Reduced Syllabus
SSC-I and SSC-II
Examination 2021 under FBISE

National Curriculum Council
Ministry of Federal Education and
Professional Training
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CLASS</th>
<th>SUBJECT</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Urdu</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>Mathematics (Science Group)</td>
<td>4-5</td>
</tr>
<tr>
<td></td>
<td>General Mathematics</td>
<td>6-7</td>
</tr>
<tr>
<td></td>
<td>Islamiyat</td>
<td>8-9</td>
</tr>
<tr>
<td></td>
<td>Pakistan Studies</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Physics</td>
<td>11-12</td>
</tr>
<tr>
<td></td>
<td>Chemistry</td>
<td>13-14</td>
</tr>
<tr>
<td></td>
<td>Biology</td>
<td>15-16</td>
</tr>
<tr>
<td></td>
<td>Computer Science</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>General Science</td>
<td>18</td>
</tr>
<tr>
<td>10</td>
<td>Urdu</td>
<td>19-20</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>21-22</td>
</tr>
<tr>
<td></td>
<td>Mathematics (Science Group)</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>General Mathematics</td>
<td>24-25</td>
</tr>
<tr>
<td></td>
<td>Islamiyat</td>
<td>26-27</td>
</tr>
<tr>
<td></td>
<td>Pakistan Studies</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Physics</td>
<td>29-31</td>
</tr>
<tr>
<td></td>
<td>Chemistry</td>
<td>32-34</td>
</tr>
<tr>
<td></td>
<td>Biology</td>
<td>35-37</td>
</tr>
<tr>
<td></td>
<td>Computer Science</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>General Science</td>
<td>39</td>
</tr>
<tr>
<td>رقم السؤال</td>
<td>جملة السؤال</td>
<td>الإجابة</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
<td>--------</td>
</tr>
<tr>
<td>1</td>
<td>34,8</td>
<td>7,9,10</td>
</tr>
<tr>
<td>2</td>
<td>5,8,9</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>8,9,10</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>7,8,9</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>3,4,5</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>6,7,8</td>
<td>3,4,2</td>
</tr>
<tr>
<td>7</td>
<td>3,4,5</td>
<td>2,5</td>
</tr>
<tr>
<td>8</td>
<td>1,2,3</td>
<td>9,10</td>
</tr>
<tr>
<td>9</td>
<td>4,5,6</td>
<td>2,12</td>
</tr>
<tr>
<td>10</td>
<td>7,8,9</td>
<td>3</td>
</tr>
</tbody>
</table>

- قواعد ال/chatbot، يبحث عن كتاب اوردو لغة عربية
- قواعد اللغة العربية، بطاقات تعلم اللغة العربية
- مكتبة المعرفة (_subs: تعلم اللغة العربية)
<table>
<thead>
<tr>
<th>Unit #</th>
<th>Title</th>
<th>Contents /Exercises to be covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Saviour of Mankind</td>
<td>• Reading Comprehension (Exercise-B) &lt;br&gt;• Grammar (Adjective, Conditional Type-I) Exercise A, B, C &amp;D. &lt;br&gt;Homework: Vocabulary &amp; Glossary (Exercise –A &amp; B)</td>
</tr>
<tr>
<td>2</td>
<td>Patriotism</td>
<td>• Reading Comprehension (Exercise-A) &lt;br&gt;• Grammar Modal Verbs (Exercise –A &amp; B) &lt;br&gt;• Punctuation Exercise -C &lt;br&gt;Homework: Vocabulary &amp; Glossary (Exercise –A), Writing Skills (Exercise-E)</td>
</tr>
<tr>
<td>4</td>
<td>Hazrat Asma (RA)</td>
<td>• Reading Comprehension (Exercise-C) &lt;br&gt;• Grammar (Abstract Noun, Exercise-B &amp; preposition of time, Exercise-E &amp; F) &lt;br&gt;• Punctuation (Exercise –G) &lt;br&gt;Homework: Glossary</td>
</tr>
<tr>
<td>5</td>
<td>Daffodils</td>
<td>• Reading Comprehension (Exercise-A) &lt;br&gt;• Theme /Central idea of the Poem &lt;br&gt;• Figures of Speech (simile, metaphor, personification &amp; imagery) Exercise-A, B, C &lt;br&gt;• Grammar (Collective Noun, exercise-A &amp; Conjunctions, Exercise-D) &lt;br&gt;Homework: Paraphrasing of poem</td>
</tr>
<tr>
<td>6</td>
<td>The Quaid’s Vision and Pakistan</td>
<td>• Vocabulary &amp; Glossary (Exercise A, B, C, D) &lt;br&gt;• Reading Comprehension (Exercise-A) &lt;br&gt;• Grammar (Adverb, Infinitive, Gerund &amp; Conditional III) Exercises A, B, C, D &amp; E</td>
</tr>
<tr>
<td>7</td>
<td>Sultan Ahmed Mosque</td>
<td>• Vocabulary (Exercise A, B, C &amp; D) &lt;br&gt;• Reading Comprehension (Exercise-A) &lt;br&gt;• Grammar: Position of Adverbs, Degrees of Comparison (Exercise A, B &amp; C) &lt;br&gt;• Use of “Since &amp; For” (Exercise D) page-80</td>
</tr>
<tr>
<td>12</td>
<td>Three Days to See</td>
<td>• Vocabulary (Exercise A, B &amp;C) &lt;br&gt;• Reading Comprehension (Exercise-A) &lt;br&gt;• Grammar (Conditional Type-II, Kind of sentences) Exercise A, B, C &lt;br&gt;• Identification Simple, Compound &amp; Complex sentences (Exercise-D &amp; E) &lt;br&gt;• Homework: Writing Skills Exercise-A</td>
</tr>
</tbody>
</table>
GRAMMAR & COMPOSITION

