ کی اقسام، سکاچ ٹیپ، پنسل اور اس کا تراشا، پنسل پکڑنے کا طریقہ، پنسل کا استعمال، ربڑ اور ربر، ڈرائنگ بکس، پر کار اور اس کا استعمال، ڈیوائڈر اور اس کا استعمال، پروٹریکٹر، سیٹ سکوئر اور ان کا استعمال، سیٹ سکوئر کی جانچ پڑتال، پیمانے، احتیاطیں، حروف نویسی، امدادی خطوط، حروف کی چوڑائی اور اونچائی میں نسبت، حروف میں استحکام، گوتھک لیٹرنگ، ایک داب سے لکھائی، انگریزی حروف کی لکھائی کی مشق، ڈرائنگ بورڈ پر کام، کاغذ کو ڈرائنگ بورڈ پر نصب کرنا، حاشیہ اور نام کی تختی، ڈرائنگ شیٹ کی صفائی کے لئے، ضروری ہدایات

باب نمبر 2. پلین جیومیٹری

روائتی علامات، خطوط، زاویہ، تعارف، زاویہ کی اقسام، مختلف زاویے بنانا، مثلث، تعارف، مثلث، زاویوں کے لحاظ سے مثلث کی اقسام، ضلعوں کے لحاظ سے مثلث کی اقسام، مختلف مثلثیں بنانا، چوکور، تعارف، مختلف چوکور بنانا، مساوی الرقبہ اشکال، مساوی الرقبہ اشکال بنانا، بنیادی اصول، مساوی الرقبہ اشکال بنانا

باب نمبر 2. فری ہینڈ سکیچنگ

فری ہینڈ سکیچنگ کے لئے ضروری سامان، پنسل کا استعمال، دائرہ بنانے کا طریقہ، مختلف اوزاروں کے فری ہینڈ سکیچ بنانا (سوالات)

وقت: 2:30 گھنٹے	پارٹ۔ II (جماعت دہم)	75 نمبر

باب نمبر 3. سکیل

پیمائش کا عالمی نظام، پیمانے، سادہ پیمانہ، سکیل کی تشریح، وتری سکیل، سٹینڈرڈ لائنز، سٹینڈرڈ لائن کی اقسام اور ان کا استعمال

باب نمبر 4. سالڈ جیومیٹری

منشور، مخروط، مجسم کے حصے، مخصوص مجسم، مجسم کو ظاہر کرنے کے طریقے، پکٹوریل پروجیکشن، آرتھوگرافک پروجیکشن، آرتھوگرافک فرسٹ اینگل پروجیکشن، فرنٹ ویو اور ٹاپ ویو کی وضاحت، سالڈ جیومیٹری کے سوال، تراش، تراش کے مختلف طریقے، تراش کے سوال، مشقی سوالات

باب نمبر 6. انجینئرنگ ڈرائنگ

کسی مجسم کو ظاہر کرنے کے طریقے، آرتھوگرافک تھرڈ اینگل پروجیکشن، ڈرائنگ بورڈ پر کاغذ کی افقی یا عمودی حالت، کاغذ کی تقسیم، افقی رخ کاغذ کی تقسیم، عمودی رخ کاغذ کی تقسیم، آرتھوگرافک پروجیکشن بنانا، آرتھوگرافک فری ہینڈ ڈرائنگ، مشقی سوالات، ابعادیت، ابعادی اشارات، ابعادیت کے رہنما اصول پر پروجیکشن بنانا، مختلف آبجیکٹس کے آرتھوگرافک، نٹ اور قابلہ، پکٹوریل پروجیکشن، آئسومیٹرک ڈرائنگ، سوالات، اوبلیک ڈرائنگ، فری ہینڈ (آئسومیٹرک یا اوبلیک سکیچ بنانا)، ڈولپمنٹ، ہیلکس، تراش، تراش کی اقسام، مشقی سوات، فرہنگ

کتاب:۔	جیومیٹریکل اینڈ ٹیکنیکل ڈرائنگ
مصنفین:۔	1۔ محمد صدیق وقار 2۔ عبدالحمید 3۔ محمد جلیل جاوید
ایڈیٹر:۔	1۔ مسز انجم ممتاز وآصف 2۔ مسز عائشہ وحید ناشر:۔ آزاد بک ڈپو، لاہور

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ELECTRICAL WIRING

Part-I	40 Marks
Part-II	40 Marks
Practical	70 Marks
Total	150 Marks

Marks: 40	**Part-I (Class-IX)**	**Time: 1:30 Hours**

CHAPTER -1   Fundamental of Electricity

Nature and generation of electricity (General Concept), Matter and its state, Atomic theory and ions, Electric charge, Electric current, Electric potential, Pressure, Resistance, Conductance, Law of resistance, Specific resistance, Ohm's Law

CHAPTER -2   Magnetism

Magnet and magnetic materials, Properties of magnetic material, Nature of magnetic field, Electro magnetism, Flux and flux density

CHAPTER -3   Series and Circuit

Series circuit, Parallel circuit, Series parallel combined circuit, Electrical power, Mechanical power Electrical energy, Tariff for electrical loads

CHAPTER -4   Cells and Batteries

Cell and batteries, Connecting cells in series / parallel, Charging of batteries

CHAPTER -5   Simple Measuring Instruments

Measuring system, Moving iron system, Moving coils system, Electro-dynamic system

CHAPTER -6   Wiring Methods

Wiring methods, Material for electric wiring, Testing of electrical wiring, Estimation for wiring, Kinds of wires and cables, Earthing

LIST OF PRACTICALS FOR CLASS-IX (PART-I)

1. Draw the different symbols relating to electrical wiring field
2. **Basic Requirements for Electrical work:** To do work according to general workshop rules and regulations, To do work according to drawing and sketches, Listing of tools according to jobs, Listing of correct sequence of operation for the job, Working to safety regulations, Working to I.E.E regulations and general electricity rules, Elementary first aid including artificial respiration
3. **Cable Joints:** Identification and use of common hand tools, Care of tools and equipments, Identification of cables and wires w.r.t conductors and insulation, Trimming of cables (using electrician knife / insulation remover), Simple straight joint, Married joint, T-joint, Soldering of joint
4. **Basic electric circuit (Loose wiring):** Identification of electrical symbols, To control one lamp with one switch, To control one lamp and socket, To control three pin socket with one switch, Preparation of series test board, To control 3 lamps with three switches in parallel, To control a bell and lamp in series (bell indicator circuit), Fluorescent tube light connection. (test with series board), Two way switch circuit (stair circuit), To control two lamps in series and two lamp in parallel by two-way switch, To control fan with regulator / dimmer
5. **Identification of measuring instruments:** Identification of am-meter and its application, Identification of volt-meter and its application, Identification and using of long tester, Identification of Ohm-meter and its application, Identification and use of watt-meter, Identification and connection of energy meter.

