ACCELERATED
LEARNING
PROGRAMME
(ALP)

تسریع التعلّم پروگرام

برائے

سیکنڈری کلاسز

پنجاب کریکولم اینڈ ٹیکسٹ بُک بورڈ،لاہور

اُردو

درسی کتاب کے اسباق: (مصنّفین اور شعرا کے تعارف میں سے کوئی سوال نہیں بنایا جائے گا۔)

☆ **ہجرتِ نبوی صلی اللہ علیہ وسلم:**   کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج، د)، ۵، ۶، ۷، ۹، ۱۰

ہوم ورک: سوال نمبر ۱ (جز ہ، و، ز)، ۲، ۳، ۴، ۸

☆ **کاملی:**   کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج)، ۴، ۶، ۷، مضمون

ہوم ورک: سوال نمبر ۱ (جز د)، ۲، ۳، ۵، ۸

☆ **آرام و سکون:**   کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج، د)، ۳، ۴، ۶

ہوم ورک: سوال نمبر ۱ (جز ہ، و)، ۲، ۵، ۷، ۸

☆ **امتحان:**   کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج)، ۲، ۳، ۵، جملے کے اجزائے ترکیبی

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☆ **قدرِ ایاز:**   کلاس ورک: سوال نمبر ۱، ۲، ۶، ۷، ۹، ۱۰، روزمرہ اور محاورے کے لحاظ سے غلط فقرات کی درستی

ہوم ورک: ۳، ۴، ۵، ۸، ۱۱

☆ **حمد (نظم):**   کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج)، ۲، ۳، ۴، ۶، قافیہ، ردیف

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☆ **نعت (نظم):**   کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج)، ۲، ۴، ۵، ۸

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☆ **پیوستہ رہ شجر سے امید بہار رکھ (نظم):**   کلاس ورک: سوال نمبر ۱، ۲، ۵، ۸، ۱۰، ۱۱، ۱۲

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☆ **میر تقی میرؔ (غزل):**   کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج)، ۲، ۴، ۵، ۷، غزل، مطلع، مقطع

ہوم ورک: سوال نمبر ۱ (جز د، ہ)، ۳، ۶، ۸

☆ **اسد اللہ خاں غالبؔ (غزل):**   کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج)، ۲، ۳، ۴، کنایہ

ہوم ورک: سوال نمبر ۱ (جز د، ہ)، ۵، ۶، ۷، ۸

اُردو قواعد و انشا:

(الف) خطوط نویسی (صفحہ نمبر 62 تا 67):

کلاس ورک: ☆ والد کے نام (سکول میں امتحانی نتیجہ کی روداد بیان کرنا)   ☆ والدہ کے نام (موسم گرما کی تعطیلات کا ذکر) ☆ چچا کے نام (مزاج پرسی اور چچی کی بیماری پر تشویش ظاہر کرنا)

Duly Approved by the Competent Authority vide Letter No. SO(ER-II)1-9/2020 dated 24.08.2020

ہوم ورک: ☆ چھوٹے بھائی کے نام (اچھی صحبت اختیار کرنے کی نصیحت) ☆ دوست کے نام (ناراض دوست کو منانا)
☆ دوست کے نام (شادی کے موقع پر بے جا اسراف کی مذمّت کرنا)

(ب) عرائض نویسی (صفحہ نمبر 72، 73):
کلاس ورک: ☆ ہیڈ ماسٹر صاحب کے نام چھٹی کی درخواست ☆ سرٹیفکیٹ کے حصول کے لیے درخواست
ہوم ورک: ☆ بیماری کی درخواست

(ج) کہانی لکھنا (صفحہ نمبر 107 تا 114)
کلاس ورک: ☆ جس کا کام اسی کو ساجے ☆ سچ کی برکت ☆ اتفاق کی برکت
ہوم ورک: ☆ جھوٹ کی سزا ☆ دودھ میں پانی ☆ ہرنی کی دعا

(د) مکالمہ نگاری (صفحہ نمبر 78 تا 81):
کلاس ورک: ☆ مریض اور ڈاکٹر کے درمیان ☆ دکاندار اور خریدار کے درمیان
ہوم ورک: ☆ دو ہم جماعت دوستوں کے درمیان

(ہ) جملوں کی تکمیل (ضرب الامثال، صفحہ نمبر 45، 46): دی گئی تین مثالیں اور پہلی 20 ضرب الامثال

(و) جملوں کی درستی (صفحہ نمبر 34، 35): " نے" ،" کو" اور "فعل کی فاعل کے ساتھ مطابقت" کے حوالے سے جملوں کی درستی

ENGLISH

UNIT # 1: THE SAVIOUR OF MANKIND
Classwork: Glossary, Comprehension (B Qs: 1-4), Vocabulary (B & C), Grammar (B & C), Writing Skills (A)
Homework: Comprehension (B Qs: 5-8), Vocabulary (A & D), Grammar (A & D)
UNIT # 2: PATRIOTISM
Classwork: Glossary, Comprehension (A Qs: 1-5), Vocabulary (A & C), Grammar (A & B), Writing Skills (B)
Homework: Vocabulary (B), Grammar (C), Writing Skills (A)
UNIT # 4: HAZRAT ASMA رضی اللہ تعالٰی عنہا
Classwork: Glossary, Comprehension (A, B, C), Vocabulary (B), Grammar (A, B, D & E), Writing Skills (A)
Homework: Comprehension (D), Vocabulary (A), Grammar (C, F & G)
REVIEW-I is exclued.
UNIT # 5: DAFFODILS
Classwork: Glossary, Comprehension (A Qs: 1-5), Vocabulary (B & C), Grammar (C, D, E, F & G), Writing Skills (B)
Homework: Vocabulary (A), Grammar (A & B)
UNIT # 6: THE QUAID'S VISION AND PAKISTAN
Classwork: Glossary, Comprehension (A Qs:1-5), Vocabulary (A, D & E), Grammar (B, C, D, E & F), Writing Skills (B)

Homework: Vocabulary (B & C), Grammar (A)

UNIT # 7: SULTAN AHMAD MASJID

Classwork: Glossary, Comprehension (A Qs:1-6), Vocabulary (C & D), Grammar (B, C, D & E)

Homework: Vocabulary (A & B), Grammar (A)

(GRAMMAR & COMPOSITION)

LETTERS

Classwork: To your mother who is worried about your health, To your sister congratulating her on her success in the exams, To your father requesting him to send you some extra funds for the payments of hostel dues, To your friend condoling the death of his mother

Homework: To your friend congratulating her on her birthday, To your friend requesting him to lend you some books, To your sister thanking her for a gift

STORY WRITING

Classwork: A Farmer and His Sons, The Kindness of Rasool ﷺ, Robbers Turn into Good Citizens, The Muslim Brotherhood

Homework: A Friend in Need is a Friend Indeed, The Boy who cried "Wolf"

DIALOGUE WRITING

Between A Teacher and Student, Between Two students regarding Salaht

COMPREHENSION OF A PASSAGE

Classwork: (III), (IV), (V)   **Homework:** (VII), (IX)

COMPREHENSION OF A PASSAGE (EXERCISES)

Classwork: (5), (7), (9)   **Homework:** (13), (15)

ACTIVE AND PASSIVE VOICE (Pages 168-170)

TRANSLATION (TENSES)

All Translated Lessons of all tenses relating to affirmative, negative and interrogative sentences are included. All unsolved Excercises are excluded. (Pages 69-137)

MATHEMATICS (Science Group)

UNIT - 1: MATRICES AND DETERMINANTS

Classwork: Exercise: 1.1, Q: 1 (C), Q: 3, Exercise: 1.2, Q: 4 (A), Q: 5 (B), Q: 6 (i), Exercise: 1.3, Q: 1 (A), Q: 2 (B), Q: 3 (ii), Q: 4 (ii), Q: 5 (x), Q: 8 (i), Exercise: 1.4, Q: 1 (i,v), Q: 4 (a), Q: 5 (ii), Execise: 1.5, Q: 1 (ii), Q: 2 (i), Q: 3 (i), Q :6 (i), Exercise: 1.6, Q: 1 (iii), Q: 4

Homework: Exercise: 1.1, Q: 1 (G, H), Exercise: 1.2, Q: 1-3, Q: 4 (D), Q: 5 (C, E), Q: 6 (ii), Exercise: 1.3, Q: 1 (B-F), Q: 2 (C, F), Q: 3 (iv, vi), Q: 4 (vi), Q: 5 (vi-ix), Q: 8 (ii, vi), Exercise: 1.4, Q: 1 (ii-iv), Q: 4 (d, e), Q: 5 (iv), Q: 6 (ii), Execise: 1.5, Q: 2 (ii-iv), Q: 3 (iii, iv), Q: 6 (ii), Exercise: 1.6, Q: 1 (i, v), Q:3, Review Exercise: 1, Q: 1, Q: 3, Q: 5, Q: 7 (ii)

UNIT - 2: REAL AND COMPLEX NUMBERS
Classwork: Exercise: 2.1, Q: 1 (i, iii), Q: 2 (iii), Q: 3 (ii), Q: 4 (i), Q: 6 (ii), Exercise: 2.3, Q: 1 (i), Q: 2 (i), Q: 3 (ii), Exercise: 2.4, Q: 1 (i), Q: 3 (ii), Exercise: 2.5, Q: 1 (ii), Q: 2 (iii), Q: 3 (ii), Exercise: 2.6, Q: 1 (v), Q: 2 (iii), Q: 3 (i), Q: 4 (iii), Q: 6 (ii), Q: 7 (i)
Homework: Exercise: 2.1, Q: 1 (ii, iv-vi), Q: 2 (iv, vi), Q: 3(iii, v), Q: 4(ii, iv), Q: 6 (iii), Exercise: 2.3, Q: 1 (iii), Q: 2 (ii), Q: 3 (iii), Exercise: 2.4, Q: 1 (iv), Q: 3 (iii), Exercise: 2.5, Q: 1 (iv, vi), Q: 2 (v, vi), Q: 4, Exercise: 2.6, Q: 1 (vi), Q: 2 (iv), Q: 3 (iv), Q: 6 (vi), Q: 7 (ii), Review Exercise: 2, Q: 1, Q: 3 (ii, iv), Q: 4, Q: 5

UNIT -3: LOGARITHMS
Classwork: Exercise: 3.1, Q: 1 (iv), Q: 2 (ii), Exercise: 3.2, Q: 2 (iii), Q: 4 (ii), Q: 6 (i), Exercise: 3.3, Q: 1 (iii), Q: 3 (ii), Q: 4 (i), Q: 5 (iii), Exercise: 3.4, Q: 1 (i), Q: 4
Homework: Exercise: 3.1, Q: 1 (v), Q: 2 (iii), Exercise: 3.2, Q: 2 (iv), Q: 6 (iv, v), Exercise: 3.3, Q: 1 (v, vi), Q: 3 (iv), Q: 4 (ii), Q: 5 (iv), Exercise: 3.4, Q: 1 (iii, v, viii), Review Exercise: 3, Q: 1, Q: 3 (iii, iv), Q: 5 (ii), Q: 6 (i, iii)

UNIT- 4: ALGEBRAIC EXPRESSIONS AND ALGEBRAIC FORMULAS
Classwork: Exercise: 4.1, Q: 1 (iv), Q: 2 (i), Q: 3 (iii), Q: 4 (b), Q: 6 (v), Exercise: 4.2, Q: 3, 13, 14 (i), Exercise: 4.3, Q: 1 (iv), Q: 2 (v), Q: 3 (iv), Q: 4 (v), Exercise: 4.4, Q: 1 (i), Q: 2 (iii), Q: 3 (iii), Q: 5 (i),
Homework: Exercise: 4.1, Q: 1 (ii), Q: 2 (iii), Q: 3 (i, vi), Q: 6 (i, iii), Exercise: 4.2, Q: 5, 8, 11, 14 (ii), Exercise: 4.3, Q: 1 (ii), Q: 2 (i), Q: 3 (i), Q: 4 (i, iv), Exercise: 4.4, Q: 1 (vi, vii), Q: 2 (vii, viii), Q: 5 (ii), Review Exercise: 4, Q: 1, Q: 4 (ii), Q: 5, Q: 6 (iv), Q: 7 (iii), Q: 8 (i)

UNIT -5: FACTORIZATION
Classwork: Exercise: 5.1, Q: 1 (ii), Q: 3 (ii), Q: 4 (ii), Q: 5 (ii), Exercise: 5.2, Q: 1 (iii), Q: 2 (i), Q: 3 (v), Q: 4 (iii), Q: 5 (ii), Q: 6 (i), Exercise: 5.3, Q: 1 (iv), Q: 4, Exercise: 5.4, Q: 2
Homework: Exercise: 5.1, Q: 1 (v, vi), Q: 3 (iv), Q: 4 (iv), Q: 5 (v, vi), Exercise: 5.2, Q: 1 (v), Q: 2 (iv), Q: 3 (iv), Q: 4 (v), Q: 5 (iv), Q: 6 (iv), Exercise: 5.3, Q: 1 (i, v), Q: 5, Exercise: 5.4, Q: 8, Review Exercise: 5, Q: 1, Q: 3 (ii, v, ix)

UNIT- 6: ALGEBRAIC MANIPULATION
Classwork: Exercise: 6.1, Q: 1 (ii), Q: 2 (v), Q: 4 (ii), Q: 5 (iii), Q: 6, Exercise: 6.2, Q: 1, 11, Exercise: 6.3, Q: 1 (v), Q: 2 (v), Q: 3 (ii)
Homework: Exercise: 6.1, Q: 2 (i, iv), Q: 3 (i), Q: 5 (iv), Q: 8, Exercise: 6.2, Q: 4, Q: 6, Exercise: 6.3, Q: 1 (i, ii, vi), Q: 2 (i, ii), Q: 4 (i), Review Exercise: 6, Q:1, Q: 6 (ii), Q: 7

UNIT -7: LINEAR EQUATIONS AND INEQUALITIES
Classwork: Exercise: 7.1, Q: 1 (i, ix), Q: 2 (v), Exercise: 7.2, Q: 2 (iii, viii), Exercise: 7.3, Q: 1 (ii), Q: 2 (iii)
Homework: Exercise: 7.1, Q: 1 (ii, v, vi, x), Q: 2 (i, ii, viii), Exercise: 7.2, Q: 2 (v, vii), Exercise: 7.3, Q: 1 (iv), Q: 2 (iv), Review Exercise: 7, Q: 1, Q: 3 (i, iii), Q: 5 (i)