i. All parts of speech (types & subtypes)
ii. Types of phrases, clauses & sentences (Identification only)
iii. Conditional Sentences
iv. Verbals (Gerund, Participles & Infinitive)
vi. Tenses, Translation Exercises, Present Tenses (page 74 to 87), Past Tenses (pages-95 to 108) Future Tenses (Pages117-131), & Correction Exercises pages # 164-168(from English Grammar and Composition, PTB, Lahore,1st Edition March, 2020)
   a. Write a letter to your brother about the importance of science subjects
   b. Write a letter to your father asking him about the health of your mother.
   c. Write a letter to your friend condoling the death of his mother.
   d. Write a letter to your sister congratulating her on her success in the exam.
viii. Punctuation exercises from English Text Book (class 9th), PTB, Lahore (Unit # 2, page-19 Exercise-(c) & Unit # 4 Page # 43 Exercise-(g).
x. Dialogue Writing (a. between teacher and student, b. between two students regarding salat, c. between a tailor and a customer) (English Grammar and Composition 9-10, PTB, Lahore,1st Edition March, 2020)

NOTE:
1. Unit No. 3, 8,9, 10 &11 are entirely excluded.
2. All Review Exercises (I, II & III) in the English Text Book are entirely excluded.
3. The overall pattern and weightage of annual paper will remain the same, however, both objective and subjective paper will be from the reduced /selected contents.
4. All grammar based content is supposed to be taken from the prescribed /recommended grammar book (English Grammar and Composition, PTB, Lahore,1st Edition March, 2020)
CHAPTER#1
EX# 1.1; Q3 EX# 1.2; Q6 (i) EX# 1.3; Q6, Q7
EX# 1.4; Q6 EX# 1.5; Q6 EX# 1.6; Q1

CHAPTER#2
EX# 2.1; Q6 EX# 2.3; Q1 (i), Q2 (i), Q3 (ii)
EX# 2.4; Q1 (i, iv), Q2, Q3 (i) EX# 2.5; Q1 (i, iv), Q2 (ii, iv), Q3 (iii, v), Q4
EX# 2.6; Q4 (iii, iv, v), Q6 (ii, iii, iv, vi), Q7

CHAPTER#3
EX# 3.2; Q4, Q5, Q6; Laws of logarithms Ex# 3.3; Q4 (i, ii)
EX# 3.4; Q1 (iii, iv, viii)

CHAPTER#4
EX# 4.1; Q4 (b), Q5(i, iii, v), Q6(ii) EX# 4.2; Q1 (i), Q4, Q6, Q8
EX# 4.3; Q1(ii), Q2(ii), Q3(iii), Q4(iii, v) EX# 4.4; Q1 (iv, vi), Q3 (iii), Q5 (i,ii)

CHAPTER#5
EX# 5.1; Q1 (i, v, vi), Q3 (ii, iv), Q4 (iv), Q5 (ii, v, vi)
EX# 5.2; Q1 (iii, v), Q2 (i, vi); Q3 (iv, v), Q4 (iii, v) Q5 (ii, iv); Q6 (i, iv)
EX# 5.3; Q1 (i, iv, v), Q4, Q5 EX# 5.4; Q2, Q8

CHAPTER#6
EX# 6.1; Q2 (ii, iii), Q3 (i, ii), Q5 (i, ii), Q7, Q8
EX# 6.2; Q1, Q5, Q9, Q11, Q13 EX# 6.3; Q1 (i, viii), Q2 (ii, v), Q4 (ii), Q5

CHAPTER#7
EX# 7.1; Q1 (i, v, vii, x), Q2 (v, vii) EX# 7.2; Q2 (v, vii, viii)
EX# 7.3; Q1 (ii, v), Q2 (ii, v, viii)

CHAPTER#8
EX# 8.1; Q3, Q4, Q5 EX# 8.3; Q1, Q4, Q5

CHAPTER#9
EX# 9.1; Q1 (a,c,e); Q2 EX# 9.2; Q1 Q3; Q6; Q9; Q10
EX# 9.3; Q1 (b, d, f), Q2, Q3, Q6

CHAPTER#10
Review EX# 10; Q2, Q3, Q4, Q5

CHAPTER#11
Review EX #11; Q3, Q4, Q5, Q6; Theorem 11.1.2

CHAPTER#12
Theorems; 12.1; 12.1.4

CHAPTER#13
Theorem #13.1.1
CHAPTER#14
Review EX#14; Q2; Q3; Q4; Q5

CHAPTER#15
Theorem 15.1.1; Q1 (i, iv); Q3; Q8; Review#15 Q1 (v, vi)

CHAPTER#16
Review EX #16; Q2

CHAPTER#17
EX# 17.1; Q1(ii, iv, vii), Q2(iii) EX# 17.2; Q1 (ii), Q2 (ii); Q3 (i), Q4 (i)

NOTE:
➢ All Class work will be given for revision as H.W.
➢ The MCQ’s Portion of the annual paper will be taken from MCQ’s exercise at the end of the chapters: so MCQ’s will be done in class by class teacher.
### GENERAL MATHEMATICS SSC-I