Marks: 40	Part-II (Class-IIX)	Time: 1:30 Hours

CHAPTER -1   Rules and Regulation for Wiring
I.E.E. rules and regulations for wiring

CHAPTER -2   Alternating Current
A.C and D.C, Time period and frequency, Maximum value of alternating quantity, RMS value of since wave, Self-inductance Mutual inductance, Eddy current, Principle of transformer

CHAPTER -3   Capacitor / Inductors
Construction of capacitor, Types of capacitors, Working of capacitor in AC and DC Capacitance , Construction of inductor, Inductor in AC and DC, Uses of inductor, Reactance of capacitor, and inductor Impedance - Power in AC

CHAPTER -4   Generator /Motor
working principle of Generator , kinds of DC Generators motors and its Construction, Parts of Generators, kinds of motor (AC &DC) working principle of AC single phase motor Universal / series

LIST OF PRACTICALS FOR CLASS-X (PART-II)
Domestic Installations (Batten & PVC pipe wiring)
1. Kitchen installation
2. Bed room installation
3. Drawing room installation
4. Stair case installation (using two way switch)
5. Hall installation
6. Tumbler-bell installation
7. Indicator bell installation
8. Installation of two fluorescent tube in series using single chock
9. K.W.H meter and main switch + fuse installation
10. Wiring test methods: Leakage of Insulation Test, Polarity Test, Continuity Test

BOOK: Electrical Wiring
Publisher: Urdu Science Board 299-Upper Mall Lahore

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WOOD WORKING

Part-I	40 Marks
Part-II	40 Marks
Practical	70 Marks
Total	150 Marks

Marks: 40	Part-I (Class-IX)	Time: 1:30 Hours

CHAPTER -1   **Safety precautions and Trees**

Safety precautions, Tree, Cross section , Kinds of wood

CHAPTER -2   **Wood seasoning**

Introduction of wood, seasoning , Methods of natural & artificial seasoning

CHAPTER -3   **Wood Defects**

Knots, Rots, Shakes, Wood sawing, Methods of sawing

CHAPTER -4   **Measuring and marking tools**

Measuring tools, Testing tools, Marking tools

CHAPTER -5   **Saws**

Hands saws, Kinds of saws, Methods of sharpening the saws

CHAPTER -6   **Smooth Facing Tools**

Wooden plane, Metallic plane, Kinds of planes, Sharpening of the plane, Parts of chisel, Kinds of chisels, Methods of sharpening the chisel

LIST OF PRACTICALS FOR CLASS-IX (PART-I)

1. **Basic Training:** Proper working, Identifying and using of common measuring tools
2. **Identifying and using of marking tools**
3. **Sawing practice:** Sawing with cross cut saw, Sawing with Rip saw, Sharpening and setting of saw teeth
4. **Planning practice:** Assembling and dismantling of plane, Sharpening of iron blade
5. **Joints of Wood:** Dado Joint, Cross Lap joint, Mortise and Tenon joint, Dovetail half joint (TEE), Bredle joint, Half Tee joint, Miter joint, Rub joint, Dowel joint, Groore joint, Screw Dowel joint, Scarp joint

Marks: 40	Part-II (Class-IIX)	Time: 1:30 Hours

CHAPTER -1   **Boring tools (bits, drills) and Braces**

Bits, Drills, Parts of twist drill, Sharpening of auger bit, Sharpening of twist drill, Braces/hand drill machines

CHAPTER -2   **Nails and screws**

Kinds of nails, Types of screws

CHAPTER -3   **Types of screw drivers and Scrapers**

Types of screw drivers, Types of scrapers

CHAPTER -4   **Hammers and Mallets**

Kinds of hammers, Kinds of mallets

CHAPTER -5   **Foils, Holding and Miscellaneous**

Parts of foils, Types of foils, Holding tools , Miscellaneous tools

CHAPTER -6   **Surface Finishing, Colouring and Painting**

Sand papers, Filling, Staining, Painting/polishing

CHAPTER -7   **Glues**

Kinds of Glues – Methods to prepare glue

CHAPTER -8   **Wood Veneer, Ply Wood Hardboard Formica**

Introduction, Cutting , Kinds of veneer, Uses of veneer, Plywood, Use of plywood, Methods of plywood, Characteristics of plywood, Hard board, Preparation and characteristics of hard board, Uses of Hard Board, Formica, Characteristics of Formica

LIST OF PRACTICALS FOR CLASS-X (PART-II)
Skill Requirements

1.	Prepare a simple picture frame	**2.**	Prepare a switch board
3.	Prepare a paper tray	**4.**	Prepare a waste paper basket
5.	Book shelf	**6.**	Book ends
7.	Center Table	**8.**	Stool
9.	Folding stool	**10.**	Towel Stand

Finishing of Center Table

-Sand papering   -Surface colouring

-Sprit polishing

Painting of Towel Stand

-Sand papering   -1st Coat and Enamel by brush

-2nd coat of enamel by brush

Repairing and refinishing of house hold and school furniture

BOOK: Wood Working
Publisher: Urdu Science Board, Lahore.