UNIT-8: LINEAR GRAPH AND THEIR APPLICATION
Classwork: Exercise: 8.1, Q: 1, Q: 2 (ii), Q: 3 (i), Q: 4 (b), Q: 5 (ii), Exercise: 8.2, Q: 3 (b), Q: 4 (iii), Exercise: 8.3, Q: 1
Homework: Exercise: 8.1, Q: 2 (iii, vii, viii), Q: 3 (v), Q: 4 (c), Q: 5 (v), Exercise: 8.2, Q: 3 (e), Q: 4 (iv), Exercise: 8.3, Q: 4, Review Exercise: 8, Q: 1, Q: 4 (ii, v)

UNIT-9: INTRODUCTION TO COORDINATE GEOMETRY DESCRIPTIVE GEOMETRY
Classwork: Exercise: 9.1, Q: 1 (a), Q: 2 (ii), Exercise: 9.2, Q: 1, 10, Exercise: 9.3, Q: 1 (a), Q: 3
Homework: Exercise: 9.1, Q: 1(c, f), Q: 2 (iii, vi), Exercise: 9.2, Q: 3, 4, 9, Exercise: 9.3, Q: 1 (d, f), Q: 2, Review Exercise: 9, Q: 1, Q: 3 (ii), Q: 4 (i, ii), Q: 5

UNIT-10: CONGRUENT TRIANGLES
Classwork: Review Exercise: 10, Q: (3, 4)
Homework: Review Exercise: 10, Q: (2, 5)

UNIT-11: PARALLELOGRAMS AND TRIANGLES
Classwork: Review Exercise: 11, Q: (3, 4)
Homework: Review Exercise:11, Q: (5, 6)

UNIT-12: LINE BISECTORS AND ANGLE BISECTORS
Classwork: Theorem 12.1.1, Theorem 12.1.4, Review Exercise:12, Q: 4
Homework: Theorem 12.1.1, Theorem 12.1.4, Review Exercise:12, Q: 5

UNIT-13: SIDES AND ANGLES OF A TRIANGLE
Classwork: Review Exercise:13, Q: (3, 5)
Homework: Review Exercise:13, Q: (2, 4)

UNIT-14: RATIO AND PROPORTION
Classwork: Review Exercise:14, Q: (3, 5, 6)
Homework: Review Exercise:14, Q: 2

UNIT-15: PYTHAGORAS' THEOREM
Classwork: Exercise:15, Q: 1 (i), Q: 3, Q: 6 (ii), Q: 7
Homework: Exercise:15, Q:1 (iv), Q: 8, Review Exercise: 15, Q: 2

UNIT-16: THEOREM RELATED WITH AREA
Classwork: Review Exercise: 16, Q: 2 (i, ii), Q: 3
Homework: Review Exercise:16, Q: 2 (iii, iv)

UNIT-17: PRACTICAL GEOMETRY-TRIANGLES
Classwork: Exercise: 17.1, Q: 1 (iv), Q: 2 (ii), Q: 4 (ii), Q: 5 (i), Exercise: 17.2, Q: 1 (ii), Q: 2 (iii), Q: 3 (i), Q: 4 (ii), Exercise: 17.3, Q: 1 (ii), Q: 3, Exercise: 17.5, Q: 1
Homework: Exercise: 17.1, Q: 1 (i, vi, vii), Q: 4 (iii), Q: 5 (ii), Exercise: 17.2, Q: 3 (ii), Q: 4 (iii), Exercise: 17.3, Q: 1 (i), Exercise: 17.5, Q: 4, 6, Review Exercise: 17, Q: 2, Q: 3

UNIT-1: PERCENTAGE, RATIO AND PROPORTION
Classwork: Exercise: 1.1, Q: 1 (iii, xi), Q: 2 (iv, xii), Q: 3 (i), Q: 4 (xii), Exercise: 1.2, Q: 1, 9, Exercise: 1.3, Q: 1 (i), Q: 2 (i, ix), Exercise: 1.4, Q: 1, 9, Exercise: 1.5, Q: 1, 11
Homework: Exercise: 1.1, Q: 1 (v, ix, xii), Q: 2 (vi, ix, xi), Q: 3 (iii, iv, x, xi), Q: 4 (i, iii, v, xi), Exercise:1.2, Q: 3, 6, 7, Exercise: 1.3, Q: 1 (iv, vi), Q: 2 (ii, iii, viii), Exercise:1.4, Q: 3, 5, 6, Exercise: 1.5, Q: 2, 5, 6, 10, Review Exercise: 1, Q: 1, Q: 3, Q: 6

UNIT-2: ZAKAT, USHR AND INHERITANCE
Classwork: Exercise: 2.1, Q: 1, 7, 12
Homework: Exercise: 2.1, Q: 3, 6, 9, 10, Review Exercise: 2, Q: 1, Q: 3, Q: 5

UNIT-3: BUSINESS MATHEMATICS
Classwork: Exercise: 3.1, Q: 1 (iii), Q: 3 (ii), Q: 5, Exercise: 3.2, Q: 1 (ii), Q: 6, Exercise: 3.3: Q: 1, 5
Homework: Exercise: 3.1, Q: 1 (i, v), Q: 3 (iv, v), Q: 7, Exercise: 3.2, Q: 2 (iii), Q: 4, 8, Exercise: 3.3, Q: 3 Review Exercise: 3, Q: 1, Q: 3, Q: 4

UNIT-4: FINANCIAL MATHEMATICS
Classwork: Exercise: 4.1, Q: 4, Exercise: 4.2, Q: 1, 10, 14, Exercise: 4.3, Q: 3, Exercise: 4.4, Q: 4, 7, Exercise: 4.5, Q: 5 (ii)
Homework: Exercise: 4.1, Q: 5, Exercise: 4.2, Q: 3, 6 , 12, Exercise: 4.3, Q: 1, 6, 9, Exercise: 4.4, Q: 3, 8, Exercise: 4.5, Q: 2 (ii), Review Exercise: 4, Q: 1, Q: 3

UNIT-5:CONSUMER MATHEMATICS
Classwork: Exercise: 5.1, Q: 1, 6, Exercise: 5.2, Q: 1(i), Q: 2 (ii), Q: 3 (ii), Exercise: 5.3, Q: 6 (ii)
Homework: Exercise: 5.1, Q: 2, 8, Exercise: 5.2, Q: 1 (ii, vi), Q: 2 (iii), Q: 3 (v, vi), Exercise: 5.3, Q: 2,5, Review Exercise: 5, Q: 1, Q: 3, Q: 4

UNIT-6: EXPONENTS AND LOGARITHMS
Classwork: Exercise: 6.1, Q: 1 (ii), Q: 2 (iii), Q: 3 (iii), Q: 4 (iii, vii, xi), Q: 5 (viii, ix, xi), Exercise: 6.2, Q: 1 (ii), Q: 3, 15, 18, 27 (iii), Q: 28 (ii), Q: 29 (iii), Exercise: 6.3, Q: 8, 10, 15, Exercise: 6.4, Q: 1 (i), Q: 2 (ii), Q: 3 (ii), Q: 4 (iii), Exercise: 6.5, Q: 2 (ii), Q: 4 (ii), Q: 5 (ii), Q: 8 (i),Q: 10
Homework: Exercise: 6.1, Q: 1 (v, vi), Q: 2 (iv), Q: 3 (ii, vii, viii), Q: 4 (i, viii, xii), Q: 5 (ii, iv, xiii),
Exercise: 6.2, Q: 1 (v, vi), Q: 6, 9, 13, 17, 21, 24, 26 (i, vi), Q: 28 (i, v), Q: 29 (i, iv, viii), Exercise: 6.3, Q: 1, 4, 12, 13, Exercise: 6.4, Q: 1 (ii, vi), Q: 2 (i, v), Q: 4 (ii), Exercise: 6.5, Q: 1 (ii), Q: 2 (iv, v), Q: 3 (ii), Q: 5 (iv), Q: 8 (v, vi),
Review Exercise: 6, Q: 1, Q: 3 (i), Q: 4 (ii), Q: 6 (i, ii)

UNIT-7: ARITHMETIC AND GEOMETRIC SEQUENCES
Classwork: Exercise: 7.1, Q: 1 (iv), Q: 2 (ii), Q: 3 (v), Exercise: 7.2, Q: 1 (ii), Q: 2 (ii), Q: 5 (vii), Exercise: 7.3. Q: 1 (ii), Q: 5, Exercise: 7.4, Q: 3, 12, Exercise: 7.5, Q: 1 (iii), Q: 3 (ii), Q: 4
Homework: Exercise: 7.1, Q: 1 (i, viii, ix), Q: 2 (v, vi), Q: 3 (i, ii), Exercise: 7.2, Q: 1 (iii, v), Q: 2 (i, iv, vi), Q: 5 (ix), Exercise: 7.3, Q: 1 (iv), Q: 3, 7, 8, Exercise: 7.4,

Q: 1, 4, 8, 10, Exercise: 7.5, Q: 2 (ii), Q: 12, Review Exercise: 7, Q:1, Q: 3, Q: 5, Q: 7

UNIT-8: SETS AND FUNCTIONS
Classwork: Exercise: 8.1, Q: 5, Exercise: 8.2, Q: 4, 5
Homework: Exercise: 8.1, Q: 6, 7, Exercise: 8.2, Q: 2, 7, Review Exercise: 8, Q: 1, Q: 4, Q: 5

UNIT -9: LINEAR GRAPH
Classwork: Exercise: 9.1, Q: 1 (i), Q: 3 (ii), Exercise: 9.2, Q: 2 ,Q: 11 (i), Exercise: 9.3, Q: 1 (a), Q: 3 (a)
Homework: Exercise: 9.1, Q: 1 (iv, vi, viii), Q: 3 (iii), Exercise: 9.2, Q: 1, 5, 9, Q: 12, Exercise: 9.3, Q: 1 (b), Q: 3 (b), Review Exercise: 9, Q: 1,Q: 3 (i), Q: 4 (iii, iv)

UNIT -10: BASIC STATISTICS
Classwork: Exercise: 10.1, Q: 1, Exercise: 10.2, Q: 1 (i), Q: 3, Exercise: 10.3, Q: 1 (i), Exercise: 10.4, Q: 1 (i)
Homework: Exercise: 10.1, Q: 3, Exercise: 10.2, Q: 1 (iii), Exercise: 10.3, Q:1 (iv), Exercise: 10.4, Q: 1 (iv, v), Review Exercise: 10, Q: 1, Q: 3, Q: 5

اسلامیات (لازمی)

الجزء الاول: من ھدی القرآن الکریم، سورۃ الانفال
الدرس الاول، الف
کلاس ورک: مشقی سوالات، سوال نمبر 1   ہوم ورک: مشقی سوالات، سوال نمبر 2 تا3
الدرس الاول، ب
کلاس ورک: مشقی سوالات، سوال نمبر 1 تا 2   ہوم ورک: مشقی سوالات، سوال نمبر 3 تا4
الدرس الاول، ج
کلاس ورک: مشقی سوالات، سوال نمبر 1 تا 2   ہوم ورک: مشقی سوالات، سوال نمبر 3
الدرس الثانی، الف
کلاس ورک: مشقی سوالات، سوال نمبر 1 تا 2   ہوم ورک: مشقی سوالات، سوال نمبر 3 تا4
الجزء الثانی: من ھدی الحدیث
حدیث نمبر 1
کلاس ورک: حدیث نمبر 1 کے متن کی درست تلفظ کے ساتھ ادائیگی کرنا، ترجمہ اور تشریح کرنا
ہوم ورک: ترجمہ اور تشریح نوٹ بک پر لکھنا اور یاد کرنا
حدیث نمبر 2
کلاس ورک: حدیث نمبر 2 کے متن کی درست تلفظ کے ساتھ ادائیگی کرنا، ترجمہ اور تشریح کرنا
ہوم ورک: ترجمہ اور تشریح نوٹ بک پر لکھنا اور یاد کرنا

حدیث نمبر 4

کلاس ورک: حدیث نمبر 4 کے متن کی درست تلفظ کے ساتھ ادائیگی کرنا، ترجمہ اور تشریح کرنا

ہوم ورک: ترجمہ اور تشریح نوٹ بک پر لکھنا اور یاد کرنا

حدیث نمبر 6

کلاس ورک: حدیث نمبر 6 کے متن کی درست تلفظ کے ساتھ ادائیگی کرنا، ترجمہ اور تشریح کرنا

ہوم ورک: ترجمہ اور تشریح نوٹ بک پر لکھنا اور یاد کرنا

حدیث نمبر 8

کلاس ورک: حدیث نمبر 8 کے متن کی درست تلفظ کے ساتھ ادائیگی کرنا، ترجمہ اور تشریح کرنا

کلاس ورک: ترجمہ اور تشریح نوٹ بک پر لکھنا اور یاد کرنا

الجزءالثالث

قرآن مجید (تعارف، حفاظت اور فضائل)

کلاس ورک: مشقی سوالات، سوال نمبر 1 تا 2   **ہوم ورک:** مشقی سوالات، سوال نمبر 3

اللہ تعالیٰ اور اس کے رسول صلی اللہ علیہ وآلہ وسلم کی محبت و اطاعت

کلاس ورک: مشقی سوالات، سوال نمبر 1 تا 2   **ہوم ورک:** مشقی سوالات، سوال نمبر 3

مطالعۂ پاکستان

باب 1: پاکستان کی نظریاتی اساس

نظریہ کی تعریف، ماخذ اور اہمیت (نظریہ)، نظریہ کے ماخذ (مشترکہ مذہب، مشترکہ سیاسی مقاصد، مشترکہ تعلیمی مقاصد، مشترکہ معاشی مقاصد، مشترکہ ثقافتی مقاصد)، نظریہ کی اہمیت، نظریۂ پاکستان کا مفہوم، اسلامی ریاست اور اقلیتوں کے حقوق، نظریۂ پاکستان کے عناصر (عقائد عبادات، قانون کی حکمرانی، اخوت و مساوات، عدل و انصاف)، برصغیر کے مسلمانوں کی مذہبی، ثقافتی، سماجی و معاشی محرومی کے حوالے سے دوقومی نظریہ کی ابتدا اور ارتقا کی وضاحت (دوقومی نظریہ: ابتدا اور ارتقا کی وضاحت، برصغیر میں دوقومی نظریے کی ابتدا، سرسید احمد خان اور دوقومی نظریہ، چوہدری رحمت علی اور دوقومی نظریہ)، علامہ محمد اقبال رحمۃ اللہ علیہ اور قائد اعظم محمد علی جناح رحمۃ اللہ علیہ کے ارشادات کی روشنی میں نظریۂ پاکستان کی وضاحت (نظریۂ پاکستان اور علامہ محمد اقبالؒ، نظریۂ پاکستان اور قائد اعظمؒ)۔