<table>
<thead>
<tr>
<th>UNIT-1 Percentage and Ratios</th>
<th>HOME WORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXERCISE 1.1, Q# 1 (iii, x, xii), Q2 (iv, vii), Q3 (vi, x, xii), Q4 (vi, vii, viii, xii)</td>
<td>EXERCISE 1.1, Q# 1 (iv, v, vi), Q2 (xi, xii), Q3 (I, vii, ix, xi), Q4 (i to vi)</td>
</tr>
<tr>
<td>EXERCISE 1.2, Q# 1, 9</td>
<td>EXERCISE 1.2, Q# 2, 3, 7</td>
</tr>
<tr>
<td>EXERCISE 1.3, Q# 1, 2 (viii, ix)</td>
<td>EXERCISE 1.3, Q# 2 (i to vii)</td>
</tr>
<tr>
<td>Exercise 1.4 Q1, 6</td>
<td>Exercise 1.4 Q7, 9</td>
</tr>
<tr>
<td>Exercise 1.5 Q1, 3, 11</td>
<td>Exercise 1.5 Q2, 8, 12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNIT-2 Zakat, Ushr, Inheritance</th>
<th>REVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXERCISE 2.1, Q# 1 to 12</td>
<td>Ex.2, Q# 3, 4, 5, 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNIT-3 Business Mathematics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EXERCISE 3.1, Q# 1, 7</td>
<td>EXERCISE 3.1, Q# 3, 8</td>
</tr>
<tr>
<td>EXERCISE 3.2, Q# 1, 2, 5</td>
<td>EXERCISE 3.2, Q# 6, 8</td>
</tr>
<tr>
<td>EXERCISE 3.3, Q# 1, 6</td>
<td>EXERCISE 3.3, Q# 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNIT-4 Financial Mathematics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EXERCISE 4.1, Q# 4, 5</td>
<td>EXERCISE 4.1, Q# 6</td>
</tr>
<tr>
<td>EXERCISE 4.2, Q# 1, 6, 10</td>
<td>EXERCISE 4.2, Q# 3, 14</td>
</tr>
<tr>
<td>EXERCISE 4.3, Q# 1, 3</td>
<td>EXERCISE 4.3, Q# 6, 9</td>
</tr>
<tr>
<td>EXERCISE 4.4, Q# 1, 3</td>
<td>EXERCISE 4.4, Q# 4, 5</td>
</tr>
<tr>
<td>EXERCISE 4.5, Q# 1, 3</td>
<td>EXERCISE 4.5, Q# 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNIT-5: Consumer Mathematics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EXERCISE 5.1, Q# 1, 6, 7</td>
<td>EXERCISE 5.1, Q# 2, 8</td>
</tr>
<tr>
<td>EXERCISE 5.2, Q# 1 (ii), 2 (ii)</td>
<td>EXERCISE 5.2, Q# 1 (vi), 2 (i)</td>
</tr>
<tr>
<td>EXERCISE 5.3, Q# 1, 4</td>
<td>EXERCISE 5.3, Q# 6</td>
</tr>
<tr>
<td>REVIEW Ex. 5, Q# 1, 4</td>
<td>REVIEW Ex. 5, Q# 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNIT-6: Exponents and logarithms</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EXERCISE 6.1, Q# 1 (ii), 2 (III), Q3 (ii, vi, vii), Q4 (iii, vii), Q5 (v, vii, xi)</td>
<td>EXERCISE 6.1, Q# 1 (v, vi), 2 (iv), Q3 (iii, v, vii), Q4 (I to iv), Q5 (xii, xiii)</td>
</tr>
<tr>
<td>EXERCISE 6.2, Q# 1 (v, vi), 8, 9, 11, 14, 16, 19, 25, 28 (iii, iv), 29 (vi)</td>
<td>EXERCISE 6.2, Q# 1 (i to iv), 10, 13, 15, 17, 28 (v), 29 (vii, viii)</td>
</tr>
<tr>
<td>EXERCISE 6.3, Q# 8, 5, 10, 13</td>
<td>EXERCISE 6.3, Q# 3, 4, 14</td>
</tr>
<tr>
<td>EXERCISE 6.5, Q# 1 (iii), 2 (ii, iv, v), 3(ii), 5 (i, ii, v)</td>
<td>EXERCISE 6.5 (i, ii), Q# 2 (i), 3 (iii)</td>
</tr>
<tr>
<td>EXERCISE 6.6, Q# 2(i), (iv), 4(i), (vi)</td>
<td>Q 3, 4, 14</td>
</tr>
<tr>
<td>REVIEW Ex. 6, Q# 1, 3, 4</td>
<td>EXERCISE 6.6, Q# 2 (ii), 4 (ii)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNIT-7: Arithmetic and Geometric Sequences</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise 7.1, Q# 1 (vii, ix), 3 (v, vi)</td>
<td>Exercise: 7.1, Q # 1 (iv, v, vii), 2 (ii, iii), 3 (iii, iv)</td>
</tr>
<tr>
<td>Exercise 7.2, Q# 1(i, ii, iv, v)</td>
<td>Exercise: 7.2 Q# 1 (iii), 2(ii, iii), 4</td>
</tr>
<tr>
<td>Exercise 7.3, Q # 1, 6, 8, 9</td>
<td>(Classwork is given as homework)</td>
</tr>
<tr>
<td>Exercise 7.4, Q # 1, 4, 8, 10</td>
<td>(Classwork is given as homework)</td>
</tr>
<tr>
<td>Exercise 7.5, Q # 1, 2, 6, 12</td>
<td>(Classwork is given as homework)</td>
</tr>
<tr>
<td>REVIEW Ex.7, Q# 4, 5, 6, 8</td>
<td></td>
</tr>
</tbody>
</table>

**UNIT-8: Sets and Functions**
- EXERCISE 8.1, Q# 5
- EXERCISE 8.2, Q# 4, 5
- REVIEW Ex.8, Q# 1, 4, 5, 7

**UNIT-9 : Linear Graphs**
- EXERCISE 9.1, Q# 1, 3
- EXERCISE 9.2, Q# 2, 5, 7, 8, 11
- EXERCISE 9.3, Q# 1, 3
- REVIEW Ex.8, Q# 6, 3, 4

**UNIT-10: Basic Statistics**
- EXERCISE 10.1, Q# 2
- EXERCISE 10.2, Q# 1 (ii)
- EXERCISE 10.3, Q# 1 (iv)
- EXERCISE 10.4, Q# 1 (ii)

| REVIEW Ex.1, Q# 1 to 6 | |
| Examples given on page 264, 365, 366, 273, 274, 284, will be solved by the teacher in class |