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REPAIR & MAINTENANCE OF DOMESTIC REFRIGERATOR & AIR CONDITIONER

Part-I	40 Marks
Part-II	40 Marks
Practical	70 Marks
Total	150 Marks

Marks: 40	**Part-I (Class-IX)**	**Time: 1:30 Hours**

CHAPTER -1 Refrigeration

Definition of Refrigeration and Air conditioning, Principles of Refrigeration, Scope of Refrigeration

CHAPTER -2 Heat

Definition of Heat, Various Types of Heat, Modes of Heat, Units of Heat

CHAPTER -3 Energy

Various Types of Energy

CHAPTER -4 Electricity

Conductor, Insulator & Resistor, Volt, Ampere and Resistance, Ohm's Law, Series and parallel circuit, Magnetism, Electro-magnetic coil

CHAPTER -5 Mechanical Refrigeration Cycle

Mechanical Vapor Compressor Cycle, Major Parts of Vapor, Compression System, Compressors, Various types of Evaporators Condensers Refrigerant controls

CHAPTER -6 Refrigerator

Construction detail of Refrigeration, Major parts and body of the refrigerator, Size measurement, Placement of refrigerator

CHAPTER -7 Refrigerants

Chemical names & formula of common refrigerators, Size and Color Coding

CHAPTER -8 Electrical components

Electrical Motors, Capacitors, Controls, Thermostat & Relays

Marks: 40	**Part-II (Class-IIX)**	**Time: 1:30 Hours**

CHAPTER -1 Motors

Types of Motor, AC & DC motors, Starting & Running, Winding, Terminal Tracing

CHAPTER -2 Defrosting

Methods of Defrosting, Off-Cycle Defrosting, Hot Gas Defrosting

CHAPTER -3 Window Air conditioners

Window type Air Conditioner, Installation and maintenance

CHAPTER -4 Gas Charging

Oil charging, Evacuation the system, Gas charging

CHAPTER -5 Mechanical Trouble shooting

Mechanical Trouble in refrigerator and window air conditioner, Reasons & Causes of mechanical faults in refrigerator and window air conditioner, Remedies for common faults of refrigerator and window air

CHAPTER -6 Electrical Trouble shooting

Electrical Troubles in Refrigerator and Air conditioning, Reasons & causes of common Electrical Faults in Refrigerator and Air conditioning, Remedies for common Electrical Faults of Refrigerator and window Air conditioning

CHAPTER -7 Desert Cooler

Working principle of Desert cooler, Types of Desert cooler Construction of desert cooler, Trouble shooting of desert cooler

LIST OF PRACTICALS FOR CLASS-IX (PART-I)

1. Introduction and uses of Basic Workshop Tools and test instruments.
2. Making Diagrams with description of tools and testing instruments.
3. Practice of Drilling.
4. Sheet Metal Jobs (I. Measuring II. Filling III. Surfacing of metal piece).
5. Prepare the graph for the process of heating ice into steam, showing various processes.
6. Measuring of Volts, Current and Amperes.
7. Stair Wiring with Two Way Switch.   8. Wiring of Florescent Tube.
9. Call Bell Circuit with one & two Push Buttons.
10. Preparation of Series Test Lamp.   11. Making Test Board.
12. To make wiring of three bulbs with Single switch in series.
13. To make wiring circuit of 03 bulbs in parallel with one switch.
14. To make the wiring circuit of 3 bulbs with 3 switches in parallel.
15. To check the compressor winding with the help of multi – meter.
16. To check the compressor winding with Series Test Lamp.
17. Cutting of tube with Tube cutter.   18. Bending of Copper tube cutter.
19. Flaring of Copper tube.   20. Swaging of Copper tube.
21. Demonstration of Gas welding & Identification of Gas. Welding Equipment.
22. Practice of Oxyacetylene flame, Soldering, Brazing of Copper tubes.
23. Testing Overload.   24. Testing Relays.
25. Testing of Thermostats.   26. Testing starting and running capacitors.
27. Testing of door switch and light.
28. Practice on electrical wiring of defrost type refrigerator

LIST OF PRACTICALS FOR CLASS-X (PART-II)

1. Servicing of open types Reciprocating compressor including the lapping of Flapper valves.
2. Oil charging in the open type compressors.
3. Oil charging in a sealed compressor.
4. Evacuating, leak testing and Gas charging in Domestic refrigerator.
5. Repairing and maintaining of door gasket.
6. Tracing of Terminals of a sealed and semi-sealed compressor with the help of AVO-meter.
7. Practice of wiring diagram of no frost type domestic refrigerator.
8. Tracing the terminals of three speed fan motor.
9. Release of struck motor compressor.
10. Trouble shooting of Refrigerator.
11. Wiring diagram of domestic window type air-conditioner.
12. Wiring of Heating/Cooling type window Air conditioner.
13. Pressurizing the window air conditioner with Nitrogen with soap solution for leak testing.
14. Leak testing with electronic leak detector.
15. Evacuation and gas charging of a window type Air-conditioner.
16. Transferring of gas from one cylinder to another.
17. Trouble shooting in Electrical system of window type Air conditioner.
18. Installation of Window type Air conditioner.
19. Wiring practice of Desert cooler.
20. Trouble shooting in Electrical system of Desert cooler

BOOK: Repair & Maintenance of Domestic Refrigerator, Air Conditioner
Publisher: Urdu Science Board Lahore.