کلاس ورک: مشقی سوالات: سوال 1 (مکمل)، سوال 2 (i,iii-v)، سوال 3 (مکمل)

ہوم ورک: مشقی سوالات: سوال 4 (i-iv,vi)، سوال 5 (i-iv,vi)

باب 2: تحریکِ پاکستان اور پاکستان کا قیام

تحریکِ پاکستان کا پس منظر، تحریکِ علی گڑھ اور سرسید احمد خان، تقسیم بنگال، شملہ وفد، مسلم لیگ کا قیام، میثاقِ لکھنو، تحریکِ خلافت، تحریکِ ہجرت، نہرو رپورٹ، قائد اعظمؒ کے چودہ نکات، علامہ محمد اقبالؒ کا خطبہ الہ آباد، قرارداد لاہور، 3 جون 1947ء کا منصوبہ، قانون آزادی ہند 1947ء، ریڈ کلف ایوارڈ، صبحِ آزادی، قائد اعظم محمد علی جناح رحمۃ اللہ علیہ کی سیاسی اور آئینی کوششوں کے حوالے سے قیام پاکستان میں کردار، گورنر جنرل کی حیثیت سے قائد اعظم محمد علی جناح رحمۃ اللہ علیہ کی خدمات اور کارنامے، قرارداد

Duly Approved by the Competent Authority vide Letter No. SO(ER-II)1-9/2020 dated 24.08.2020

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مقاصد، پاکستان - بھارت جنگ 1965ء، جنگ کے اہم واقعات، جنگ کے اثرات، مشرقی پاکستان کی علیحدگی اور بنگلہ دیش کا قیام، مشرقی پاکستان کی علیحدگی کے اسباب۔

کلاس ورک: مشقی سوالات: سوال 1(i-v,vii,x)، سوال 2(i-iii)، سوال 3(ii-iv)

ہوم ورک: مشقی سوالات: سوال 4(i-vi)، سوال 5(i-v,x)

باب 3: زمین اور ماحول

پاکستان کا محل وقوع، محل وقوع کی اہمیت، آب و ہوا کے انسانی زندگی پر اثرات، گلیشیر، گلیشیرز کی اہمیت، پاکستان کے دریا، جنگلات، جنگلات کی اہمیت، اہم ماحولیاتی مسائل اور ان کا حل، آلودگی، جنگلات کا کٹاؤ، سیم و تھور۔

کلاس ورک: مشقی سوالات: سوال 1(ii,iv)، سوال 2(مکمل)، سوال 4(i,iii-v)

ہوم ورک: مشقی سوالات: سوال 3(i,iv-vi,ix-x)، سوال 5(i,iii,iv,vi,vii)

باب 4: خواتین کو با اختیار بنانا

قرآن و سنّت کی روشنی میں اسلام میں خواتین کے حقوق، تحریکِ پاکستان میں خواتین کا کردار، قیامِ پاکستان 1947ء سے عہدِ حاضر تک قومی ترقی میں خواتین کی خدمات، تشدّد اور خواتین پر تشدّد کی تعریف، پاکستان میں خواتین پر تشدّد کے خاتمے کے لیے حکومتی سطح پر اقدامات، خواتین کے تحفظ اور ان کو با اختیار بنانے میں حکومتی کردار۔

کلاس ورک: مشقی سوالات: سوال 1(مکمل)، سوال 2(مکمل)

ہوم ورک: مشقی سوالات: سوال 3(مکمل)، سوال 4(مکمل)

PHYSICS

(Note: All questions given in "Mini Exercises and Quick Quizzes" are excluded.)

CHAPTER 1: PHYSICAL QUANTITIES AND MEASUREMENT

Physical Quantities (Pg. 4), Base Quantities (Pg. 5), Derived Quantities (Pg. 5), International System of Units (Pg. 5), Base Units (Pg. 5, 6), Derived Units (Pg. 6), Prefixes (Pg. 7, 8), Scientific Notation (Pg. 8), Vernier Callipers (Pg. 10, 11), Significant Figures (Pg. 20-22), Example: 1.4 (Pg. 22)

Exercise:

Classwork: Q : 1.1 (iv, v, vii, x) (Pg. 24) (1.4-1.7, 1.13) (Pg. 25), Problems: (1.2, 1.6, 1.8) (Pg. 25, 26)

Homework: Q: 1.1 (i-iii) (Pg. 24) (1.2, 1.3, 1.8, 1.12) (Pg. 24, 25), Problems: (1.4, 1.5, 1.9) (Pg. 25, 26)

CHAPTER 2: KINEMATICS

Rest and Motion (Pg. 29), Scalars and Vectors (Pg. 33, 34), Terms Associated with Motion (Pg. 34-39), Graphical Analysis of Motion (Pg. 40), Distance-Time Graph (Pg. 40, 41), Speed-Time Graph (Pg. 42, 43), Equations of Motion (Pg. 44-46), Motion of Freely Falling Bodies (Pg. 49), Examples: 2.4-2.8, 2.10 (Pg. 39-43, 46, 47)

Exercise:
Classwork: Q: 2.1 (iv-vi, ix, x, xii) (Pg. 52, 53), (2.6-2.8, 2.13) (Pg. 53, 54),
Problems: (2.3-2.5, 2.8) (Pg. 54)
Homework: Q: 2.1 (iii, viii, xi) (Pg. 52, 53), (2.4, 2.5, 2.9, 2.10) (Pg. 53),
Problems: (2.1, 2.2, 2.6) (Pg. 54)

CHAPTER 3: DYNAMICS

Force, Inertia and Momentum (Pg. 57-59), Newton's Laws of Motion (Pg. 59, 60, 63, 64), Mass and Weight (Pg. 62, 63), Force and Momentum (Pg. 67, 68), Law of Conservation of Momentum and its Daily Life Applications (Pg. 69-71), Friction, Coefficient of Friction (F= μR)   (Pg. 72, 73), Rolling Friction (Pg. 74, 75), Centripetal Force (Pg. 77, 78), Examples: 3.1, 3.3, 3.6, 3.8 (Pg. 61, 62, 68, 69, 78, 79)
Exercise:
Classwork: Q: 3.1 (iii, viii) (Pg. 81,82), (3.3, 3.6, 3.7, 3.9, 3.10, 3.12, 3.13) (Pg. 82),
Problems: (3.5, 3.9) (Pg. 83)
Homework: Q: 3.1 (i, ii, v, vii, ix) (Pg. 81, 82), (3.2, 3.4, 3.11, 3.16, 3.17) (Pg. 82),
Problems: (3.1, 3.3, 3.8, 3.10) (Pg. 83)

CHAPTER 4: TURNING EFFECT OF FORCES

Like and Unlike Parallel Forces (Pg. 86), Addition of Forces (Pg. 86, 87), Head to Tail Rule (Pg. 87), Resolution of Forces (Pg. 88-90), Torque or Moment of a Force (Pg. 90-92), Principle of Moments   (Pg. 92), Centre of Gravity   (Pg. 94-96), Equilibrium   (Pg. 97), First Condition of Equilibrium   (Pg. 97, 98), Second Condition of Equilibrium (Pg. 98, 99), Examples: 4.2-4.5 (Pg. 89, 92, 93, 98)
Exercise:
Classwork: Q 4.1: (iv, vi) (Pg. 104), (4.4, 4.5, 4.7-4.9, 4.11) (Pg. 104, 105),
Problems: (4.1, 4.3, 4.7, 4.8) (Pg. 105)
Homework: Q 4.1 : (ii, iii) (Pg. 104), (4.6, 4.10) (Pg. 104, 105),
Problems: (4.2, 4.4, 4.5) (Pg. 105)

CHAPTER 5: GRAVITATION

The Force of Gravitation (Pg. 107), Law of Gravitation (Pg. 107, 108), Law of Gravitation and Newton's Third Law of Motion (Pg. 108), Mass of Earth (Pg. 110), Artificial Satellites (Pg. 112, 113), Examples: 5.1, 5.2 (Pg. 108, 109, 111, 112)
Exercise:
Classwork: Q 5.1: (ii) (Pg. 114), (5.8-5.10) (Pg. 115) Problems: (5.4, 5.9) (Pg. 115, 116)
Homework: Q 5.1: (i, iv) (Pg. 114), (5.2, 5.3, 5.16) (Pg. 115)
Problems: (5.1-5.3, 5.7) (Pg. 115, 116)

CHAPTER 6: WORK AND ENERGY

Energy (Pg. 121), Kinetic Energy (K.E.=$\frac{1}{2} mv^2$) (Pg. 121, 122), Potential Energy (P.E.=mgh) (Pg. 123, 124), Efficiency (Pg. 136), Power (Pg. 137), Examples: 6.2, 6.3, 6.5, 6.7 (Pg. 122-124, 136-139)

Exercise:

CHAPTER 7: PROPERTIES OF MATTER

Density (Pg. 147), Pressure (Pg. 148, 149), Atmospheric Pressure only (Pg. 149), Pressure in Liquids (Pg. 151, 152), Pascal's Law (Pg. 152), Application of Pascal's Law, Hydraulic Press (Pg. 152, 153), Elasticity (Pg. 160, 161), Hooke's Law (Pg. 161), Young's Modulus (Pg. 162), Examples: 7.1, 7.2, 7.7 (Pg. 148, 153, 154, 162, 163)

Exercise:

CHAPTER 8: THERMAL PROPERTIES OF MATTER

Temperature and Heat (Pg. 169, 170), Specific Heat Capacity (Pg. 174, 175), Importance of Large Specific Heat Capacity of Water (Pg. 175), Heat Capacity (Pg. 176), Change of State (Pg. 177), Latent Heat of Fusion (Pg. 178, 179), Latent Heat of Vaporization (Pg. 180-182), The Evaporation (Pg. 182,183), Thermal Expansion (Pg. 183, 184), Linear Thermal Expansion in Solids (Pg. 184), Volume Thermal Expansion (Pg. 185, 186), Examples: 8.5-8.7 (Pg. 175, 176, 184-187)

Exercise:

CHAPTER 9: TRANSFER OF HEAT

Transfer of Heat (Pg. 195), Conduction (Pg. 195, 196), Thermal Conductivity (Pg. 196, 197), Convection (Pg. 199), Convection Currents in Air (Pg. 200), Use of Convection Currents (Pg. 200), Land and Sea Breezes only (Pg. 200, 201), Radiation (Pg. 201, 202), Example: 9.1 (Pg. 198, 199)

Exercise:

EXPERIMENTS:

1. To measure the Volume of a Solid Cylinder by measuring Length and Diameter of a Solid Cylinder with Vernier Callipers.
2. To find the Value of "g" by Free Fall Method.
3. Investigate the Relationship between Force of Limiting Friction and Normal Reaction to find the Co-efficient of Sliding Friction between a Wooden Block and Horizontal Surface.
4. To determine the Resultant of two forces graphically using a Horizontal Force Table.

5.   To find the Weight of an unknown object by using Principle of Moments.
6.   To study the Effect of the Length of Simple Pendulum on Time and hence find "g" by calculation.
7.   To study the Relationship between Load and Extension (Helical Spring) by drawing a graph.
8.   To find the Specific Heat by the method of mixture using Polystyrene Cups (used as container of negligible Heat Capacity).
9.   To measure the Specific Heat of Fusion of Ice.

CHEMISTRY

(Note: All questions given in "Test Yourself" are excluded.)
CHAPTER NO. 1: FUNDAMENTALS OF CHEMISTRY
Basic Definitions (matter, substance, homogeneous and heterogeneous mixture, physical and chemical properties), Elements, Compound and Mixture, Difference between a compound and a mixture, Atomic Number and Mass Number, Example 1.1, Relative Atomic Mass and Relative Mass Unit, Empirical formula and Molecular formula, Molecular mass and Formula mass, Examples 1.2, 1.3 (Pg. 2-14), Types of Molecules, Avogadro's Number, Mole and Molar mass, Example 1.4, Chemical Calculations, Mole-Mass Calculations, Example 1.5, Mole-Particle Calculations, Examples: 1.6, 1.7 (Pg. 16-22)
Practicals:
1. Separate the given mixture of iron filings and sand by physical method.
Questions:
Classwork: Multiple Choice Questions (6-13) (Pg. 24-25)
Homework: Short Answer Questions (4-8, 10-12, 14-17, 19) (Pg. 25-26);
Long Answer Questions (1, 2, 4) (Pg. 26); Numericals (1, 3, 4, 6, 7, 9) (Pg. 26)
CHAPTER 2: STRUCTURE OF ATOMS
Rutherford's Atomic Model, Defects in Rutherford's Model, Bohr's Atomic Theory, Electronic Configuration, Examples: 2.1, 2.2, 2.3, Electronic Configuration of First 18 Elements (Pg. 31-37)
Practicals:
No Practical
Questions:
Classwork: Multiple Choice Questions (3, 4, 7, 8) (Pg. 42)
Homework: Short Answer Questions (3-8, 12, 13); (Pg. 42-43);
Long Answer Questions (4-8) (Pg. 43)
CHAPTER 3: PERIODIC TABLE AND PERIODICITY OF PROPERTIES
Periodic Law, Modern Periodic Table, Long Form of Periodic Table, Salient Features of Long Form of Periodic Table, Periods, Groups, Periodicity of Properties, Atomic Size and Atomic Radius, Shielding Effect, Ionization Energy, Electron Affinity, Electronegativity (Pg. 46-56)

Practicals:
No Practical
Questions:
Classwork: Multiple Choice Questions (1, 2, 4, 5, 6, 7, 9, 10) (Pg. 56-57)
Homework: Short Answer Questions (3, 4, 7-9) (Pg. 57);
Long Answer Questions (8-10) (Pg. 57)

CHAPTER 4: STRUCTURE OF MOLECULES

Chemical Bonds, Types of Chemical Bond, Ionic Bond, Covalent Bond and its types, Dative or Coordinate Covalent Bond, Polar and Non-Polar Covalent Bond, Metallic Bond, Intermolecular Forces (Dipole-Dipole Interaction, Hydrogen Bonding) (Page 59-68)
Practicals:
No Practical
Questions:
Classwork: Multiple Choice Questions (5-8, 11-13, 17) (Pg. 72-73)
Homework: Short Answer Questions (4, 7, 8, 10-14) (Pg. 73-74);
Long Answer Questions (1, 4-8) (Pg. 74)

CHAPTER 5: PHYSICAL STATES OF MATTER

Boyle's Law, Experimental Verification of Boyle's Law, Examples 5.1, 5.2, Charles's Law, Experimental Verification of Charles's Law, Absolute Temprature Scale, Examples: 5.3, 5.4 (Pg. 78-83), Evaporation, Vapour Pressure (Pg. 84-88)
Practicals:
1. Determine the melting point of naphthalene.
2. Determine the boiling point of ethyl alcohol.
3. Separate the given mixture of alcohol and water by distillation.
Questions:
Classwork: Multiple Choice Questions (7, 11) (Pg. 93)
Homework: Short Answer Questions (4, 7) (Pg. 94); Long Answer Questions (1-3) (Pg. 94); Numericals (2-5, 7-9) (Pg. 94-95)

CHAPTER 6: SOLUTIONS

Solution, Aqueous Solutions, Saturated Solution, Unsaturated Solution, Supersaturated Solution, Dilution of Solution (Pg. 97-99), Concentration Units, Percentage (Mass/Mass Percentage, Mass/Volume Percentage, Volume/Mass Percentage, Volume/Volume Percentage), Example 6.1, Molarity, Preparation of Molar Solution, Examples: 6.2, 6.3, Dilution of Solution, Solubility Only (Pg. 100-104)
Practicals:
1. Prepare 100cm^3 of 0.1M Sodium Carbonate (Na_2CO_3) solution.
2. Prepare 100cm^3 of 0.1M Sodium Hydroxide (NaOH) solution from the given 1M solution.
3. Demonstrate that temperature affects solubility.