**NOTE:**
- MCQ’s portions of annual paper will be taken from objective exercises at the end of the chapter and objective questions will be done in class by the teacher.
اسلامیات (لازمی) جماعت نہم

الزمان:

من غرفہ القرآن آفرینی اقومی

آیات (148) (سالیار 178) 

سواکالانالی

المشاعل(1)

کانکور

1:1:1 104

المشاعل(ب)

کانکور

1:11:1 194

المشاعل(ج)

کانکور

1:20:1 281

المشاعل اثنی(1)

کانکور

1:29:3 372

المشاعل اثنی(ب)

کانکور

1:38:4 444

المشاعل اثنی(ج)

کانکور

1:45:3 483

جمع کرک فلاحت (با کرک) 3:21

جمع کرک فلاحت (با کرک) 4:3

جمع کرک فلاحت (با کرک) 3:3

جمع کرک فلاحت (با کرک) 3:3

جمع کرک فلاحت (با کرک) 3:3
الجزء الأول

العنوان: تحرير وتدبير

الإجابات:

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
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16. 
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93. 
94. 
95. 
96. 
97. 
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100.
PAKISTAN STUDIES SSC-I

CHAPTER 1 IDEOLOGICAL BASIS OF PAKISTAN
TOPICS: Basis of the Ideology of Pakistan, Two Nation Theory: Origins, Evolution and explication, The ideology of Pakistan and Quaid-i-Azam
CLASS WORK: Long questions: 5-6-8
HOMEWORK: Short questions: 1-2-3-4-5-7-9-13

CHAPTER 2 MAKING OF PAKISTAN
Topics: Pakistan Resolution 1940, Background of Pakistan resolution, Quaid-e-Azam presidential address, text of the resolution, reaction to the resolution, Jinnah-Gandhi talks 1944, Cabinet mission plan 1946, talks with different political leaders, proposal of cabinet mission, reaction of political parties to cabinet mission. Interim government 1946-47, 3rd June 1947 plan, Quaid-e-Azam, Role in making of Pakistan, services rendered by Quaid-e-Azam.
CLASS WORK: Long question 5-6-8-10
HOMEWORK: Short questions 3-4-5-6-9-11-12-13-15

CHAPTER 3 LAND AND ENVIRONMENT
Topics: Location of Pakistan, regions of Pakistan with reference to temperature, climatic regions of Pakistan, plain region, major environmental hazards and their remedies, environmental pollution and its types, threats to water, soil, vegetation and wildlife.
CLASS WORK: Long questions: 5-8-11-12-14-15-16
HOMEWORK: Short questions 1-2-3-5-7-11-12

CHAPTER 4 HISTORY OF PAKISTAN (Part 1)
Topics: Early problems of Pakistan, Quaid-i-Azam, role as first governor general of Pakistan, Pakistan objective resolution 1949, Muslim family laws ordinance 1961, Indo-Pak war 1965, events of war, naval war, ceasefire, effects of war, unity and solidarity among Pakistani people. Economic development: the second five years plan (1960-65), the third five years plan (1965-70). Separation of East Pakistan and emergence of Bangladesh, causes of separation of East Pakistan.
CLASS WORK: Long question: 5-6-8-10-11
HOMEWORK: Short question: 3-4-5-6-7-9-13-14-15

NOTE:
➢ All MCQs of all chapters given in exercise are included in syllabus
NOTE:
➢ All mini exercises, quick quiz and side information are excluded.

Unit 1 Physical Quantities and Measurements
1.2 physical quantities 1.3 International system of units
1.4 prefixes 1.5 Scientific Notation
1.6 Measuring Instruments (Vernier callipers, Screw gauge, Stop Watch)
1.7 Significant figures....
Example 1.4 is H.W
Exercise: Short Question: 1.2, 1.3 (H.W)
And 1.5, 1.8, 1.11 (C.W)
Problems: 1.1, 1.5, 1.8, 1.9 (H.W) and 1.10, 1.4 (H.W)
MCQ’s (1, 2, 3, 6) is (C.W)

Unit 2 Kinematics
All theory topics 2.1-2.7 and examples 2.1-2.7, 2.10 are included.
Exercise:
All MCQ’s are included.
Questions 2.3, 2.9 is (H.W)
2.5, 2.6, 2.10, 2.11 is (C.W)
Problems: 1-4, 6, 8

Unit 3 Dynamics
3.1: Force, Inertia and Momentum
3.2: Newton’s Laws of Motion (1st 2nd 3rd, mass and weight, Force and Momentum, Law of Conservation of momentum)
3.3: Friction, Rolling Friction, Advantages / disadvantages of Friction, methods to reduce friction
3.4: Centripetal and centrifugal force
Examples 3.1-3.3, 3.6, 3.7, 3.8 (H.W)
Exercise
MCQ’s 1-3, 5, 7, 8, 9 (C.W)
Short Question 3-6, 9, 10, 13, 15 (C.W)
Problems: 1-5, 8-10 (H.W)

Unit 4 Turning Effects of Forces
All Theory Topics 4.1-4.8 are included.
Examples (4.1-4.3) is (H.W)
Exercise
All MCQ’s are included.
Questions’ 4.3-4, 7, 4.10, 4.11, 4.13 (C.W)
Problems: 4.1-4.7 (H.W)

Unit 5 Gravitation
Topic 5.1: (the force of gravitation)
5.2: (mass of Earth),
5.3: (variation of g with Altitude)
Example: 5.1 and 5.2 is (H.W)
Exercise:
MCQ’s (1-4)
Short Questions: 5.2-5.4, 5-11 and 5.12
Problems: 5.1-5.5 (c.w)

Unit 6 WORK AND ENERGY
Theory Topics (6.1-6.4), 6.8- efficiency, 6.9- power
Example: (6.1-6.4) is H.W
Exercise: MCQ’S (1-5)
Short questions 6.3 and 6.4
Problems: (1-6)