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COMPUTER HARDWARE

Part-I	40 Marks
Part-II	40 Marks
Practical	70 Marks
Total	150 Marks

Part-I (Class-IX)	**Marks: 40**	**Time: 1:30 Hours**

CHAPTER -1   **Electrical Essentials of Electronics**

Electrical Terminology & their symbols, Conductor, Insulator and Semiconductor, Ohm's law, Energy & power, Circuits

CHAPTER -2   **Electronics passive components**

Resistor , Resistors of Colour coding, Capacitor & Types of Capacitor, Inductor, Transformer

CHAPTER -3   **Electronics Active components**

Basic of Electronics, Semiconductor, P-type N-type silicon, Diode Transistors, Amplifier

CHAPTER -4   **Digital and analog system**

Number systems, Computer Code, Bit & bytes, Types of Logic Gates

CHAPTER -5   **Basics of Computer**

Introduction of Computer, Types of Computer, Parts of Computer Working procedure of computer

CHAPTER -6   **Care of Computer**

Introduction of care computer, Method of taking of Back-up, Damages of hardware, Accidental deletion, Care of hard disk, Virus

CHAPTER -7   **Boot- up Procedure**

Plug and Play

CHAPTER -8   **Input and Output Devices**

Keyboard , Mouse, Mic, Scanner , Digital camera, Output devices, Monitor, Printer, Speakers

Marks: 40	**Part-II (Class-IIX)**	**Time: 1:30 Hours**

CHAPTER -1   **Storage Devices**

Computer Storage Devices, Floppy Disk/Drive & its function, Hard Disk and its types, Types of CD ROM, Functions of Zip Drive

CHAPTER -2   **Memory and processor**

Primary and Secondary Memory, Read Only Memory (ROM), Random Access Memory (RAM) and its types and functions, Central Processing Unit (CPU) and its types, Co-processers

CHAPTER -3   **Mother Board**

Mother Board, Bus Based computers, Single Board Based computers, IBM methods, Types of Mother Board, Jumpers and Cables Setting, Power Supply

CHAPTER -4   **Bus and Slots**

Function of Buses, Function of Slots, Interface Cards and its types, Modem and its Functions, TV Tuner Card and its Functions

CHAPTER -5   **Network and Communication**

Networking, Advantages of Networking, Methods of Networking, Topology and its types, Types of Networking

CHAPTER -6   **Operating Systems**

Operating System, Disk Operating System, Windows Operating System

LIST OF PRACTICALS FOR CLASS-IX (PART-I)

1. Identify the electronics Component and Color code
2. Connection of the Resister in series and parallel
3. Connection of the inductor in series and parallel
4. Connection of the inductor in series and parallel
5. Use of Hand tools
6. Use of Digital meter
7. Use of analog meter
8. Measuring the primary and secondary voltage of Transformers
9. Testing of Diode with ohm meter
10. Half Wave Rectifier
11. Full Wave Rectifier
12. Bridge rectifier
13. Regulated Power Supply
14. Use of I.C
15. Checking of NPN and PNP transistor with meter
16. Logic gates
17. AND gate
18. NAND gate
19. OR gate
20. NOR gate
21. Inverter
22. Exclusive
23. Exclusive NOR gate
24. Measurement of the Switch Mod Supply Voltage
25. Power supply Installation in CUP
26. Checking of Monitor Controls
27. Checking of CRT
28. Keyboard function
29. Mouse function
30. Scanner function
31. Display of RAM
32. Configure the Mother Board Slots
33. Display of Computer Parts
34. Dot matrix printer installation with driver
35. Inkjet printer installation with driver
36. Laser jet printer installation with driver

LIST OF PRACTICALS FOR CLASS-X (PART-II)

1. Installation of Floppy Disk Drive
2. Installation of CD-drive
3. Installation of CD-Writer
4. Installation of Mother Board.
5. Data Bus and its Connections
6. Installation of Ram
7. Processor installation
8. Processor Fan installations
9. View of cards
10. Auto Configuration and Defaults
11. Bios Setup Configuration
12. Display card operation and its installation
13. Sound card operation and its installation
14. Multimedia Checking
15. Fax modem operation and its installation
16. Network interface card operation and installation
17. TV tuner card operation & installation
18. Computer assembling
19. Computer dissembling
20. Prepare boot able/Startup Disk
21. Transfer booting system
22. Power on self-test
23. F Disk
24. Disk Defragmentation
25. Security Password setting
26. Removal of Security Password
27. Disk Formatting
28. DOS (commands)
29. Windows installation
30. Windows (commands)
31. Installation and prerequisites of computer application package
32. Word commands and shortcut keys
33. Excel commands and shortcut keys
34. Power point commands and shortcut keys

BOOK: **Computer Hardware**
Publisher: **Urdu Science Board Lahore**.

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POULTRY FARMING

Part-I	40 Marks
Part-II	40 Marks
Practical	70 Marks
Total	150 Marks

Part-I (Class-IX)	**Marks: 40**	**Time: 1:30 Hours**

CHAPTER -1   **Introduction of Poultry Farming**

Poultry farming, Importance of protein, Egg and its meat as human diet, Importance of Poultry Farming, Important Tips of Poultry farming

CHAPTER -2   **Chicken anatomy and body systems**

Skeletal system, Digestive system, Respiratory system, Nervous system, Reproductive system, Circulatory system

CHAPTER -3   **Breeds of Chicken**

Breeds classification, Breed standards, Egg producing breeds Meat producing breeds

CHAPTER -4   **Hatchery management**

Traditional v/s modern chick hatching, Selection of hatching eggs. Hatchery building and equipment's, Incubators and incubation of eggs, Taking off hatch, Chick sexing , grading, packing and transportation, Hatchery management and hygienic measures

CHAPTER -5   **Poultry Housing / Shed**

Selection the Site and area for poultry farm, Kinds of poultry farms and its constructional kinds, Management Husbandry Hints; proper temperature, ventilation, lighting etc, Systems of poultry housing

CHAPTER -6   **Poultry House Equipment's**

Types of brooders, Types of feeders, Types of waterer, Egg laying nests, Egg collection trays, Precautions;
   -Vaccination kit   -Spray Pump   -DE breaker etc.