Questions:

CHAPTER 7: ELECTROCHEMISTRY

Oxidation and Reduction Reactions, Oxidation and Reduction in terms of Loss or Gain of Electrons, Oxidation State and Rules for Assigning Oxidation State, Examples: 7.1, 7.2, 7.3, Oxidizing and Reducing Agents, Oxidation-Reduction Reactions, Electrochemical Cells, Concept of Electrolytes (Weak and Strong Electrolytes), Non-electrolyte (Pg. 114-121) Corrosion and its Prevention, Rusting of Iron, Prevention of Corrosion, Prevention of Corrosion by Physical Methods, Electroplating (Electroplating of Silver and Chromium) (Pg. 128-131)

Practicals:

No Practical

Questions:

CHAPTER 8: CHEMICAL REACTIVITY

Metals, Electropositive Character, Trends of Electropositivity, Electropositivity and Ionization Energy (Pg. 138-141), Inertness of Noble Metals (Silver, Gold and Platinum), Non-Metals, Physical and Chemical Properties of Non-Metals, Comparison of Reactivity of the Halogens, Important Reactions of Halogens (Reaction with hydrogen, water, methane and NaOH) (Pg. 144-148)

Practicals:

1. Demonstrate that Some Chemical Processes Absorb Energy.

Questions:

BIOLOGY

CHAPTER 1: INTRODUCTION TO BIOLOGY

Introduction to Biology, Divisions and Branches of Biology (Pg. 2-3), Quran and Biology (Pg. 6-7), The Levels of Organization (Pg. 7-13)

Practicals:

1. Study of external morphology of mustard plant and microscopic examination of root, stem, leaf, flower, fruit and seeds
2. Identification of major organs and organ systems in a dissected frog (Dissection by demonstrator / teacher)

Questions:

Homework: Understanding the Concepts (Qs: 1, 2, 3, 5, 6, 7), Short Question (1) (Pg. 18)

CHAPTER 2: SOLVING THE BIOLOGICAL PROBLEM

Biological Method, Biological Problem, Hypothesis, Deductions and Experiments, (Pg. 20-23) Theory, Law and Principle, Data Organization and Data Analysis (Pg. 26-28)

Practicals:

No Practical

Questions:

Classwork: Multiple Choice Questions (1-9) (Pg. 29-30)

Homework: Understanding the Concepts (Q: 3), Short Questions (1, 2) (Pg. 30)

CHAPTER 3: BIODIVERSITY

Biodiversity, Importance of Biodiversity, Classification, Aims of Classification, Basis of Classification, Taxonomic Hierarchy, Species-Basic Unit of Classification (Pg. 31-35), Five Kingdom Classification System, The Five Kingdoms, Binomial Nomenclature (Pg. 37-40)

Practicals:

No Practicals

Questions:

Classwork: Multiple Choice Questions (1-11) (Pg. 48-49)

Homework: Understanding the Concepts (Qs: 1-5), Short Questions (1-3, 5) (Pg. 49)

CHAPTER 4: CELL BIOLOGY

Cellular Structures and Functions, Cell Wall, Cell Membrane, Cytoplasm, Cell Organelles, Nucleus, Ribosomes, Mitochondria, Plastids, Endoplasmic Reticulum, Golgi Apparatus, Lysosomes, Centrioles, Vacuoles , Difference between Prokaryotic and Eukaryotic Cells (Pg. 57-66), Passage of Molecules Into and Out of Cells, Diffusion, Facilitated Diffusion, Osmosis, Filtration, Active Transport, Endocytosis, Exocytosis (Pg. 69-74)

Practicals:

1. Identify from fresh preparations, the cell membrane, nucleus and cytoplasm in an animal cell and the cell wall, cell membrane, sap vacuole, cytoplasm, nucleus and chloroplasts in a plant cell

Questions:

Classwork: Multiple Choice Questions (1, 3-15) (Pg. 83-84)

Homework: Understanding the Concepts (Qs: 1-5, 6, 7), Short Questions (2-3) (Pg. 84)

CHAPTER 5: CELL CYCLE

Cell Cycle, Mitosis, Phases of Mitosis, Significance of Mitosis (Pg. 87-93), Meiosis, Phases of Meiosis, Significance of Meiosis (Pg. 95-100), Comparison between Mitosis and Meiosis (Pg. 101)

Practicals:

1. Observation of various stages of mitosis and meiosis by slides, model and charts

Questions:

Classwork: Multiple Choice Questions (1-15) (Pg. 104-105)

Homework: Understanding the Concepts (Qs: 1-8), Short Questions (1-4) (Pg. 105)

CHAPTER 6: ENZYMES

Enzymes, Characteristics of Enzymes (Pg. 107-109), Mechanism of Enzyme Action (Pg. 111-112)

Practicals:

1. Experiment to show working of enzyme in vitro e.g. Pepsin working on meat in test tube

Questions:

Classwork: Multiple Choice Questions (1-4) (Pg. 115)

Homework: Understanding the Concepts (Qs: 1, 2, 7), Short Question (1) (Pg. 116)

CHAPTER 7: BIOENERGETICS

Oxidation-Reduction Reactions, ATP - The Cell's Energy Currency, Photosynthesis, Mechanism of Photosynthesis, Light Reactions, Dark Reactions (Pg. 118-122), Respiration, Aerobic and Anaerobic Respiration (Excluding importance of fermentation) (Pg. 130-131), Tables: 7.1, 7.2 (Pg. 135, 136)

Practicals:

1. Demonstration of the process of photosynthesis using an aquatic plant, like Hydrilla

2. Investigation of the release of carbon dioxide and heat during Aerobic Respiration in germinating seeds

Questions:

Classwork: Multiple Choice Questions (3, 4, 9) (Pg. 137)

Homework: Understanding the Concepts (Qs: 4, 5, 7, 8), Short Questions (1-4) (Pg. 137-138)

CHAPTER 8: NUTRITION

Components of Human Food, Carbohydrates, Lipids, Proteins, Minerals (Excluding Role of Calcium and Iron), Table 8.2 (Pg. 143-144), Vitamins (Table 8.3: Functions, deficiencies and sources of important Vitamins - Table only) (Pg. 146), Effects of Water and Dietary Fiber, Digestion in Humans, Human Alimentary Canal, Role of Liver (Pg. 157-164)

Practicals:

1. Microscopic examination of a transverse section of the small intestine to show the villi

Questions:

Classwork: Multiple Choice Questions (1, 2, 4, 5, 7, 11, 13, 15) (Pg. 167- 168)

Homework: Understanding the Concepts (Qs: 3, 4, 6, 10-11), Short Questions (1, 3, 5) (Pg.168- 169)

CHAPTER 9: TRANSPORT

Transport in Plants, Water and Ion Uptake, Transpiration, Opening and Closing of Stomata
(Pg. 171-174), Significance of Transpiration (Pg. 176), Transport of Water, Transport of Food , Transport in Human, Blood, Blood Plasma, Blood Cells, (Pg. 181-187), Human Heart, Pulmonary and systemic circulation, Heart Beat, Heart Rate and Pulse Rate
(Pg. 192-196), Blood Vessels (Excluding arteries, veins and capillaries – keeping only Table 9.1 of Comparison of arteries, capillaries and veins) (Pg. 199), Cardiovascular Disorders, Atherosclerosis and Arteriosclerosis, Myocardial Infarction (Pg. 202-204)

Practicals:
1. Observation of root hairs on a growing root of onion, carrot etc.
Identification of red and white blood cells under the light microscope on prepared slides and in diagrams   and photomicrographs
Questions:
Classwork: Multiple Choice Questions (1-5, 7-10, 12-17, 19) (Pg. 205-206)
Homework: Understanding the Concepts (Qs: 1, 2, 6, 10, 14, 15),
Short Questions (1, 2, 4, 6-8) (Pg. 207)

COMPUTER SCIENCE

UNIT 1: PROBLEM SOLVING
Problem Solving Steps (Pg. 2-6), Flowcharts (Pg. 6-8), Examples of Flowcharts (1, 4, 6, 7, 8, 11) (Pg. 8-15), Algorithm (Pg.15), Definition (Pg. 15-16), Formulation of an Algorithm (Pg. 17), Examples of Algorithms (1, 2, 5, 7, 9), Efficiency of Algorithms (Pg. 21-23), Identification of Errors(Pg. 27-29)
Classwork: Q: 1.1 (1-4) (Pg. 30), Q: 1.2 (Pg. 30-31), Q. 1.3 (Pg. 31), Q. 1.4 (1, 3, 5) (Pg. 31)
Homework: Q: 1.1 (5) (Pg. 30), Q. 1.4 (2,4) (Pg. 31)

UNIT 2: BINARY SYSTEM
Introduction to Number Systems (Pg. 34), Number System Conversion (Decimal to Binary and Binary to Decimal, Hexadecimal to Binary and Binary to Hexadecimal) (Pg. 35-39), Memory and Data Storage (39-40), Measurement of Size of Computer Memory(Pg. 43), Boolean Algebra (Boolean Preposition, Truth Values, Logical Operators (AND, OR, NOT), Truth Table (Pg. 44-47), Logical Expressions (Pg. 49-50)
Classwork: Q: 2.1 (Pg. 51), Q. 2.2 (2, 3, 5) (Pg. 51-52), Q. 2.3, Q. 2.4 (Pg. 52)
Homework: Q: 2.2 (4) (Pg. 51), Activity 2.8 (Pg. 52)

UNIT 3: NETWORKS
Computer Networks (Pg. 54-56), Basics of Data Communication (Pg. 60-62), Computer Network Models (Pg. 62-64), Protocols in TCP/IP Suit (Pg. 64-65), Understanding IP Addressing (Pg. 67-68), Routing (Pg. 68-69)
Classwork: Q: 3.1 (Pg. 71), Q. 3.2 (Pg. 71-72), Q. 3.3 (1-3) (Pg. 72), Q. 3.4 (4) (Pg. 72)
Homework: Q: 3.3 (4-7), Q. 3.4 (2) (Pg. 72)

UNIT 4: DATA AND PRIVACY
Introduction (Pg. 74) Ethical Issues Related to Security (Pg.74-78), Simple Encryption (Pg. 81-85), Encryption with Keys and Passwords (Pg. 89-90), Cybercrime (Pg. 90-91)
Classwork: Q: 4.1 (Pg. 96), Q. 4.2, Q. 4.3(1, 5) (Pg. 96)
Homework: Q: 4.3 (2,4) (Pg. 97), Activity 4.8 (Pg. 97)

UNIT 5: DESIGNING WEBSITE
Introduction to HTML (Pg. 100-103), Text Formatting (Pg. 103,104), Define a Hyperlink to a Webpage (Pg. 109,110)
Classwork: Q: 5.1, 5.2 (Pg. 113-114), Q. 5.3 (1,3) (Pg. 115), Q. 5.4 (Pg. 115)
Homework: Q: 5.3 (2) (Pg. 115), Q. 5.5 (Pg. 116) Activity 5.7 (Pg. 116)
List of Practicals:
1.   Draw a flowchart that calculates the sum and product of two numbers.

2. Draw a flowchart that calculates the difference and division of two numbers.
3. Draw a flowchart that calculates the modulus of an integer with respect to another integer.
4. Draw a flowchart that calculates the area of a rectangle.
5. Draw a flowchart that calculates the area of a triangle when three side are given.
6. Draw a flowchart that calculates the volume of a cylinder.
7. Draw a flowchart that calculates the temperature from Centigrade to Fahrenheit.
8. Write a program to print the distance covered by a car having an average speed.
9. Draw a flowchart that takes a number as input and displays whether it is even or odd.
10. Draw a flowchart that takes three integers as input and displays the largest two.
11. Draw a flowchart that prints the grade of a student.
12. Draw a flowchart that prints first 10 integers using loop.
13. Draw a flowchart that prints odd numbers from 1 to 10.
14. Draw a flowchart that takes a number as an input and prints its multiplication table up to 10.
15. Draw a flowchart that takes two numbers as input and prints the multiplication table of the first number up to the second number.
16. Draw a flowchart that prints integers from 10 to 1 (reverse order using loop).
17. Draw a flowchart that takes input "n" from the user and prints the sum of first "n" numbers and their average.
18. Draw a flowchart that takes few numbers as input from the user and prints them in reverse order.
19. Draw a flowchart that takes 10 numbers as input from the user and prints all the odd ones.
20. Draw a flowchart that takes two numbers "m" and "n" as input from the user and calculates "m" to the power on "n"
21. Draw a flowchart that takes two numbers as input and calculates the GCD of the numbers using Euclidean Algorithm.
22. Creating a HTML page which has following tags:
    - html   - body
23. Create an HTML page which has following additional tags:
    - title   - paragraph   - line break
24. Create an HTM page which has following additional functions heading up to three levels:
    -bold,   -italic,   -underline
25. Create a website with two webpages linked to each other. The links are in text.
26. Create an HTML page which has a table and the border of the table is of a

specified width and border type.