Unit 7 Properties of Matter
Theory Topics:
7.2 Density,
7.3, Pressure,
7.5, Pressure in Liquid (Pascal’s Law);
Application of Pascals, Law (Hydrolic Press Only)
7.6 Archimede’s Principle,
7.7 Principle of Floatation (Ships and Submarine)
7.8 Elasticity, 7.9 Hook’s Law (Young’s Modulus)
Examples. 7.2, 7.3, 7.7 (H.W)
Exercise: MCQ’s (2, 3, 5, 6, 7)
Short Questions: 7.11, 7.15-7.22
Problems: (7.4-77), 7.11

Unit 8 Thermal Properties
8.3, Specific heat capacity, importance of large specific Heat capacity of water, heat capacity
8.8: Thermal expansion (linear and volume expansion) consequences and applications of thermal expansion)
Examples: 5,6
Exercise:
MCQ’s 4,5,6,7
Problems: 8.3-8.5
Chapter 1  Branches of Chemistry
Basic definitions, Matter, substance, Mixture(types), Elements, compound, Atomic number, Mass number, Relative mass unit, Empirical formula and Molecular formula, Types of molecular formula, Molecular mass calculation, concept of mole, Avogadro’s number, chemical calculation, mole-mass calculation (1.5), Mole-particles calculation Example (1.6,1.7)

Exercise:
MCQ: (1-10)
Short questions:  (I-VIII)
Long Questions: (3-11), 14, 15

Chapter 2  Structure of Atom
Rutherford atomic model (experiment, Defects), Bohr’s atomic theory, electronic configuration

Exercise
MCQ: (I, V, VI, VII, VIII)
Short questions: (I-V)
Long Questions: 5, 6,7,8,11,12

Chapter 3  Periodic Table and Periodicity of properties
Periods and groups of element, s and p blocks in periodic table, Periodicity of properties, Shielding effect, atomic size, Ionization energy and trends, Electron affinity, electro negativity

Exercise:
MCQ: (I, II, II, IV, V, V I, VII, VIII, IX)
Short question: (I, II, III, IV, V)
Long Questions: 3, 4,5,10

Chapter 4  Structure of molecule
Chemical Bond, Types of bond, ionic bond, covalent bond, intermolecular forces

Exercise:
MCQ: (I, II, II, IV, V, VI, VII, VIII, IX)
Short question: (II, III, IV)
Long Questions: 3, 5, 6, 7, 9, 10, 11, 12, 13

Chapter 5  Physical state of Matter
Boyle’s Law, Charles Law, Liquid state, evaporation vapor pressure and effect of external vapor pressure, boiling point, sublimation, types of solids

Exercise:
MCQ: (I, IV, VI, VII, VIII, IX, X)
Short question: (II, III, IV, VI)
Long Questions: 5, 6, and 7,8,14

Chapter 6  Solution
Saturated, Unsaturated, Super Saturated Solution, Concentration Units (Percentage, Molarity, Solubility, Effect of Temperature on Solubility, Comparison of Solution, Suspension and Colloids.

Exercise:
MCQ: (I, II, III, VI, VII, X)
Short question: (I, II, III, VI, VII, X)
Long Questions: 4, 8, 10, 12, 13
Chapter 7 Electrochemistry
Oxidation, Reduction, oxidation reduction in term of loss or gain of electrons, oxidation state and rules for assigning oxidation state and oxidation number, oxidizing and reducing agent, Electrochemical cell, nature of electrochemical process, concept of electrolyte, electrolytic cell, use of electrolytic cell, use of electrolytic cell, galvanic cell (Daniel cell), Reaction in Daniel cell, Zinc electroplating, chromium electroplating, corrosion and its prevention, rusting of iron, corrosion of Aluminum, cathode protection.

Exercise:
MCQ: (I, II, V, VI, IX)
Short question: (I, II, IV, VI)
Long Questions: 6, 13 (a,b,c), 14, 15,12(a,b,c)

Chapter 8 Chemical Reactivity
Metal, electropositive character, comparison of reactivity of Alkali and alkaline Earth metals, inertness of Noble metals, importance of silver, Gold, Platinum, Non-metals, Electro negativity character, comparison of reactivity of halogen.