Marks: 40	**Part-II (Class-IIX)**	**Time: 1:30 Hours**

CHAPTER -1   **Poultry feed**

Introduction of poultry feed, Essential feed nutrients, Importance of Feed ingredients, Nutritional requirements of poultry birds , Balance Ration Different Methods of Feed storage, Commercial feed for different birds

CHAPTER -2   **Broiler Farming**

Purchase of chicks, Brooding, Vaccination procedure of the chicks Broiler Feeds and feedings, Broiler Farm management, Economical analysis of Broiler Farming

CHAPTER -3   **Layer Farming**

Purchase of layer chicks, Brooding and rearing management, Vaccination program, Lighting program, Layer feeds and feeding, Selection of laying and no-laying hen, Different Types supply of laying nets, Egg collection, storage and marketing, Economical analysis of Layer Farming

CHAPTER -4   **Poultry Diseases**

Introduction of Poultry Diseases, Bacterial diseases & preventive, measures, Viral diseases & preventive measures, Mycotic and Fungal diseases & preventive measures, Parasitic diseases (external & internal parasite) & preventive measures, Nutritional diseases , Managing problems & preventive measures

CHAPTER -5   **Disease Control Measures**

Bio-Security and its importance , Measures of disease control, Purchase of graded chiks, Parasitic control

CHAPTER -6   **Record Keeping**

Introduction of record keeping, Importance of Record keeping Different

Types of record;	-Annual purchase of birds
-Annual purchase of feed	-Building, machinery and
Equipment record.	-Mortality record vaccination record
-Egg laying record	-Daily, monthly income and expenses record

LIST OF PRACTICALS FOR CLASS-IX (PART-I)

1. Demonstration of internal organs of chicken
2. Different types of feeders
3. Demonstration of different types of waters
4. Demonstration of different types of brooders
5. Practical demonstration of different breads
6. Practical methods of vaccination
7. Different injectable medicines, their use and some important medicines
8. Practical cleaning of poultry sheds
9. Differentiating layer and non-layer
10. Practical hatchery operation
11. Practical method for getting eggs for hatching
12. Treatment of external parasites
13. Toxicosis in poultry
14. Clinical examination of sick birds
15. Postmortem of sick birds

LIST OF PRACTICALS FOR CLASS-X (PART-II)

1. Diagnosis of poultry diseases
2. Different feed formulation: Broiler chick (starter ration), Broiler chick (finisher ration), Layer chick (starter ration (a &b), Layer chick (grower ration (a &b), Laying hen (a & b), Laying hen (premix)
3. Disposing off dead birds
4. Getting hatching eggs
5. Candling the eggs
6. Cleanliness of hatchery and incubator

Book: Poultry Farming
Publisher: Urdu Science Board Lahore.

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FISH FARMING

Part-I	**40 Marks**
Part-II	**40 Marks**
Practical	**70 Marks**
Total	**150 Marks**

Part-I (Class-IX)	**Marks: 40**	**Time: 1:30 Hours**

CHAPTER -1   **Introduction of fish culture and Aquaculture**

Definition of fish farming, Introduction of fish culture, Different Types of Fish culture, Importance of Aquaculture, History of Aquaculture, Future of Aquaculture in Pakistan

CHAPTER -2   **Introduction of Fish Pond**

Site selection, Types of Soil, Fish Ponds

CHAPTER -3   **Water Quality and its management**

Water quality, Methods to improve water quality, Aquatic weeds, Water pollution

CHAPTER -4   **Culturable Fish Species**

Introduction of culturable fish, Indian Carps, Chinese Carps, Common Carps, Other Culturable fish

CHAPTER -5   **Aquatic Plants and Animals**

Aquatic Plants and its control, Various types of Aquatic Animals and its control

CHAPTER -6   **Fish Seed stocking**

Fish seed transport, Stocking Density

Marks: 40	**Part-II (Class-IIX)**	**Time: 1:30 Hours**

CHAPTER -1   **Feed & Fertilizers**

Definition of fish feed, Introduction of natural feed, Various types of Fertilizers, Application of Fertilizers, Organic & Inorganic fertilizers

CHAPTER -2   **Fish Hatchery / Breeding**

Introduction of Fish hatchery, Components of fish hatchery, Brood stock rearing, Types of Fish Breeding, Artificial breeding

CHAPTER -3   **Fish Disease and Control**

Fish symptoms, Types of fish diseases, Disease Control management and treatment

CHAPTER -4   **Fish Harvesting**

Introduction of nets & its types, Various Methods of Harvesting

CHAPTER -5   **Economics / Marketing**

Feasibility Report, Various methods to Keep fish, Fresh

CHAPTER -6   **Integrated Fish Farming**

Introduction of integrated fish Farming, Various Types of integration

LIST OF PRACTICALS FOR CLASS-IX (PART-I)

1. **Studies on Fish Pond:** Site selection for fish pond, Basic components of fish farm, Calculate surface area of fish pond, Calculate water volume of fish pond
2. **Soil Analysis:** Collection of soil samples, Ribbon test for soil analysis, Ball test for soil analysis, Calculate water loss by seepage
3. **Water Analysis:** Measurement of water temperature of fish pong, Measurement of pH of fish pond, Measurement of dissolved oxygen of fish pond, Measurement of TDS of fish pond, Measurement of light penetration in fish pond
4. **Identification of Fishes and Aquatic Plants:** Identification of culturable

species, Identification and preservation of different fishes, Identification and preservation of aquatic plants, Identification of planktons in pond water
5. **Seed Stocking in Fish Pond:** Measurement of weight/length of fish pond, Method of seed stocking in fish pond

LIST OF PRACTICALS FOR CLASS-X (PART-II)
1. **Feed & Fertilizers:** Introduction to feed ingredients, Preparation of fish feed, Application of fish feed in ponds, Introduction to fertilizers, Application of fertilizers in fish ponds
2. **Fish Breeding:** Introduction to fish hatchery, Brood stock selection, Demonstration of injection & striping
3. **Fish Disease and control:** Symptoms of disease fish, Control of fish disease
4. **Fish Harvesting:** Introduction to different types of nets, Making of hand nets, Methods of harvesting
5. **Feasibility report and marketing:** Making of feasibility report of one hectare fish farm, Identification of fresh and outdated fish

Book: Fish Farming
Publisher: Urdu Science Board, Lahore.