27. Create a website which has multiple pages and the following components: html, body, title, paragraph, line break, bold, italic, underline

CHAPTER 1: INTRODUCTION AND ROLE OF SCIENCE

Introduction, Concept of Science in Islam, Contribution of Muslim and Pakistani Scientists, Branches of Science (from Physics to Geography) (Pg. 1-8), Role of Science and Technology in our Life (Pg. 9)

Classwork: Exercise Question No. 5, 11, 12 (Pg. 13)

Homework: Exercise Question No. 1-4, 6, 10 (Pg. 11, 13)

CHAPTER 2: OUR LIFE AND CHEMISTRY

The basic building elements for life, Carbon and its importance, Organic chemistry, Water, Air (Pg. 14-23)

Classwork: Exercise Question No. 4-6 (Pg. 28)

Homework: Exercise Question No. 1 (i-v, vii), 2 (i-iv), 3 (i) (Pg. 27, 28)

CHAPTER 3: BIOCHEMESTRY AND BIOTECHNOLOGY

Introduction, Metabolism, Enzymes, Blood and its Functions (Pg. 29-32), Antibiotics and Vaccines (Pg. 35, 36)

Classwork: Exercise Question No. 5-8, 11 (Pg. 39)

Homework: Exercise Question No. 1, 2, 3 (i,iii, iv, v), 4 (i, ii, iv) (Pg. 38, 39)

CHAPTER 4: HUMAN HEALTH

Introduction, Food and its Major Components, Food and Energy, Balanced Diet (Pg. 40-45), Exercise and Health, First Aid (Pg. 47-49)

Classwork: Exercise Question No. 5-9 (Pg. 51)

Homework: Exercise Question No. 1 (i-iv), 2 (i-iv), 3 (i-iii), 4 (i-iv) (Pg. 50, 51)

CHAPTER 5: DISEASES - CAUSE AND PREVENTION

Introduction, Diseases Caused by Germs, Agents Spreading the Germs, Protection from Germs (Pg. 52-65)

Classwork: Exercise Question No. 4-6 (Pg. 70)

Homework: Exercise Question No. 1 (i-vi), 2 (i-iv), 3 (i-v) (Pg. 69, 70)

CHAPTER 6: ENVIRONMENT AND NATURAL RESOURCES

Earth's Atmosphere, Environmental Pollution (Pg. 71-79) Dairy and Poultry Farming, Wildlife and National Parks (Pg. 83-85)

Classwork: Exercise Question No. 4-8, 11 (b, c, d) (Pg. 90)

Homework: Exercise Question No. 1 (i-v, viii, ix), 2 (i-iv), 3 (i-iii, v) (Pg. 88, 89)

اُردو

درسی کتاب کے اسباق: (مصنّفین اور شعرا کے تعارف میں سے کوئی سوال نہیں بنایا جائے گا۔)

☆ حمد (نظم):   کلاس ورک: سوال نمبر ۱، ۵، ۶، ۸، ۹، ۱۰، نظم، غزل، نظم اور غزل میں فرق

هوم ورک: سوال نمبر ۲، ۳، ۴، ۷، ۱۱

☆ نعت (نظم):   کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج)، ۲، ۴، ۸

هوم ورک: سوال نمبر ۱ (جز د، ہ)، ۳، ۵، ۶، ۷

☆ نظریہ پاکستان: کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج، د، ہ)، ۲، ۳، ۷

هوم ورک: سوال نمبر ۱ (جز و، ز، ح)، ۴، ۵، ۶

☆ مجھے میرے دوستوں سے بچاؤ: کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج)، ۵، ۶، ۷، افسانہ

هوم ورک: سوال نمبر ۱ (جز د، ہ)، ۲، ۳، ۴

☆ مُلَمّع: کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج)، ۳، ۵، ۶، ۷

هوم ورک: سوال نمبر ۱ (جز د، ہ)، ۲، ۴، ۸

☆ چغل خور: کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج)، ۲، ۶، ۷، جملہ معترضہ

هوم ورک: سوال نمبر ۱ (جز د)، ۳، ۴، ۵

☆ نام دیو مالی: کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج، د)، ۴، ۵، ۶، ۷، ذو معنی الفاظ

هوم ورک: سوال نمبر ۱ (جز ہ، و)، ۲، ۳، ۸، ۹

☆ علی بخش: کلاس ورک: سوال نمبر ۱ (جز الف، ب، ج)، ۲، ۳، ۴، ۹، ۱۰

هوم ورک: سوال نمبر ۱ (جز د، ہ)، ۵، ۶، ۷، ۸

☆ میدان کربلا میں گرمی کی شدّت: کلاس ورک: سوال نمبر ۱، ۴، ۷، ۸، ۹، استعارہ (نظم)

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ہوم ورک: سوال نمبر ۱ (جز د، ہ)، ۳، ۶، ۸

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ہوم ورک: سوال نمبر ۱ (جز د، ہ)، ۳، ۴، ۵، ۶

اُردو قواعد و انشا

(الف) مضمون نگاری (صفحہ نمبر 84 تا 100):

کلاس ورک: ☆ زم ☆ زم۔۔۔زم ☆ علامہ محمد اقبالؒ ☆ قائدِ اعظمؒ ☆ یومِ آزادی ☆ محنت کی برکتیں

ہوم ورک: ☆ ماں باپ کے ساتھ سلوک ☆ شہری اور دیہاتی زندگی ☆ وقت کی پابندی

(ب) تفہیمِ عبارات (صفحہ نمبر 117 تا 124، عبارت نمبر 1، 6، 7، 8، 9، 10، 13، 15):

کلاس ورک: ☆ پنجاب کی حد۔۔۔۔اوسان جاتے رہے۔   ☆ مختلف انسان ۔۔۔۔پھیلی ہوئی ہیں۔

☆ ہم عصروں۔۔۔۔سر باندھا ہے۔ ☆ اسلام نے۔۔۔۔نہیں ہے۔ ☆ سکون کے وقت ۔۔۔۔ہو رہا ہے۔

ہوم ورک: ☆ انتخاب کتب۔۔۔۔بلند ہوتا ہے۔ ☆ قائد اعظمؒ ہمیشہ۔۔۔۔کارنامہ ہے۔

☆ اقبالؒ کی ۔۔۔۔عطا کیا۔

UNIT # 1: HAZRAT MUHAMMAD ﷺ AN EMBODIMENT OF JUSTICE
Classwork: Glossary, Vocabulary (B, C & D), Reading Comprehension (B & C), Grammar (A, C & D), Writing Skills (B)
Homework: Vocabulary (A), Reading Comprehension (A), Grammar (B & E)
UNIT # 3: TRY AGAIN (POEM)
Classwork: Vocabulary (B), Reading Comprehension (A Qs: 1-6, B & C), Grammar (B, D & F), Writing Skills (B, C & D)
Homework: Vocabulary (A), Reading Comprehension (D), Grammar (A, C & E), Writing Skills (A)
UNIT # 4: FIRST AID
Classwork: Glossary, Vocabulary (A & C), Reading Comprehension (B), Grammar

(B, C, D & E), Writing Skills (B)

Homework: Vocabulary (B)**,** Reading Comprehension (A), Grammar (A)

<p align="center">**REVIEW-I is excluded.**</p>

UNIT # 6: TELEVISION VS. NEWSPAPERS

Classwork: Glossary, Vocabulary (B), Reading Comprehension (C), Grammar (B & C), Writing Skills (B)

Homework: Vocabulary (A), Reading Comprehension (A), Grammar (A & D)

UNIT # 8: PEACE (POEM)

Classwork: Vocabulary (C, D & E), Reading Comprehension (A & B), Grammar (B & C), Writing Skills (C & D)

Homework: Vocabulary (A & B), Grammar (A), Writing Skills (A)

<p align="center">**REVIEW-II is excluded.**</p>

UNIT # 10: A WORLD WITHOUT BOOKS

Classwork: Glossary, Vocabulary (A), Reading Comprehension (A & B), Grammar (A, C & D),

Homework: Vocabulary (B), Grammar (B & E)

UNIT # 13: FAITHFULNESS

Classwork: Glossary, Vocabulary (A, B & C), Reading Comprehension (Qs: 1-6), Grammar (A, C, D & E)

Homework: Vocabulary (D), Grammar (B & F)

<p align="center">**REVIEW-III is excluded.**</p>
<p align="center">**(Grammar & Composition)**</p>

WRITING AN ESSAY

Classwork: Sports and Games, Libraries, Health, The Moon Soon / A Rainy Day

Homework: A Hockey Match, A True Muslim, Quaid-e-Azam Muhammad Ali Jinnah

TRANSLATION OF (URDU) PARAGRAPHS INTO ENGLISH

Classwork: (2), (6), (7), (8), (9), (10), (13), (16), (19), (23)

Homework: (24), (25), (28), (29), (31), (32), (33), (34), (37) (38)

DIRECT AND INDIRECT SPEECH

Classwork: (Pages 172-177)

Homework: Practice will be given.

PAIR OF WORDS

Classwork: 1, 2, 3, 6, 8, 9, 10, 12, 13, 15, 17, 19, 20, 22, 24, 27, 28, 30, 32 & 34

Homework: 36, 38, 39, 43, 45, 49, 51, 52, 54, 56, 58, 62, 63, 65, 66, 71, 72, 75 & 78

UNIT - 1: QUADRATIC EQUATIONS
Classwork: Exercise: 1.1, Q: 1 (iii), Q: 2 (ii), Q: 3 (v, ix), Exercise: 1.2, Q: 1 (iii), Exercise: 1.3, Q: 10, 12, Exercise: 1.4, Q: 1, 9
Homework: Exercise: 1.1, Q: 1 (i, iv), Q: 2 (iv, v), Q: 3 (i, v), Exercise:1.2, Q: 1 (i, vii, viii), Exercise: 1.3, Q: 2, 7, 9, 10, 14, Exercise: 1.4, Q: 3, 8, Miscellaneous Exercise: 1, Q: 1, Q: 2

UNIT - 2: THEORY OF QUADRATIC EQUATIONS
Classwork: Exercise: 2.1, Q: 1 (ii), Q: 2 (i), Q: 3, Exercise: 2.2, Q: 2 (vi), Q: 4, Exercise: 2.3, Q: 1 (i), Q: 2 (ii), Q: 5 (ii), Exercise: 2.5, Q: 1 (f), Q: 2 (b), Q: 3 (b), Exercise: 2.6, Q: 1, 2, 5, Exercise: 2.8, Q: 4, 10
Homework: Exercise: 2.1, Q: 1 (iv), Q: 2 (iv), Q: 4 (iii), Q:10, Exercise: 2.2, Q: 2 (ii, viii), Exercise: 2.3, Q: 1 (v, vi), Q: 6 (i), Exercise: 2.5, Q: 1 (g, h), Q: 2 (d, e), Exercise: 2.7, Q: 2, 5, 10, 13, Exercise: 2.8, Q: 1, 5, 9, Miscellaneous Exercise: 2, Q: 1, Q: 2 (i-vii)

UNIT - 3: VARIATIONS
Classwork: Exercise: 3.1, Q: 4, 9, Q: 11 (iv), Exercise: 3.2, Q: 1 (iii), Q: 8, 11, Exercise: 3.3, Q: 1 (i), Q: 2 (iv, vi), Q: 3 (i), Q: 4 (iii): Exercise: 3.4, Q: 1 (i), Q: 2 (iv, vii), Exercise: 3.5, Q: 1, Exercise: 3.6, Q: 1 (iii), Q: 2 (ii), Exercise: 3.7, Q: 2
Homework: Exercise: 3.1, Q: 1 (iv, v), Q: 5, 7, Q: 11 (v), Exercise: 3.2, Q: 2 (ii), Q: 5, 10,13, Exercise: 3.3, Q: 1 (iv, vi), Q: 2 (ii, v), Q: 3 (iv), Q: 4(ii), Exercise: 3.4, Q: 1 (v,viii), Q: 2 (ii, v), Exercise: 3.5, Q: 3, 5, Exercise: 3.6, Q: 1 (ii, vi), Exercise: 3.7, Q: 3, 9, Miscellaneous Exercise: 3, Q:1, Q:2

UNIT - 4: PARTIAL FRACTIONS
Classwork: Exercise: 4.1, Q: 8, Exercise: 4.2, Q: 2, Exercise: 4.3, Q: 8, Exercise: 4.4, Q:2
Homework: Exercise: 4.1, Q: 2, 4, 7, Exercise: 4.2, Q: 1, 6, 8, Exercise: 4.3, Q: 1, 6, Exercise: 4.4, Q: 3, 6, Miscellaneous Exercise: 4, Q: 1, Q: 2 (i-v)

UNIT - 5: SETS AND FUNCTIONS
Classwork: Exercise: 5.1, Q: 1 (i), Q: 3 (i, vi), Q: 4 (i), Q: 6 (i), Exercise: 5.2, Q: 1 (v), Q: 2 (iv), Exercise: 5.3, Q: 1 (i), Q: 2 (iii), Q: 4 (iii), Exercise: 5.4, Q: 3 (iii), Exercise: 5.5, Q: 3 (i), Q: 5 (ii)
Homework: Exercise: 5.1, Q: 1 (ii, iii, iv), Q: 3 (ii, iii, iv, v), Q: 4 (iii), Q: 6 (ii), Exercise: 5.2, Q: 1 (vi-viii), Q: 3, Q: 4 (ii), Exercise: 5.3, Q: 1 (iii, v), Q: 2 (ii), Q: 4 (v), Exercise: 5.4, Q: 5 (ii), Exercise: 5.5, Q: 3 (ii, iii), Q: 5 (iii), Miscellaneous Exercise: 5, Q: 1, Q: 2

UNIT - 6: BASIC STATISTICS
Classwork: Exercise: 6.1, Q: 1, Exercise: 6.2, Q: 3, 7, Exercise: 6.3, Q: 5 (ii)
Homework: Exercise: 6.1, Q: 3, Exercise: 6.2, Q: 11, 12, Exercise: 6.3, Q: 4, Q: 7, Miscellaneous Exercise: 6, Q: 1, Q: 2

UNIT - 7: INTRODUCTION TO TRIGONOMETRY
Classwork: Exercise: 7.1, Q: 1 (vii), Q: 2 (ii), Q: 3 (v), Q: 4 (viii), Q: 5 (iii), Exercise: 7.2,