Exercise:
MCQs (I-X)
Short Question/Answer (I-IV)
Long Questions: (Q 3, 4, 5, 8)
<table>
<thead>
<tr>
<th>Ch. #</th>
<th>Chapter Name</th>
<th>Topics Included</th>
<th>Review Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to Biology</td>
<td>Introduction to Biology (2-3)</td>
<td>MCQs (1-10) (Home Work)</td>
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<td>Branches of Biology</td>
<td>Short Questions (1)</td>
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<td>The Levels Of Organization (7-13)</td>
<td>Understanding the Concept (1,5,6,7)</td>
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<tr>
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<td>Solving a Biological Problem</td>
<td>Biological Method (20-23)</td>
<td>MCQs (1-9) (Home Work)</td>
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<td>Theory, Law and Principle (26-27)</td>
<td>Short Questions (1-2)</td>
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<td>Data Organization And Data Analysis (27-28)</td>
<td>Understanding the Concept (3)</td>
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<td>Biodiversity</td>
<td>Biodiversity (31)</td>
<td>MCQs (1-2,5-13) (Home Work)</td>
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<td>Importance of Biodiversity (32)</td>
<td>Short Questions (2,4)</td>
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<td>Classification- Aims and Principles (33-35)</td>
<td>Understanding the Concept (3,5,7)</td>
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<td>Taxonomic hierarchy</td>
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<td>Two kingdom classification system (36-38)</td>
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<td>Five kingdom classification system</td>
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<td>The five kingdoms</td>
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<td>Binomial Nomenclature (39-40)</td>
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<td>Deforestation and Overhunting (43-44)</td>
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<td>Endangered Species In Pakistan (45-46)</td>
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<tr>
<td>4</td>
<td>Cells and Tissues</td>
<td>Cellular Structures and Function (57-65)</td>
<td>MCQs (1.3-15) (Home Work)</td>
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<tr>
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<td>Difference Between Eukaryotic and Prokaryotic Cells (66)</td>
<td>Short Questions (2)</td>
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<td>Passage of Molecules into and Out of Cells</td>
<td>Understanding the Concept (7,11)</td>
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<td>Diffusion (69)</td>
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<td>Osmosis (70) (Water Balance Problems, Osmosis and Guard Cells, Application of</td>
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<td>Knowledge About Semi Permeable Membranes Excluded</td>
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<td>Active Transport (73)</td>
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<td>Animal Tissues (74)</td>
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<td>Epithelial Tissues (Types Excluded)</td>
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<td>Connective Tissues (75)</td>
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<td>Muscle Tissues (76-77)</td>
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<td>Nervous Tissue (77)</td>
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<td>Plant Tissues (78-82)</td>
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<td>Simple Tissues</td>
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<td>Meristematic Tissues (Types Excluded)</td>
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<td>Permanent Tissues (Names of Types Only)</td>
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<td>Compound Tissues (Names of Types Only)</td>
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<td>5</td>
<td>Cell Cycle</td>
<td>Cell Cycle (87-88)</td>
<td>MCQs (1-15) (Home Work)</td>
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<tr>
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<td></td>
<td>Mitosis and Its Phases (89-91)</td>
<td>Short Questions (1-2)</td>
</tr>
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<td>Meiosis and Its Phases (95-100)</td>
<td>Understanding the Concept (2,6)</td>
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<td>Comparison Between Mitosis and Meiosis (101)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Enzymes</td>
<td>Enzyme Introduction (107-108)</td>
<td>MCQs (1-6) (Home Work)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Characteristics of Enzymes (108-109)</td>
<td>Short Questions (1)</td>
</tr>
<tr>
<td>Topic</td>
<td>Content</td>
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<td>Factors Affecting Rate of Enzyme Action (109-111)</td>
<td>Understanding the Concept (2,7)</td>
<td></td>
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<tr>
<td>Mechanism Of Enzyme Action (111-112)</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>Bioenergetics</td>
<td>Oxidation and Reduction Reactions (118)</td>
<td></td>
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<tr>
<td>ATP- The Cell’s Energy Currency (119-120)</td>
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<tr>
<td>Photosynthesis (120)</td>
<td></td>
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<tr>
<td>Mechanism of Photosynthesis (121-122)</td>
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<tr>
<td>Respiration (130)</td>
<td></td>
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<tr>
<td>Aerobic and Anaerobic Respiration (130-131) (Importance of Fermentation excluded)</td>
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<tr>
<td>Mechanism of Respiration (132)</td>
<td></td>
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<td>MCQs (1-2,4-5,6-9) (Home Work)</td>
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<td>Short Questions (1) Understanding the Concept (2,7-8)</td>
<td></td>
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<tr>
<td>8</td>
<td>Nutrition</td>
<td>Components of Human Food (143)</td>
<td></td>
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<tr>
<td>Minerals (Table 8.2 excluded) (144)</td>
<td></td>
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<tr>
<td>Role of Calcium and Iron (145)</td>
<td></td>
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<tr>
<td>Effects of Water and Dietary Fiber (150)</td>
<td></td>
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<tr>
<td>Digestion In Humans (157-165) (Disorders Excluded)</td>
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<td>MCQs (1,2,4-11,13-15) (Home Work)</td>
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<td>Short Questions (3-5) Understanding the Concept (3,6,11)</td>
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<tr>
<td>9</td>
<td>Transport</td>
<td>Transpiration (173) (Opening and Closing of Stomata Excluded, Factors Affecting the Rate of Transpiration Excluded)</td>
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<tr>
<td>Significance of Transpiration (176)</td>
<td></td>
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<td>Transport in Human (184)</td>
<td></td>
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<tr>
<td>Blood (185-187) (Table 9.2 Excluded)</td>
<td></td>
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<tr>
<td>Human Heart (192-193)</td>
<td></td>
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<tr>
<td>Pulmonary and systemic Circulation (193)</td>
<td></td>
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<tr>
<td>Heartbeat (194-195)</td>
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<tr>
<td>Heart Rate and Pulse Rate (195-196)</td>
<td></td>
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<tr>
<td>Blood Vessels (197-198) (Table 9.1 Included)</td>
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<tr>
<td>MCQs (4-17) (Home Work)</td>
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<td>Short Questions (5,8) Understanding the Concept (4)</td>
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COMPUTER SCIENCE SSC-I

List of Topics for Theory

- Unit 01 Fundamentals of Computer Science (complete chapter)
- Unit 02 Fundamentals of Operating System (reduced)
  - 2.1 Introduction (Included)
  - 2.2 Operating System (Included)
- Unit 03 Skipped: whole chapter in theory, topic will be covered in practicals
- Unit 04 Data Communication (complete chapter)
- Unit 05 Computer Network (complete chapter)
- Unit 06 Computer Security and Ethics (complete chapter)

List of Practical(9th)

Microsoft Windows

- Creating New Folder
- How to Search for a File or Folder
- To Cut/Copy and Paste a File Folder from one location to another
- How to Use Recycle Bin
- To Display the My Recent Document Folder on Start Menu and Open Recently used document
- How to Open and Make Selections from a Menu
- How to Access Control Panel and Set the Time & Date
- How to Arrange and Remove Icons
- How to Add or Remove Programs and Windows Components
- How to adjust resolution, changing desktop background, color scheme and screen saver.