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DRESS MAKING & FASHION DESIGNING

Part-I	40 Marks
Part-II	40 Marks
Practical	70 Marks
Total	150 Marks

Part-I (Class-IX)	**Marks: 40**	**Time: 1:30 Hours**

CHAPTER -1   **Introduction**
Tools and electronic machine, Adjustment, Oiling of parts, Maintenance and operate

CHAPTER -2   **Sewing machine**
Types of sewing machine, Care & Handling, Cleaning & oiling, Faults finding

CHAPTER -3   **Colour & Design**
Selection of Colour and design for different age group

CHAPTER -4   **Drafting and Pattern Making**
Introduction of drafting and pattern making Children figure and taking their measurement, Terms used in garment
Industry, Visit of garment factory to familiarize with the production work of industry

CHAPTER -5   **Importance of Dress making and Fashion Designing**
Importance and use of dress making & fashion designing in the present age

CHAPTER -6   **Size System**
Procedure taking of the Human body
Procedure taking measurement of the From sample, Flow chart, Different Height group, Different Width group
Calculate the Formula of different sizes

Marks: 40	**Part-II (Class-IIX)**	**Time: 1:30 Hours**

CHAPTER -1   **Textile Fabrics**
Different types of fibers, Source and properties of Natural fibers, Source and properties of Man Made Fibers

CHAPTER -2   **Fiber to yarn**
Different processes of Yarn manufacturing

CHAPTER -3   **Fabric Construction**
Construction techniques, Properties of Weaving, Knitting qualities, Felting fabrics

CHAPTER -4   **Finishes applied on fabrics**
Qualities of Finishing process, Qualities of Unfinished cloth

CHAPTER -5   **Figure analysis**
Details of Size System, Figure analysis of children ages from 1-14 years (boys & girls)

CHAPTER -6   **Measurements**
Different Types of measurements, Various formulas for different size calculation

CHAPTER -7   **Master Pattern**
Importance of Master Pattern, Advantages of Master Pattern, Terminology in garment industry, Symbols used in garment industry, Accessories used in garment industry, Effects of arts elements

LIST OF PRACTICALS FOR CLASS-IX (PART-I)

1. Tools in electronic machine, adjustment, oiling of parts, maintenance & operate
2. Sewing machine. Types, care & handling, cleaning & oiling, faults finding
3. Colour & design. Selection of colours, combination of colours, identification colours
4. Draft and cut under wares in different size
5. Draft and cut out pattern of bib and feeder
6. Draft and cut pattern of simple and churidar pajamas in different designs (Thaila cut and square cut)
7. Draft and cut pattern of yoke frock I standard sizes
8. Ladies shalwar & Kameez
9. Draft and cut pattern of romper
10. Draft and cut pattern of apron in different designs

LIST OF PRACTICALS FOR CLASS-X (PART-II)

1. Two pieces of frock in different sizes and styles
2. Draft and cut pattern of shalwar (ladies & gents)
3. Ladies Kameez different sizes and style
4. Ladies blouse
5. Gents bush-shirts full and half sleves
6. Gents shirts of different sizes
7. Gents Kurtas
8. Ladies slips of different styles
9. Kemi niker and paints
10. Children night suit
11. Coatee of different style and sizes

Book: Dress Making & Fashion Designing
Author: Salma Hussain
Publisher: Urdu science Board, 299, Lahore.

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BEAUTICIAN

Part-I	40 Marks
Part-II	40 Marks
Practical	70 Marks
Total	150 Marks

Part-I (Class-IX)	Marks: 40	Time: 1:30 Hours

CHAPTER -1   **Health**

Healthy body & Fresh mind, Importance of Food & health, Ages and stages, Shapes of body, Importance of Exercise, Importance of Height and weight, Importance of Beauty care

CHAPTER -2   **Energetic food**

Hygienic food, Importance of Vegetable and fruit Importance of Vitamins, Types of Vitamins in Food, Refreshing drinks and cereals Types of drinks and cereals

CHAPTER -3   **Skin**

VariousTypes of skin, Problems and solutions of skin, Nourishment of skin, Techniques of massage, Skin care

Marks: 40	Part-II (Class-IIX)	Time: 1:30 Hours

CHAPTER -1   **Herbal Cosmetics**

Masks and its kinds, Masking of Herbal cosmetics, Cleansing milk, Hair setting lotion - Hair Spray, Perming lotion & Neaulizer, Ubton –Wax –Hinna -Shampoo Beauty cream - Hair oil, Hair conditioner - Massage oil

CHAPTER -2   **Hair Treatments**

Types of hair, Hair Problems, Care - Hair conditioning Exercises

CHAPTER -3   **Allergic Reactions**

Solution of Bleach Damages, Reaction of perming lotion, Reaction of creams, Solution of skin and hair   Damages, Environment

LIST OF PRACTICALS FOR CLASS-IX (PART-I)

1. **Skin Treatments:** Manicure and pedicure, Waxing, Bleaching, Threading, Shaving, Body Massage, Facial, Skin Polish
2. **Perming:** Hair types, Perm types, Perming lotions, List of things, Perming method, Shampooing and conditioning of perm
3. **Bleach:** Hair bleach, Streaking and highlighting
4. **Colouring and Tinting:** Hair types, Black color, Brown color, Golden color, Beige color, Copper, Bargandi, reddish and Mahagani, Stage color, Colouring method
5. **Shampoo and conditioning**
6. **Straightening**
7. <u>**Singing (split ends)**</u>

LIST OF PRACTICALS FOR CLASS-X (PART-II)

1. <u>**Make up:**</u> Face diagnosis, Cosmetic selection, Cleansing milk, creams and oils usage, Day make up, Evening make up, Party make up, Bridal make up, Eye brow shaping and setting, Application of false eye lashes, Base, Eye make up, Blush on application, Contouring and highlighting, Shaping lips and nails
2. <u>**Hair style:**</u> Parting and cutting, Trimming, U shape cut, V shape cut, Bob cut, Baby cut, Boy cut, Steps cut, Sleek, razor and layers cut, Blow dry, Pleats, Bubbles, Twists, Roller setting, English hair style, Fleeks