Q: 1 (ii), Exercise: 7.3, Q: 1 (ii), Q: 2 (i), Q: 3 (iv), Q: 4 (vi), Q: 9, Q: 12 (viii) Exercise: 7.4, Q: 7, 20, Exercise: 7.5, Q: 1, 9

Homework: Exercise: 7.1, Q: 1 (ii, iii), Q: 3 (ii ,vi), Q: 4 (ii, iii, v), Q: 5 (vii, viii), Exercise: 7.2, Q: 3 (i), Q: 5, 6, Exercise: 7.3, Q: 1 (iii), Q: 2 (ii), Q: 3 (iii), Q: 4 (ii), Q: 8, Q: 12 (i, v, xi) Exercise: 7.4, Q: 10, 11, 16, 24, Exercise: 7.5, Q:3, 4, 8, Miscellaneous Exercise: 7, Q:1, Q:2

UNIT - 8: PROJECTION OF A SIDE OF A TRIANGLE

Classwork: Theorem: 2, Miscellaneous Exercise: 8, Q: 3, 5, 8 (Exercises are excluded)

Homework: Theorem: 2, Miscellaneous Exercise: 8, Q: 3, 5, 8 (Exercises are excluded)

UNIT - 9: CHORDS OF A CIRCLE

Classwork: Theorem: 2, 4 (Exercises are excluded)

Homework: Theorem: 2, 4, Miscellaneous Exercise: 9, Q: 1 (v-xiv)

(Exercises are excluded)

UNIT - 10: TANGENT TO A CIRCLE

Classwork: Theorem: 1, 3 (Exercises are excluded)

Homework: Theorem: 1, 3 Miscellaneous Exercise: 10, Q:1(v-xi), (Exercises are excluded)

UNIT - 11: CHORDS AND ARCS

Classwork: Theorem: 1, 4 (Exercise is excluded)

Homework: Theorem: 1, 4, Miscellaneous Exercise: 11, Q: 1, (Exercise is excluded)

UNIT - 12: ANGLE IN A SEGMENT OF A CIRCLE

Classwork: Theorem: 1, 2 (Exercise is excluded)

Homework: Theorem: 1, 2 (Exercise is excluded)

UNIT - 13: PRACTICAL GEOMETRY-CIRCLES

Classwork: Exercise: 13.1, Q: 1, Q: 4, Exercise 13.2, Q: 4, Q: 5, Exercise: 13.3, Q: 6, 9, 11

Homework: Exercise: 13.1, Q: 1, Q: 4, Exercise 13.2, Q: 4, Q: 5, Exercise: 13.3, Q: 6, 9, 11, Miscellaneous Exercise: 13, Q: 1

MATHEMATICS (Arts Group)

UNIT - 1: ALGEBRAIC FORMULAS AND APPLICATIONS

Classwork: Exercise: 1.1, Q: 1, 8 ,11, 14, 15, 27, 32, Exercise: 1.2, Q: 1, 8, 14, 21, Exercise: 1.3, Q: 1 (ii), Q: 2 (iii), Q: 3 (iv), Q: 5

Homework: Exercise: 1.1, Q: 3, 5, 9, 16, 19, 20, 28, 31, Exercise: 1.2, Q: 3, 5, 9, 11, 16, 18, Exercise: 1.3, Q: 2 (vi), Q: 3 (ii ,vi, viii), Q: 8, 9, Review Exercise: 1, Q: I

UNIT - 2: FACTORIZATION

Classwork: Exercise: 2.1, Q: 1, 11, 16, Exercise: 2.2, Q: 2, 12, Exercise: 2.3, Q: 7, 9, 20, Exercise: 2.4, Q: 1, 15, 22, Exercise: 2.5, Q: 3, 6, 19

Homework: Exercise: 2.1, Q: 3, 6, 8, 13, Exercise: 2.2, Q: 4, 8, 11, Exercise: 2.3, Q:1, 11, 16,18, Exercise: 2.4, Q: 3, 8, 10, 13, 17, 21, Exercise: 2.5, Q: 1, 10, 12, 16, 18,

Review Exercise: 2, Q: I

UNIT - 3: ALGEBRAIC MANIPULATION
Classwork: Exercise: 3.1, Q: 1, 11, 15, Exercise: 3.2, Q: 1, 10, Exercise: 3.3, Q: 1, 9, 15, Exercise: 3.4, Q: 1, 8, 17, Exercise: 3.5, Q: 2, 12, Exercise: 3.6, Q: 4, 5, 9
Homework: Exercise: 3.1, Q: 2, 5, 7, 12, Exercise: 3.2, Q: 3, 6, 9, Exercise: 3.3, Q: 3, 7, 12, 14, Exercise: 3.4, Q: 3, 7, 9, 12, 15, Exercise: 3.5, Q: 1, 6,7, 11, Exercise: 3.6, Q: 1, 8, 12, Review Exercise: 3, Q: I

UNIT - 4: LINEAR EQUATIONS AND INEQUALITIES
Classwork: Exercise: 4.1, Q: 1 (ii), Q: 3, 10, 18, Exercise: 4.2, Q: 3, 12,16
Homework: Exercise: 4.1, Q: 1 (iii), Q: 5, 8 ,16 ,20, Exercise: 4.2, Q: 6, 9, 15, Review Exercise: 4, Q: I

UNIT - 5: QUADRATIC EQUATIONS
Classwork: Exercise: 5.1, Q: 1, 8, 15, 19, 25, Exercise: 5.2, Q: 3, 12, Exercise: 5.3, Q: 2
Homework: Exercise: 5.1, Q: 2, 9, 12, 13, 14, 18, 24, Exercise: 5.2, Q: 1, 4 ,8, 9, Exercise: 5.3, Q: 8, Review Exercise: 5, Q: I

UNIT - 6: MATRICES AND DETERMINANTS
Classwork: Exercise: 6.1,Q: 4 (A, J), Exercise: 6.2, Q: 3 (C), Q: 7 (A), Exercise: 6.3, Q: 1 (v), Q: 2 (C), Q: 3 (ii), Q: 8,10, Exercise: 6.4, Q: 2, 7, 14, 16, Exercise: 6.5, Q: 1 (ii), Q: 2 (iii), Q: 3(ii), Q: 4 (b), Exercise: 6.6, Q: 1, Q: 2 (ii), Q: 4 (ii), Q: 5 (ii)
Homework: Exercise: 6.1, Q: 4 (B-I, K, L), Exercise: 6.2, Q: 3 (D), Q:7 (B, C), Exercise: 6.3, Q: 1 (ii, vi), Q: 2 (B, E), Q: 5 (ii), Q: 6, 11, Exercise: 6.4, Q: 5, 6, 12, Exercise: 6.5, Q: 1 (iv), Q: 3 (vi, vii), Exercise: 6.6, Q: 2 (v, vi), Q: 4 (v, vi), Q: 5 (iv), Review Exercise: 6, Q: I

UNIT - 7: FUNDAMENTALS OF GEOMETRY
Classwork: Exercise: 7.1, Q: 2, Q: 7 (iii, vii), Exercise: 7.2, Q:2, Exercise: 7.3, Q: 2, 5, Exercise: 7.4, Q: 1 [a (i, iii), d], Q: 5
Homework: Exercise: 7.1, Q: 4, 5, Q: 7 (iv, ix), Exercise: 7.3, Q: 3 Review Exercise: 7, Q: I

UNIT - 8: PRACTICAL GEOMETRY
Classwork: Exercise: 8.1, Q: 1, 9, 13, 25, 28
Homework: Exercise: 8.1, Q: 3, 4, 11, 15, 17, 20, 24, 27, Review Exercise: 8, Q: I

UNIT - 9: AREA AND VOLUMES
Classwork: Exercise: 9.1, Q: 1 (i), Q: 3, 10, Exercise: 9.2, Q: 2, 14, 19, Exercise: 9.3, Q: 1, 3, 8
Homework: Exercise: 9.1, Q: 1 (iii), Q: 6, 7, Exercise: 9.2, Q: 1, 6, 12, 17, Exercise: 9.3, Q: 2, 4, 5, 6, 7, Review Exercise: 9, Q: I

UNIT - 10: INTRODUCTION TO COORDINATE GEOMETRY
Classwork: Exercise: 10.1, Q: 1 (ii, vii), Q: 2 (ii), Q: 4, 9, 11
Homework: Exercise: 10.1, Q: 1 (i, vi, x), Q: 2 (iv), Q: 6, 10, Review Exercise: 10, Q: I

الجزءالاول : من ھدی القرآن الکریم ، سورۃ الاحزاب ، سورۃ الممتحنہ

الدرس الرابع ،الف

هوم ورک : مشقی سوالات ،سوال نمبر 2 تا 3   کلاس ورک : مشقی سوالات ،سوال نمبر 1

الدرس الرابع ،ب

هوم ورک : مشقی سوالات ،سوال نمبر 2 تا 3   کلاس ورک : مشقی سوالات ،سوال نمبر 1

الدرس الرابع ،ج

هوم ورک : مشقی سوالات ،سوال نمبر 1 : جز ج   کلاس ورک : مشقی سوالات ،سوال نمبر 1 : جز الف ، ب

الدرس الخامس ،الف

هوم ورک : مشقی سوالات ،سوال نمبر 3 (مکمل)   کلاس ورک : مشقی سوالات ،سوال نمبر 1 تا 2

الدرس السابع ،الف

هوم ورک : مشقی سوالات ،سوال نمبر 3 تا4   کلاس ورک : مشقی سوالات ،سوال نمبر 1 تا 2

الجزءالثانی : من ھدی الحدیث

حدیث نمبر 11

کلاس ورک : حدیث نمبر 11 کے متن کی درست تلفظ کے ساتھ ادائیگی کرنا، ترجمہ اور تشریح کرنا

هوم ورک : ترجمہ اور تشریح نوٹ بک پرلکھنا اور یاد کرنا

حدیث نمبر 13

کلاس ورک : حدیث نمبر 13 کے متن کی درست تلفظ کے ساتھ ادائیگی کرنا، ترجمہ اور تشریح کرنا

هوم ورک : ترجمہ اور تشریح نوٹ بک پرلکھنا اور یاد کرنا

حدیث نمبر 15

کلاس ورک : حدیث نمبر 15 کے متن کی درست تلفظ کے ساتھ ادائیگی کرنا، ترجمہ اور تشریح کرنا

هوم ورک : ترجمہ اور تشریح نوٹ بک پرلکھنا اور یاد کرنا

حدیث نمبر 17

کلاس ورک : حدیث نمبر 17 کے متن کی درست تلفظ کے ساتھ ادائیگی کرنا، ترجمہ اور تشریح کرنا

هوم ورک : ترجمہ اور تشریح نوٹ بک پرلکھنا اور یاد کرنا

کلاس ورک: حدیث نمبر 20 کے متن کی درست تلفظ کے ساتھ ادائیگی کرنا، ترجمہ اور تشریح کرنا

ہوم ورک: ترجمہ اور تشریح نوٹ بک پر لکھنا اور یاد کرنا

الجزءالثالث

عائلی زندگی کی اہمیت

کلاس ورک: مشقی سوالات، سوال نمبر 1 تا 2   **ہوم ورک:** مشقی سوالات، سوال نمبر 3 تا 5

ہجرت و جہاد

کلاس ورک: مشقی سوالات، سوال نمبر 1 تا 2   **ہوم ورک:** مشقی سوالات، سوال نمبر 3 تا 5

حقوق العباد

کلاس ورک: مشقی سوالات، سوال نمبر 1 تا 2   **ہوم ورک:** مشقی سوالات، سوال نمبر 3 تا 5

مطالعہ پاکستان

باب 6: تاریخ II

(3) لیبر اصلاحات، (4) زرعی اصلاحات، 1973ء کے آئین کے اہم پہلو، 1977ء سے 1988ء کے درمیان پاکستان میں نفاذ اسلام کے اہم پہلو، پاکستان بطور ایٹمی طاقت، لوکل گورنمنٹ پلان 2000ء، انتخاب 2002ء اور بحالی جمہوریت۔

کلاس ورک: مشقی سوالات: سوال 1 جز الف (2,4,5,7)، سوال 1 جز ب (1,7,10)

ہوم ورک: مشقی سوالات: سوال 2 (4,7-1)

باب 7: پاکستان کے خارجہ تعلقات

پاکستان کی خارجہ پالیسی کے مقاصد، پاکستان کے ہمسایہ ممالک کے ساتھ تعلقات (پاک چین تعلقات، پاک بھارت تعلقات، پاک ایران تعلقات، پاک افغانستان تعلقات)، مسئلہ کشمیر کی ابتدا اور ارتقا، پاکستان کے اسلامی کانفرنس کی تنظیم کے رکن ممالک کے ساتھ تعلقات (پاکستان اور سعودی عرب، پاکستان اور ترکی)، پاک امریکہ تعلقات، وسطی ایشیائی ممالک کے ساتھ تعلقات، اقوام متحدہ، اقوام متحدہ کے ادارے، دنیا میں قیام امن کے لیے پاکستان کا کردار۔

کلاس ورک: مشقی سوالات: سوال 1 جز الف (8,10-11-1)، سوال 1 جز ب (9-1)

ہوم ورک: مشقی سوالات: سوال 3 (7,9,11,12-1)

باب 8: معاشی ترقی

معاشی ترقی کی تعریف، معیشت کے اہم شعبے، (الف) معدنیات، (ب) زراعت، پاکستان کی زرعی پیداواری صلاحیت اس کے مسائل

اور پیداوار میں اضافے کے لیے اقدامات، پاکستان کی اہم نہریں، سندھ طاس معاہدہ، زراعت میں جدّت پسندی، ہماری زراعت کو درپیش اہم مسائل ، زرعی مسائل کا حل، پاکستان کی صنعتیں، توانائی کے مختلف وسائل (بجلی، قدرتی گیس، معدنی تیل، کوئلہ)، غربت کی وجوہات اور اس کے خاتمے کے لیے اقدامات ۔

کلاس ورک: مشقی سوالات: سوال 1 جز الف (1,3,7-9)، سوال 1 جز ب (1,3,4,9)

ہوم ورک: مشقی سوالات: سوال 2 (9-4,8-1)

باب 9: آبادی معاشرہ اور پاکستان کی ثقافت

پاکستان میں افزائش آبادی اور تقسیم، شہری اور دیہی بنیاد پر آبادی کی تقسیم، صنفی لحاظ سے آبادی کی تقسیم، پاکستان میں شرح خواندگی، پاکستان میں تعلیم کی صورتِ حال، پاکستان کا تعلیمی ڈھانچہ، پاکستان کے تعلیمی مسائل، تعلیمی مسائل کے حل کے حوالے سے تجاویز، پاکستانی معاشرے اور ثقافت کی نمایاں خصوصیات، پاکستان کے اہم معاشرتی مسائل، قومی اور علاقائی، زبانیں (اردو)، علاقائی زبانیں، پاکستان میں غیر مسلم اقلیتوں کا کردار ۔

کلاس ورک: مشقی سوالات: سوال 1 جز الف (1,3,5,7)، سوال 1 جز ب (1-5,7,8)

ہوم ورک: مشقی سوالات: سوال 2 (2-4,6,8)

باب 10: تحفّظِ نسواں

صنفی حساسیت اور اس کی آ گہی (صنف کی تعریف، صنفی کردار سازی، صنفی کردار سازی کے ادارے)، اسلام اور صنف ، پنجاب حکومت کا تحفّظ نسواں ایکٹ 2016ء، تحفّظ نسواں ضلعی کمیٹی کے افعال ۔

کلاس ورک: مشقی سوالات: سوال 1 (مکمل)، سوال 2 (مکمل)

ہوم ورک: مشقی سوالات: سوال 3 (مکمل)

PHYSICS

(Note: All Conceptual questions are excluded.)