Microsoft word

- Inserting and editing Text, Selecting Text, Copying and moving Text, Deleting Text, changing Font type, Size and Changing Font Styles and Effects.
- Inserting Symbols and Equations.
- Paragraph Formatting.
- Page Formatting, inserting Section Break, Header and Footer, Inserting Page Number and Changing Page Margins.
- Inserting and Positioning Pictures.
- Inserting WordArt.
- Inserting and Formatting Table
- Using Hyperlink

Microsoft Excel

- Copying and Moving cell contents, Use of Fill-Handle to fill cells
- Cell Formatting, Working with cell addressing, Relative Cell Addressing, Absolute Cell Addressing
- Working with Functions
- Working with Formulas
- Creating Charts
- Manipulating and Formatting data
- Conditional Formatting of data
- Sorting of Data

Inpage

- Copying, Moving and Deleting Text
- Changing Language
- Formatting Document
GENERAL SCIENCE SSC-I

Chapter 1  Introduction and role of Science
➢ Brief contribution of Muslim scientists
➢ Contribution of Pakistani scientists
   1-Dr Abdus Salam  2-Dr Abdul Qadeer Khan
➢ Branches of Science
➢ Role of science and Technology
➢ Exercise questions (1,2,3,4,5,6)

Chapter 2  Our Life and Chemistry
➢ Three basic elements (Respiration, Photosynthesis)
➢ Properties of water as solvent
➢ Composition of Air, Role and Uses of air gases
➢ Importance and function of elements in daily life (Iodine, Chlorine, Iron)
➢ Exercise question no (1,2,3,4,6,7,9,10,12)

Chapter 5  Microorganism and Diseases
➢ Diseases and their causes
➢ Bacterial diseases
➢ Viral diseases
➢ Cancer, Malaria
➢ Spreading of Germs
➢ Protection of germs and diseases
➢ Smoking, Abad Habit
➢ Exercise question no (1,2,3,4,5,6,7)

Chapter 7  Energy
➢ Energy, Types of energy
➢ Inter conversion of energy
➢ Renewable energy resources
➢ Exercise questions (1,2,3,4,5,6,8,9,10,11)

Chapter 9  Basic Electronics
➢ Semiconductor
➢ Semi conductor diode
➢ Radio waves
➢ Radio
➢ Computer
➢ Micro processor
➢ Exercise questions(1,2,3,4,5,6,7,8,12,13,14,15)
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توانائے،

یہ بھی عام طور پر اورہتو اعداوات کی طرح ہوتا ہے، بطور نگاہ کیے کہ بلزا۔

مشنون نگاری(زمان،عالم اچانک،قانع آہستہ،ہم آہستہ،نجات کے سبھی،سال پچھلی کے سبھی،شرکتی اورہتو خدا نگری،وتھا کے پہچانی)

کہا ذات(ہم کہ کیا کامیابی کی نگاہ کی ب حکم،حکم کے زرود کو خطا ایجاد اتکالی کی حکم)
## ENGLISH SSC-II

<table>
<thead>
<tr>
<th>Unit #</th>
<th>Title</th>
<th>Contents /Exercises to be covered</th>
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</table>
| 1      | Hazrat Muhammad (PBUH) an Embodiment of Justice | • Glossary & Vocabulary (Ex-A&B)  
• Reading Comprehension (A &C)  
• Grammar: Concrete & Abstract Noun (Exercise A, B & C)  
Homework: Writing Skills Exercise(A&B) |
| 3      | Try Again (Poem) | • Theme of the poem  
• Stanza Comprehension  
• Reading Comprehension Exercise-A  
• Figures of Speech (Simile & Alliteration)  
• Grammar: Personal Pronoun & Degrees of Adjectives (Exercise A, B, C & D)  
Homework: Writing Skills (Exercise-A) |
| 4      | First Aid | • Glossary Exercise --A, B & C  
• Reading Comprehension Exercise-A &B  
• Grammar (Adverb, Adverb Phrase, Infinitive & gerund) Exercise --A, B, C & D  
Homework: Writing Skills “How to take care of cuts and scrap?” |
| 5      | The Rain (Poem) | • Theme  
• Stanza Comprehension  
• Figures of Speech (Metaphor & Personification)  
• Vocabulary Exercise A, B, C & D  
• Reading Comprehension Exercise-A&B  
• Grammar (Transitive & Intransitive Verbs) Exercise-A |
| 9      | Selecting the Right Career | • Glossary, Vocabulary (Exercise A, B & C)  
• Reading Comprehension (Exercise-A)  
• Grammar (Noun Clause)  
Homework: Writing Skills (Exercise-C) |
| 10     | The World without Books | • Reading Comprehension Exercise-A  
• Grammar (Relative Pronoun & Adjective Clause) Exercise (A & B)  
Homework: Glossary & Vocabulary |
| 13     | Faithfulness | • Reading Comprehension (Page -154)  
• Grammar (Conditional Sentences), Compound & Complex Sentences  
Homework: Glossary & Vocabulary |

### GRAMMAR & COMPOSITION

i. All parts of speech (types & subtypes)  
ii. Types of phrases, clauses & sentences (Identification only)  
iii. Conditional Sentences  
iv. Verbals (Gerund, Participles & Infinitive)

vi. Prepositional /Phrasal Sr#1-60 (Pages 159 – 161, English Grammar and Composition, PTB, Lahore, 1st Edition March, 2020)


viii. Application /Letter

a. Write an application to the MD of a firm for the post of Manager.

b. Write an application to the principal of your school regarding access to e-library

c. Write a letter the editor of a newspaper regarding poor sanitation.

d. Write a letter the editor of a newspaper regarding increasing rate of street crimes.

ix. Essay writing

a. My Aim in Life

b. Overpopulation

c. Patriotism

d. Beauties of Village Life

e. My Ideal Personality

f. Green and Clean Pakistan

NOTE:

1. Unit No. 2, 6, 7, 8, 11 & 12 are entirely excluded.

2. All Review Exercises (I, II & III) in the English Text Book are entirely excluded.

3. The overall pattern and weightage of annual paper will remain the same, however, both objective and subjective paper will be from the reduced /selected contents.