Book:	Beautician
Author:	Sameema Nadeem
Publisher:	Urdu Science Board, Lahore

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لباس اور پارچہ بافی

وقت 2:00 گھنٹے	پارٹ۔ I (جماعت نہم)	60 نمبر

باب 1:۔	پارچہ بافی اور لباس	پارچہ بافی اور لباس کی تعریف، لباس کا ارتقاء، پارچہ بافی اور لباس کے مطالعہ کی اہمیت، عہد حاضر میں پارچہ بافی اور لباس کے مطالعہ کی ضرورت
باب 2:۔	پارچہ بافی کے ریشے	پارچہ بافی کے ریشوں کی درجہ بندی، قدرتی ریشوں کی خصوصیات، انسانی خود ساختہ ریشوں کی خصوصیات
باب 3:۔	پاکستان میں پارچہ بافی کی صنعت	قدرتی ریشوں کی پیداوار کے اہم علاقے، پارچہ بافی کی صنعت کے مراکز، بنائی اور سلائی کے صنعتی مراکز
باب 4:۔	ریشوں کی شناخت	ریشوں کی شناخت کے طریقے
باب 5:۔	پارچہ بافی کے بنیادی طریقے	بُنت اور کھڈی (Loom and Weaving)، صنعتی بنائی (Industrial Knitting) کے مختلف طریقے
باب 6:۔	ٹیکسٹائل ڈیزائن	ٹیکسٹائل ڈیزائن، صنعتی پیمانے پر بننے والے ٹیکسٹائل ڈیزائن، رنگ اور ٹیکسٹائل
باب 7:۔	لباس کا انتخاب	لباس کے انتخاب میں ٹیکسٹائل کے علم کی اہمیت

| مصنفہ: | مسز شاہین پرویز | ناشر: آزاد بک ڈپو، لاہور |

وقت 2:00 گھنٹے	پارٹ۔ II (جماعت دہم)	60 نمبر

باب 8:۔	فیشن اور بناؤ سنگھارنا	فیشن/رواج، فیشن اور زیبائش/بناؤ سنگھارنا، فیشن میں جدّت
باب 9:۔	کپڑوں کی منصوبہ بندی کے اصول	کپڑوں کی منصوبہ بندی کے اصول، خاندان کے مختلف افراد کے لیے کپڑوں کی منصوبہ بندی
باب 10:۔	کپڑوں کی حفاظت و دیکھ بھال اور ان کو سٹور کرنا	کپڑوں کی روزانہ، ہفتہ وار اور موسمی حفاظت و دیکھ بھال، کپڑوں کو سٹور کرنے کے اصول
باب 11:۔	داغ دھبے دور کرنا	داغ دھبے دور کرنے کے اصول، داغ دھبے دور کرنے کے طریقے، داغ دھبے دور کرنے کے دوران حفاظتی اقدامات
باب 12:۔	پارچہ بافی اور لباس میں کاروبار کے مواقع اور پیشے	چھوٹے اور درمیانہ درجے کے کاروبار، گھریلو بنیادوں پر کاروبار، مقامی مارکیٹ، بین الاقوامی مارکیٹ
باب 13:۔	سلائی کا تعارف	سلائی مشین کے حصے، سلائی مشین کا استعمال اور اس کی دیکھ بھال، سلائی کرنے کے دوران حفاظتی اقدامات
باب 14:۔	لباس بنانا	جسم کا ناپ لینا، ڈرافٹ بنانا، کپڑے کی کٹائی کرنا، سلائی کرنا

| مصنفہ: | مسز شاہین پرویز، ڈاکٹر فرزانہ کشور | ناشر: آزاد بک ڈپو، لاہور |

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LIST OF PRACTICALS

1. Drafting individual bodies, taking accurate measurements and using correct drafting procedure.
2. Construction of Qameez and Shalwar.
3. Common mending methods.   4. Seams and seams finishes.
5. Laundry and stain removal.

Practical Examination will be based on three hours.

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ISLAMIC HISTORY / MUSLIM HISTORY

Marks: 75	**Part-I (Class-IX)**	**Time: 2.30 Hours**

CHAPTER-1 **CONDITION OF PRE-ISLAMIC WORLD WITH PARTICULAR**
  1. Condition of the world in general
  2. Conditions of pre-Islamic Arabia, Religious, Social, Economic and Political

CHAPTER-2 **THE LIFE OF PROPHET MUHAMMAD** خَاتَمُ النَّبِيِّنَ صَلَّى اللهُ عَلَيْهِ وَعَلَى اٰلِهِ وَاَصْحَابِهِ وَسَلَّمَ

  1. Life of Rasulullah خَاتَمُ النَّبِيِّنَ صَلَّى اللهُ عَلَيْهِ وَعَلَى اٰلِهِ وَاَصْحَابِهِ وَسَلَّمَ upto declaration of Nubuwat His Daawat, Sacrifices of early Muslims
  2. Hijrat-e-Habsha, Shaab-e-Abi Talib, Miraj, Journey to Taif
  3. Ba'at-e-Aquba, Hijrat-e-Madina, Mesaq-e-Madina.
  4. Brief history of the min Ghazwat
  5. Conquest of makkah, Hajjat-ul-Wida and Khutba-ul-wida

CHAPTER-3 **TEACHING OF PROPHET MUHAMMAD** خَاتَمُ النَّبِيِّنَ صَلَّى اللهُ عَلَيْهِ وَعَلَى اٰلِهِ وَاَصْحَابِهِ وَسَلَّمَ

  1. Teaching of the Holy Prophet خَاتَمُ النَّبِيِّنَ صَلَّى اللهُ عَلَيْهِ وَعَلَى اٰلِهِ وَاَصْحَابِهِ وَسَلَّمَ
  2. Social Reformer
  3. Head of State
  4. Supreme Commander
  5. Chief
  6. Statesman and Administrator
  7. Education
  8. Upholder of Dignity of Labour
  9. Perfect Ma

CHAPTER-4 **DESCRIPTION OF KHULFA-E-RASHIDEEN**
  A brief biographical description of khulfa-e-rashideen

  1. Hazrat Abu Bakar Siddique رَضِىَ اللهُ تَعَالَى عَنْهُ

  2. Hazrat Umar-e-Farooq رَضِىَ اللهُ تَعَالَى عَنْهُ

  3. Hazrat Usman-e-Ghani رَضِىَ اللهُ تَعَالَى عَنْهُ

  4. Hazrat Ali Al-Murtaza رَضِىَ اللهُ تَعَالَى عَنْهُ

CHAPTER-5 **ACHIEVEMENT OF KHULFA-E-RASHIDEEN**
  Contributions of Khulafa-e-Rashideen towards the cause of Islam. Expansion of Islamic State Role of Hazrat Saad Bin Abi Waqas, Hazrat Khalid Bin Walid, Hazrat Abu Obyedah Bin Jarrah, Hazrat Umar Bin Al-Aas, Hazrat Abu Musa Al-Ashri, administration and Judiciary under the Pious Caliphs.