CHAPTER 10: SIMPLE HARMONIC MOTION AND WAVES

Simple Harmonic Motion (Pg. 2), Motion of Mass Attached to a Spring (Pg. 2, 3), Motion of a Simple Pendulum (Pg. 4-6), Wave Motion (Pg. 7, 8), Activity: 10.2 (Pg. 7), Types of Mechanical Waves (Pg. 8-11), Relation between Velocity, Frequency and Wavelength ($v = f \lambda$) (Pg. 11-12),

Examples: 10.1, 10.2 (Pg. 6, 12)

Exercise:

Classwork: MCQs: (i, ii, iv-vi) (Pg. 16), Review Questions: (10.1, 10.4, 10.5) (Pg. 17), Numerical Problems: (10.1-10.3) (Pg. 17, 18)

Homework: Review Questions: (10.2, 10.7) (Pg. 17), Numerical Problem: (10.4) (Pg. 18)

CHAPTER 11: SOUND WAVES

Sound Waves (Pg. 20), Sound Requires Material Medium for its Propagation (Pg. 21),

Longitudinal Nature of Sound Waves (Pg. 21, 22), Characteristics of Sound (Loudness, Pitch, Quality, Intensity) (Pg. 22-24), Sound Intensity Level (Pg. 24, 25), Speed of Sound (Pg. 27), Audible Frequency Range (Pg. 30,31), Examples: 11.1, 11.2 (Pg. 25-28)

Exercise:

Classwork: Review Questions: (11.4, 11.5, 11.7-11.11) (Pg. 34),
Numerical Problems: (11.1-11.4, 11.6) (Pg. 35)

Homework: MCQs: (i-vii) (Pg. 33), Review Questions: (11.1, 11.2) (Pg. 33, 34), Numerical Problem: (11.9) (Pg. 35)

CHAPTER 12: GEOMETRICAL OPTICS

Spherical Mirrors (Pg. 38-40), Image Location by Spherical Mirror Formula (Pg. 40, 41), Sign Conventions (Pg. 41), Refraction of Light (Pg. 42, 43), Laws of Refraction (Pg. 43), Refractive Index (Pg. 43), Total Internal Reflection (Pg. 44), Refraction through Prism (Pg. 46, 47), Lenses (Pg. 47, 48), Image Location by Lens Equation (Pg. 51, 52), Sign Conventions for Lenses (Pg. 52), Examples: 12.1-12.6 (Pg. 41, 42, 44, 52, 53)

Exercise:

Classwork: MCQs: (ix, x) (Pg. 64, 65), Review Questions: (12.6, 12.8-12.10) (Pg. 65), Numerical Problems: (12.2-12.5, 12.8-12.10) (Pg. 67)

Homework: MCQs: (i-vii) (Pg. 64), Review Questions: (12.4, 12.7, 12.12) (Pg. 65), Numerical Problem: (12.1) (Pg. 66)

CHAPTER 13: ELECTROSTATICS

Electrostatic Induction (Pg. 70, 71), Coulomb's Law (Pg. 73, 74), Electric Field and Electric Field Intensity (Pg. 74-76), Electrostatic Potential (Pg. 76, 77), Capacitors and Capacitance (Pg. 77, 78), Combination of Capacitors (Pg. 79), Capacitors in Parallel (Pg. 79, 80), Capacitors in Series (Pg. 80, 81), Uses of Capacitors (Pg. 83), Examples: 13.1-13.4 (Pg. 74, 78-82)

Exercise:

Classwork: MCQs: (i, vi-xi) (Pg. 86-88), Review Questions: (13.2, 13.8-13.11, 13.13) (Pg. 88), Numerical Problems: (13.1-13.8) (Pg. 89)

Homework: Review Questions: (13.14, 13.17) (Pg. 88), Numerical Problems: (13.9, 13.10) (Pg. 89)

CHAPTER 14: CURRENT ELECTRICITY

Electric Current (Pg. 91, 92), The Measurement of Current (Pg. 93, 94), Potential Difference (Pg. 94, 95), Electromotive Force (e.m.f) (Pg. 95, 96), The Measurements of Potential Difference and Electromotive Force (Pg. 96, 97), Ohm's Law (Pg. 97, 98), *V-I* Characteristics of Ohmic and Non-Ohmic Conductors (Pg. 98, 99), Combination of Resistors (Pg. 101), Series Combination (Pg. 101, 102), Parallel Combination (Pg. 102, 103), Electrical Energy and Joule's Law (Pg. 104, 105), Electric Power (Pg. 106), Kilowatt-Hour (Pg. 106, 107), Examples: 14.1, 14.2,

14.4, 14.5, 14.8 (Pg. 92, 98, 102-104, 107)

Exercise:

Classwork: Review Questions: (14.1, 14.6, 14.8) (Pg. 115), Numerical Problems: (14.3, 14.6) (Pg. 116)

Homework: MCQs: (i-ix) (Pg. 114, 115), Review Questions: (14.3-14.5, 14.10, 14.11) (Pg. 115), Numerical Problems (14.1, 14.2, 14.4, 14.5, 14.7) (Pg. 116)

CHAPTER 15: ELECTROMAGNETISM

Magnetic Effects of a Steady Current (Pg. 119, 120), Direction of Magnetic Field (Pg. 120), Magnetic Field of a Solenoid (Pg. 120, 121), Electromagnetic Induction (Pg. 125, 126), Direction of Induced e.m.f – Lenz's Law (Pg. 128), Mutual Induction (Pg. 130, 131), Transformer (Pg. 131, 132), Working of a Transformer (Pg. 132), Example: 15.1 (Pg. 132, 133)

Exercise:

Classwork: MCQs: (iii, iv, vii) (Pg. 136), Review Questions: (15.3, 15.7, 15.9), (Pg. 136, 137) Numerical Problems: (15.3, 15.4) (Pg. 138)

Homework: MCQs: (i, ii, viii, ix) (Pg. 135, 136), Review Questions: (15.11, 15.12) (Pg. 137), Numerical Problems: (15.1, 15.2) (Pg. 138)

CHAPTER 16: BASIC ELECTRONICS

Analogue and Digital Electronics (Pg. 143-145), Basic Operations of Digital Electronics – Logic Gates (Pg. 145, 146), AND Operation (Pg. 146,147), OR Operation (Pg. 147, 148), NOT Operation (Pg. 148, 149), NAND Gate (Pg. 149, 150), NOR Gate (Pg. 150), Uses of Logic Gates (Pg. 150), House Safety Alarm (Pg. 150, 151)

Exercise:

Classwork: Review Questions: (16.8, 16.9) (Pg. 154)

Homework: MCQs: (iii-vii) (Pg. 153), Review Questions: (16.7, 16.10) (Pg. 153, 154)

CHAPTER 17: INFORMATION AND COMMUNICATION TECHNOLOGY

Information and Communication Technology (Pg. 156), Components of Computer Based Information System (CBIS) (Pg. 156-158), Transmission of Light Signals through Optical Fibres only (Pg. 161, 162), Internet (Pg. 168, 169), Internet Services (Pg. 169), Browsers (Pg. 169), Electronic Mail (Pg. 169, 170)

Exercise:

Classwork: Review Questions: (17.2, 17.11) (Pg. 173)

Homework: MCQs: (i, iii, vi, vii) (Pg. 172, 173), Review Questions: (17.1, 17.3, 17.7) (Pg. 173)

CHAPTER 18: ATOMIC AND NUCLEAR PHYSICS

Atom and Atomic Nucleus (Pg. 175), Isotopes (Pg. 176), Natural Radioactivity (Pg. 176, 177), Background Radiations (Pg. 177), Nuclear Transmutations (Pg. 177-179), Half-Life and its Measurement (Pg. 180, 181), Radioisotopes and their Uses (Pg. 182-184), Fission Reaction (Pg. 185, 186), Nuclear Fusion (Pg. 187), Examples: 18.1, 18.2, 18.4 (Pg. 175, 176, 181, 184)

Exercise:
Classwork: MCQs: (i, ii, iv-ix) (Pg. 189, 190), Review Questions: (18.1, 18.3, 18.5-18.9, 18.12, 18.13) (Pg. 190), Numerical Problems: (18.1-18.3, 18.5, 18.7, 18.9) (Pg. 191, 192)
Homework: Review Questions: (18.2, 18.4, 18.10) (Pg. 190)
EXPERIMENTS:
1.   To verify the Laws of Refraction by using a Glass Slab.
2.   To determine the Critical Angle of Glass using a Semi Circular Slab and a Light Ray Box or by Prism.
3.   To trace the path of a ray of light through Glass Prism and measure the Angle of Deviation.
4.   To find the Focal Length of a Convex Lens by Parallax Method.
5.   Verify Ohm's Law (using Wire as Conductor).
6.   To study Resistors in Series Circuit.
7.   To study Resistors in Parallel Circuit.
8.   To find the Resistance of Galvanometer by Half Deflection Method.
9.   To verify the Truth Tables of OR, AND, NOT, NOR and NAND Gates.

CHEMISTRY

CHAPTER 9: CHEMICAL EQUILIBRIUM
Reversible Reaction and Dynamic Equilibrium, Law of Mass Action, Derivation of the Expression for Equilibrium Constant for General Reactions, Equilibrium Constant and its Units, Problems: 9.1, 9.2, 9.3 (Pg. 2-12)
Practicals:
No Practical
Questions:
Classwork: Multiple Choice Questions (1, 3, 4, 5, 9, 12, 13) (Pg. 16-17)
Homework: Short Answer Questions (2, 3, 5-9,11) (Pg. 18); Extensive Questions (3, 4) (Pg. 18); Numericals (1, 4) (Pg. 18-19)

CHAPTER 10: ACIDS, BASES AND SALTS
Concepts of Acids and Bases, General Properties and uses of Acids, General Properties and uses of Bases (Pg. 21-23, 25-30), pH Scale, Indicators, Problems: 10.2, 10.3, Salts and its Preparation only (Pg. 32-40)
Practicals:
1. Standardize the Given NaOH Solution Volumetrically.
2. Determine the Exact Molarity of a Solution of Oxalic Acid Volumetrically.
3. Demonstrate that Some Natural Substances are Weak Acids.
4. Classify Substances as Acidic, Basic or Neutral.
Questions:
Classwork: Multiple Choice Questions (1-3, 5, 7, 9, 10-13, 17-19) (Pg.46-47)

Homework: Short Answer Questions (1-9) (Pg. 48); Extensive Questions (1-5) (Pg. 49); Numericals (1, 4); (Pg. 50)

CHAPTER 11: ORGANIC CHEMISTRY

Organic Compounds, Classification of Organic Compounds (Pg. 52-57), Alkanes and Alkyl Radicals, Functional Groups (Pg. 66-71)

Practicals:

1. Identify Carboxylic Acids using Sodium Carbonate Test.
2. Identify Phenol using Ferric Chloride Test.

Questions:

Classwork: Multiple Choice Questions (10-12, 15, 22, 23) (Pg. 77-78)

Homework: Short Answer Questions (5-11) (Pg. 78);

Extensive Questions (3, 5, 7-10, 12) (Pg. 79)

CHAPTER 12: HYDROCARBONS

Hydrocarbons and its types, Alkanes, Alkenes and Alkynes (Pg. 81-93)

Practicals:

1. Identify Saturated and Unsaturated Organic Compounds by $KMnO_4$ Test.

Questions:

Classwork: Multiple Choice Questions (1, 3, 4, 6-8, 12-16) (Pg. 97-98)

Homework: Short Answer Questions (2, 4, 5, 7, 9-13, 15, 18) (Pg. 99)

Extensive Questions (1, 3, 4, 6) (Pg. 100)

CHAPTER 13: BIOCHEMISTRY

Carbohydrates and its three types, Proteins and its Building Blocks only (Amino Acids), Lipids, Fatty Acids (Excluding their Sources and Uses) (Pg. 102-106)

Practicals:

1. Demonstrate that Sugar Decomposes into Elements and other Compounds.

Questions:

Classwork: Multiple Choice Questions (1-8, 12-15) (Pg.114-115)

Homework: Short Answer Questions (1-6, 8-10, 13) (Pg.116);

Long Answer Questions (1-3, 5) (Pg. 116)

CHAPTER 14: ENVIRONMENTAL CHEMISTRY-I (THE ATMOSPHERE)

Layers of Atmosphere, Pollutants its sources and types, Oxides of Carbon (CO_2 and CO), Greenhouse Effect and Global Warming (Pg. 118-123), Acid Rain and its Effects, Ozone Depletion and its Effects (Pg. 128-130)

Practicals:

No Practical

Questions:

Classwork: Multiple Choice Questions (1, 3-8, 10, 13-16, 18) (Pg.134-135)

Homework: Short Answer Questions (3, 5, 7, 8, 10, 12) (Pg. 136);

Long Answer Questions (2, 3, 5, 8) (Pg. 136)

CHAPTER 15: ENVIRONMENTAL CHEMISTRY-II (WATER)

Water as Solvent, Soft and Hard Water, Disadvantages of Hard Water, Water Pollution, Waterborne Infectious Diseases (Pg. 139-147)

Practicals:

No Practical

Questions:

Classwork: Multiple Choice Questions (3, 8-12, 14-16) (Pg. 151-152)

Homework: Short Answer Questions (2-4, 11-14) (Pg. 152-153);