Marks: 75	**Part-II (Class-IX)**	**Time: 2.30 Hours**

CHAPTER-6 **UMAYYAD**
  1. Hazrat Amir Muawiya
  2. Yazid (Karbala and Hazrat Imam Hussain رَضِىَ اللهُ تَعَالَى عَنْهُ
  3. Hazrat Abdullah Bin Zubair
  4. Abdul Malik bin Marwan
  5. Walid bin Abdul Malik
  6. Suleman bin Abdul Malik

7. Umar bin Abdul Aziz
8. Causes of the decline of Ummayyads

CHAPTER-7   ACHIEVEMENTS OF UMAYYAD

1. Expansion and propagation of Islam with particular reference to Hujjaj bin Yousaf, Muhammad bin Qasim, Qutaiba bin Muslim, Musa bin Nasir, and Tariq bin Ziyad.
2. Cultural and Scientific Achievements.
3. Administration and Judiciary

CHAPTER-8   ABBASID

1. Al-Saffah
2. Al-Mansoor
3. Haroon-ur-Rashid
4. Bar-Maki
5. Mamun-ur-Rashid
6. Al-Muatasim

CHAPTER-9   ACHIEVEMENTS OF ABBASID

1. Cultural Scientific and Literary Achievements
2. Propagation and expansion of Islam
3. Administrative reforms
4. Socio-economic development
5. Causes of the decline of Abbasides

Prescribed Book: **History of Islam Classes – IX – X**
Author: Dr. Shahid Mukhtar
Publisher: Imtiaz Book Depot

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مبادیاتِ ہوم اکنامکس

75 نمبر	پارٹ۔ I (جماعت نہم)	وقت 2:30 گھنٹے

باب 1:۔	ہوم اکنامکس کا تعارف	ہوم اکنامکس کی تعلیم کے اغراض و مقاصد، ہوم اکنامکس کی افادیت و اہمیت، ہوم اکنامکس کا دیگر مضامین سے تعلق
باب 2:۔	غذا اور غذائیت کا تعارف	غذا اور غذائیت کی تعریف، نقصِ غذائیت کے اثرات، غذا کے کام، بنیادی غذائی اجزاء کا مطالعہ، خوراک اور صحت
باب 3:۔	غذا اور خوراک کو سمجھنا	متوازن غذا کی تعریف، بنیادی غذائی اجزاء، افراد کی غذائی ضروریات
باب 4:۔	کھانوں کی تیاری	کھانا پکانا، کھانا پیش کرنا، خوراک سٹور کرنا، باورچی خانے میں حفاظتی تدابیر / اقدامات
باب 5:۔	بچوں کی نگہداشت اور نشو و نما کا	انسانی نشو و نما کے معنی اور تعریف، انسانی نشو و نما کی اہمیت کا مطالعہ، انسانی نشو و نما کے اصول تعارف
باب 6:۔	نشو و نمائی خصوصیات	نو زائیدگی کا دور، شیر خوارگی، ابتدائی بچپن، درمیانی بچپن، نو بلوغت
باب 7:۔	بچوں کے رویوں کے مسائل	رویوں کے مسائل کی تعریف اور اقسام، رویوں کے مسائل کی وجوحات، رویوں کے مسائل کی روک تھام اور ان کا حل
باب 8:۔	انسانی نشو و نما میں خاندان اور معاشرے کا کردار	والدین اور بچوں کے تعلقات، بہن بھائیوں سے تعلقات، ہم عمروں سے تعلقات، نگران کا کردار

75 نمبر	پارٹ۔ II (جماعت دہم)	وقت 2:30 گھنٹے

باب 9:۔	پارچہ بافی اور لباس کا تعارف	پارچہ بافی اور لباس کی تعریف اور اہمیت، ریشے، پارچہ بافی کے ریشوں کی اقسام اور خصوصیات، مارکیٹ میں دستیاب خالص (Pure) اور امتزاجی (Blend) پارچہ جات کا مطالعہ
باب 10:۔	لباس بنانا	سلائی کا سامان، لباس کی سلائی کے اصول، کپڑے اور ڈیزائن کے انتخاب کا طریقہ کار
باب 11:۔	عمر کے مختلف ادوار میں لباس کی ضروریات	لباس کے انتخاب پر اثر انداز ہونے والے عوامل، عمر کے مختلف ادوار میں لباس کی ضروریات، پرانے لباس کو ردّ و بدل کر کے نیا بنانا
باب 12:۔	انتظام کا تعارف	انتظام کا تصور، اقدار، مقاصد اور معیار، ذرائع کا انتظام، وقت، آمدنی اور توانائی
باب 13:۔	ماحول اور انتظام	صحت مند ماحول، صفائی اور فاضل مواد ٹھکانے لگانے کا انتظام، گھر میں تحفظ / حفاظتی اقدامات
باب 14:۔	آرٹ اور ڈیزائن	ڈیزائن کو سمجھنا، ڈیزائن کے عناصر اور اصولوں کو سمجھنا، آرٹ کا گھر اور ماحول کے ساتھ تعلق
باب 15:۔	روز مرہ زندگی میں آرٹ	لباس میں ڈیزائن کا استعمال، گھر اور ماحول میں ڈیزائن کا استعمال، کھانا پیش کرنے میں ڈیزائن کا استعمال

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