Extensive Questions (1, 3, 5, 7-9) (Pg. 153)

CHAPTER 16: CHEMICAL INDUSTRIES

Basic Metallurgical Operations, Manufacture of Sodium Carbonate by Solvay's Process (Pg. 155-162), Manufacture of Urea, Importance and Status of Urea (Pg. 164, 165)

Practicals:

No Practical

Questions:

Classwork: Multiple Choice Questions (1-9) (Pg. 174-175)

Homework: Short Answer Questions (1-9) (Pg. 175-176);

Extensive Questions (1-3, 5) (Pg. 176)

BIOLOGY

CHAPTER 10: GASEOUS EXCHANGE

Gaseous Exchange in Plants (Pg. 2, 3), Gaseous Exchange in Humans, The Air Passageway, The Mechanism of Breathing (Pg. 4-8), Respiratory Disorders (Bronchitis, Pneumonia and Asthma Only), Bad Effects of Smoking (Pg. 11-15)

Practicals:

No Practicals

Questions:

Classwork: Multiple Choice Questions (1-6, 9, 10) (Pg. 16)

Homework: Short Questions (1-3) Understanding the Concept (Qs: 1, 2, 4) (Pg. 17)

CHAPTER 11: HOMEOSTASIS

Homeostasis in Plants, Removal of Extra Carbon dioxide and Oxygen, Removal of Extra Water, Removal of Other Metabolic Wastes (Pg. 18-20), The Urinary System of Humans, Structure of Kidney, Functioning of Kidney, Osmoregulatory Function of Kidney (Pg. 22-26)

Practicals:

No Practicals

Questions:

Classwork: Multiple Choice Questions (1-9) (Pg. 29-30)

Homework: Short Question (2), Understanding the Concept (Qs: 1-5) (Pg. 30)

CHAPTER 12: COORDINATION AND CONTROL

Types of Coordination, Coordinated Action, Human Nervous System, Nerve Cell or Neuron, Divisions of the Nervous System, Brain, Spinal Cord, Peripheral Nervous System, Reflex Action (Pg. 32-41), Endocrine System, Important Endocrine Glands, Feedback Mechanisms (Pg. 47-51)

Practicals:

No Practicals

Questions:

Classwork: Multiple Choice Questions (1, 4, 6-10) (Pg. 53)

Homework: Short Questions (1-5, 8), Understanding the Concept (Qs: 1-3, 9-11) (Pg. 54)

CHAPTER 13: SUPPORT AND MOVEMENT

Human Skeleton, Role of Skeletal System, Bone and Cartilage, Components of Human Skeleton, Types of Joints, Roles of Tendons and Ligaments, Muscles and Movement (Pg. 57-64)

Practicals:

1. Investigation of the nature of bone (by putting three pieces of rib bone of lamb in water, NaOH and dilute HCl)

Questions:

Classwork: Multiple Choice Questions (1, 2, 4-10) (Pg. 66-67)

Homework: Short Questions (1, 2, 4), Understanding the Concept (Qs: 1-4) (Pg. 67)

CHAPTER 14: REPRODUCTION

Reproduction, Methods of Asexual Reproduction, Binary Fission, Fragmentation, Budding, Spore Formation, Parthenogenesis (Pg. 70-74), Artificial Vegetative Propagation (Pg. 76), Sexual Reproduction in Plants, Pollination, Germination of Seed, Sexual Reproduction in Animals (Pg. 84), Fertilization (Pg. 86), AIDS - A Sexually Transmitted Disease (Pg. 89)

Practicals:

1. Observation of binary fission of amoeba using slides, photomicrographs or charts
2. Observation of budding in yeast from prepared slides

Questions:

Classwork: Multiple Choice Questions (1, 2, 5, 6) (Pg. 91)

Homework: Short Questions (2-5), Understanding the Concept (Qs: 1, 3, 5) (Pg. 92)

CHAPTER 15: INHERITANCE

Introduction to Genetics, Chromosomes and Genes, Watson Crick Model of DNA, How does DNA of Chromosomes Work?, Genotype and its Types, Mendel's Laws of Inheritance, Mendel's Law of Segregation, Mendel's Law of Independent Assortment (Pg. 94-101)

Practicals:
No Practicals
Questions:
Classwork: Multiple Choice Questions (1-7) (Pg. 109-110)
Homework: Short Questions (1-3), Understanding the Concept (Qs:1-3) (Pg.110)

CHAPTER 16: MAN AND HIS ENVIRONMENT

Levels of Ecological Organization, Components of Ecosystem (Pg. 113, 114), Flow of Materials (Pg. 116, 117), Interactions in Ecosystems (Pg. 122, 123), Symbiosis (Parasitism, Mutualism, Commensalism) (Pg. 123-125), Conservation of Nature, Basic Information about Dengue Fever (Pg. 132-134)

Practicals:
No Practicals
Questions:
Classwork: Multiple Choice Questions (1, 4, 6, 7) (Pg. 135)
Homework: Short Questions (1, 2, 4, 5), Understanding the Concept (Qs: 1, 4) (Pg. 135, 136)

CHAPTER 17: BIOTECHNOLOGY

Introduction of Biotechnology (Pg. 135), Fermentation (Alcoholic Fermentation, Lactic Acid Fermentation), Fermentation in Biotechnology, Applications of Fermentation (Pg. 139-142), Genetic Engineering, Basic Steps in Genetic Engineering, Achievements of Genetic Engineering (Pg. 144-147)

Practicals:
No Practicals
Questions:
Classwork: Multiple Choice Questions (1-4) (Pg. 148)
Homework: Short Questions (1-3, 5), Understanding the Concept (Qs: 1, 3, 4) (Pg. 148)

CHAPTER 18: PHARMACOLOGY

Medicinal Drugs(Pg. 150-151), Addictive Drugs, Sedatives, Narcotics, Hallucinogens, Drug Addiction and Associated Problems, Antibiotics and Vaccines, Antibiotics, Antibiotic Resistance, Vaccines, Mode of Action of Vaccines (Pg. 153-156)

Practicals:
No Practicals
Questions:
Classwork: Multiple Choice Questions (1-8) (Pg. 157)
Homework: Short Questions (1, 2, 4, 5), Understanding the Concept (Qs: 1-5) (Pg. 157- 158)

UNIT 1: PROBLEM SOLVING

Problem Solving Method (List of Steps of Problem-Solving, Design Algorithm and Draw Flowchart, Write the Program (Coding), Test and Debug the Program) (Pg. 1-3), Algorithm (Pg. 4), Strategy for Developing Algorithm (Pg. 4, 5), Problem 2 (Pg. 6), Flowchart (Pg. 8, 9)

Classwork: Q: 2, 5, 7, 10 (i, v, vii, ix, x) (Pg. 10-12)

Homework: Q: 6, 8, 10 (iv, viii) (Pg. 12)

UNIT 2: DATA TYPES, ASSIGNMENT AND INPUT / OUTPUT STATEMENTS

Introduction (Pg. 13), Writing Programs in GW-BASIC (Create and Save the Program, Load the Program, Execute the Program) (Pg. 14, 15), Structure of BASIC Program (Pg. 15), Reserved Words (Pg. 17), Variables (Rules for Naming Variables in BASIC, Type Declaration Characters, Types of Variables) (Pg. 17, 18), Constants (Pg. 18, 19), BASIC Commands (AUTO, EDIT, LIST, LOAD, RUN, SAVE, SYSTEM) (Pg. 19-26), BASIC Statements (END, REM) (Pg. 27), Operators in BASIC (Pg. 28-31), BASIC Statements (READ/DATA, INPUT, PRINT (Pg. 33-37)

Classwork: Q: 2, 4, 6, 10 (ii, ix) (Pg 38-40)

Homework: Q: 5, 7, 9, 10 (vii, viii) (Pg. 39, 40)

UNIT 3: CONTROL STRUCTURES

Introduction (Pg. 41), Selection Structure (Pg. 45-48), Loops (Pg.48-50)

Classwork: Q: 2, 4, 7, 12, 14 (Pg. 51, 52)

Homework: Q: 5, 8, 10 (Pg. 52)

UNIT 4: ARRAYS

Introduction (Pg. 53), What is an Array? (Pg. 53, 54), Filling and Printing of an Array (Pg. 54, 55), Types of Array (Pg. 56), One-Dimensional Array only(Pg. 56, 57)

Classwork: Q: 2, 6, 11,18 (Pg. 59, 60)

Homework: Q: 5, 10, 9, 14, 17 (vii, viii) (Pg. 60)

UNIT 5: SUB-PROGRAM AND FILE HANDLING

Introduction (Pg. 61), Built-in-Function (ABS, INT, RND, LOG, DATE$, VAL, MID$, RIGHT$, CHR$ only) (Pg. 61-67), User-Defined Functions (Pg. 67-69)

Classwork: Q: 2, 5, 10, 11, 13 (Pg.76, 77)

Homework: Q: 4, 6, 9, 12 (Pg. 77)

UNIT 6: GRAPHICS IN BASIC

Introduction (Pg. 79), SCREEN Statement (Pg. 80, 81), PSET Statements (Pg. 83, 84), LINE, CIRCLE, DRAW Statements (Pg. 84-86)

Classwork: Q: 2, 7, 8, 10 (Pg. 87, 88)

Homework: Q: 4, 9, 11, 15 (Pg. 88)

UNIT 7: MICROSOFT WORD

Entire unit excluded.

LIST OF PRACTICALS FOR GRADE IX (OLD)

UNIT 1: DEMONSTRATION OF COMPUTER COMPONENTS

Entire Unit Excluded

UNIT 2: DOS INTERNAL COMMANDS

1.   Demonstration of DIR Command in detail including switches used with it
2.   Demonstration of CD, MD, RD, and CLS Commands
3.   Demonstration of Copy and DEL/ Erase Command
4.   Demonstration of TIME, DATE, VOL and VER Commands
5.   Demonstration of Xcopy Commands
6.   Demonstration of CHKDSK and DISKCOPY Commands
7.   Demonstration of ATTRIB Commands
8.   Demonstration of FORMAT Commands

UNIT 3: INTRODUCTION TO WINDOWS

9.   Creating New Folder
10.   How to Search for a File or Folder
11.   To Cut/Copy and Paste a File Folder from one location to another
12.   How to Use Recycle Bin
13.   To Display the My Recent Document Folder on Start Menu and Open Recently used document
14.   How to Open and Make Selections from a Menu
15.   How to Access Control Panel and Set the Time & Date
16.   How to Arrange a Remove Icons
17.   How to Add or Remove Programs and Windows Components

LIST OF PRACTICALS FOR GRADE X

UNIT 1: INTRODUCTION TO GW BASIC

1.   Write a Program to find sum and average of three numbers
2.   Write a Program to find area of a rectangle
3.   Write a Program to find area and circumference of a circle
4.   Write a Program to calculate surface area and volume of a cube
5.   Write a Program to convert temperature from Fahrenheit to Centigrade

6.   Write a Program to calculate distance covered by a car moving at an average speed of V (m/s) in time t (sec). The Program should input average speed and time.

7.   Write a Program that asks for name, roll number, class, section and marks in different subjects of a students of class 10. The program should calculate and display total obtained marks and percentage of marks.

8.   Write a Program to input a number and display whether it is even or odd

9.   Write a Program to calculate grade of a student

10.   Write a Program to write first ten natural numbers using for next loop

11.   Write a Program to sum the series 2, 4, 6..., 100

12.   Write a Program to display a table of given number up to ten values

13.   Write a Program for the use of iteration of statement, (Read 5 values from keyboard and find their mean gravity and compare the mean value against actual value 9.8 metres / $\sec^2$

14.   Write a program to find Factorial of a given number

15.   Write a program to fill an array with letters a, b, c, d

16.   Write a program to enter integer type data into an array and then to print the values in reverse order

17.   Write a program to read an array with 20 numbers and find the product of numbers in that array

18.   Write a program to find largest number out of given 10 numbers using an array

19.   Write a program to input numbers in two-dimensional array with 2 columns and 2 rows and display the result in third array by adding these array

20.   Write a program to sort the list of 20 names in descending order

21.   Write a program using subroutine named mean and call this in main function

22.   Write a program to print characters "tan" from the string "Pakistan Zindabad" using mid$ function

23.   Write a program to print first three characters from any string given by user, using left$ function

24.   Write a program to draw a line using LINE statement

CHAPTER 7: ENERGY

Introduction, Work and Energy, Different Forms of Energy (Pg. 91-94), Demand of Energy, Production of Electrical Energy, Measurement of Energy (Pg. 95-101)

Classwork: Exercise Question No. 5, 6, 8-10 (Pg. 109)

Homework: Exercise Question No. 1, 2, 3 (i-iv), 4 (i-ii, v) (Pg. 108, 109)

CHAPTER 8: CURRENT ELECTRICITY

Introduction, Electric Current (Pg. 110, 111), Potential Difference, Ohm's Law, Resistance, Components of a Circuit, Direct and Alternating Current, Uses of D.C. and A.C, Domestic Electric Supply (Pg. 112-119), Dangers of Electricity and Precautionary Measures (Pg. 120-122)

Classwork: Exercise Question No. 5-9 (Pg. 127)

Homework: Exercise Question No. 1, 2 (i-iv), 3 (ii-v), 4 (i-ix) (Pg. 126, 127)

CHAPTER 9: BASIC ELECTRONICS

Introduction, Semi-Conductors (Pg. 128-130), Radio Waves, Computer (Pg. 131-139), Information Technology (Pg. 142-146)

Classwork: Exercise Question No. 4, 6, 7, 9, 10 (Pg. 149)

Homework: Exercise Question No. 2 (i-iv), 3 (iii, iv, v) (Pg. 148, 149)

CHAPTER 10 : SCIENCE AND TECHNOLOGY

Role of Science and Technology, Lasers, Fiber Optics, Satellites and Radars (Pg. 150-154), X-Rays, Ultrasound, E.C.G. (Pg. 156-159) M.R.I., C.T. Scan, Angiography (Pg. 159, 160)

Classwork: Exercise Question No. 5-8, 11, 12 (Pg. 167)

Homework: Exercise Question No. 1 (i-iii, v), 2 (ii-iv) (Pg. 166)

CHAPTER 11: SPACE AND NUCLEAR PROGRAMME OF PAKISTAN

Importance of Space Programme, Space Programme of Pakistan, Nuclear Power Programme of Pakistan (Pg. 168-173)

Classwork: Exercise Question No. 4-7 (Pg. 175)

Homework: Exercise Question No. 1-3 (Pg. 174)