4. All grammar based content is supposed to be taken from the prescribed /recommended grammar book "(English Grammar and Composition, PTB, Lahore, 1st Edition March, 2020."
CHAPTER #1
Ex: 1.1 Q1 (i, iii), Q2 (i, iv, v), Q3 (i, vi, viii)  Ex: 1.2 Q1 (iv, vii)
Ex: 1.3 Q2, Q7, Q9, Q10, Q14  Ex: 1.4 Q3, Q6, Q11

CHAPTER #2
Ex: 2.1 Q1 (ii) Q2 (iv) Q3, Q5  Ex: 2.2 Q1, Q2 (iv, v, vii) Q3
Ex: 2.3 Q1 (i, ii), Q2 (i), Q3 (i), Q4 (ii), Q5 (ii)  Ex: 2.5 Q1 (e), Q2 (d), Q3 (a)
Ex: 2.6 Q1 (iii), Q2 (ii), Q3 (ii), Q5 (ii)  Ex: 2.7 Q1, Q3, Q5, Q9, Q13
Ex: 2.8 Q2, Q5, Q7, Q10

CHAPTER #3
Ex: 3.1, Q4, Q6, Q11 (iii, v)  Ex: 3.2 Q1 (iii), Q3, Q8, Q13
Ex: 3.3 Q1 (iii), Q 2 (iv), Q 3 (iv), Q4 (iii, iv)  Ex: 3.4 Q1 (i), Q2 (ii, vi, vii)
Ex: 3.5 Q2, Q6  Ex: 3.6 Q1 (ii, iii, vii), Q2 (whole)
Ex: 3.7 Q6, Q7, Q9

CHAPTER #4
Ex: 4.1 Q2, Q7  Ex: 4.2 Q2, Q4, Q8
Ex: 4.3 Q1, Q6, Q8  Ex: 4.4 Q1, Q3

CHAPTER #5
Ex: 5.1 Q4 (iii), Q5  Ex: 5.2 Q3
Ex: 5.3 Q3, Q4 (iii, i, v)  Ex: 5.4 Q1, Q3 (ii, iii)
Ex: 5.5 Q1, Q5 (iii, iv)

CHAPTER #6
Ex: 6.1, Q5  Ex: 6.2 Q3 (i), Q5, Q9, Q11
Ex: 6.3 Q4, Q5 a (ii), 5b, Q6

CHAPTER #7
Ex: 7.1 Q4 (ii, iv, vii), Q5 (iii, iv, viii)  Ex: 7.2 Q1 (ii), Q2 (i), Q3 (ii), Q12, Q13
Ex: 7.4 Q7, Q10, Q11, Q16, Q20, Q24  Ex 7.5 Q1, Q3, Q4, Q8, Q9, Q10

CHAPTER #8: Theorem 1, 2  CHAPTER #9: Theorem 4

CHAPTER #10: Theorem 3  CHAPTER #11: Theorem 4

CHAPTER #12: Theorem 1

CHAPTER #13
Ex 13.1 Q1, Q4, Ex 13.2 Q2. Q3. Q4, Ex 13.3 Q6, Q7, Q8, Q9

NOTE:
➢ All Class work will be given for revision as H.W.
➢ The MCQ’s Portion of the annual paper will be taken from MCQ’s exercise at the end of the chapters: so MCQ’s will be done in class by class teacher.
# GENERAL MATHEMATICS SSC-II

<table>
<thead>
<tr>
<th>CLASS WORK</th>
<th>HOME WORK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNIT-1 ALGEBRAIC FORMULAS AND APPLICATIONS</strong>&lt;br&gt;EXERCISE 1.1, Q# 1, 5, 9, 13, 14, 15, 19, 24.&lt;br&gt;EXERCISE 1.2, Q# 2, 3, 6, 7, 10, 12.&lt;br&gt;EXERCISE 1.3, Q# 3 (i), (v), 4, 6, 9 (ii).</td>
<td>EXERCISE 1.1, Q# 2, 8, 10, 28.&lt;br&gt;EXERCISE 1.2, Q# 1, 11, 18, 21.&lt;br&gt;EXERCISE 1.3, Q# 3 (ii), (iii), 5, 9 (i).&lt;br&gt;REVIEW Ex.1, Q# 1.</td>
</tr>
<tr>
<td><strong>UNIT-2 FACTORIZATION</strong>&lt;br&gt;EXERCISE 2.1, Q# 1, 2, 9, 15.&lt;br&gt;EXERCISE 2.2, Q# 1, 2, 8.&lt;br&gt;EXERCISE 2.3, Q# 1, 6, 11.&lt;br&gt;EXERCISE 2.4, Q# 1, 2, 9, 20.&lt;br&gt;EXERCISE 2.5, Q# 6, 10, 19, 20.</td>
<td>EXERCISE 2.1, Q# 5, 11, 16.&lt;br&gt;EXERCISE 2.2, Q# 3, 9.&lt;br&gt;EXERCISE 2.3, Q# 2, 14.&lt;br&gt;EXERCISE 2.4, Q# 6, 19.&lt;br&gt;EXERCISE 2.5, Q# 7, 18.&lt;br&gt;REVIEW Ex.1, Q# 1.</td>
</tr>
<tr>
<td><strong>UNIT-3 ALGEBRAIC MANIPULATION</strong>&lt;br&gt;EXERCISE 3.1, Q# 3, 7, 10.&lt;br&gt;EXERCISE 3.2, Q# 1, 3.&lt;br&gt;EXERCISE 3.3, Q# 1, 6, 8.&lt;br&gt;EXERCISE 3.4, Q# 1, 7, 9, 11, 13.&lt;br&gt;EXERCISE 3.5, Q# 2, 6, 8.&lt;br&gt;EXERCISE 3.6, Q# 1, 2, 6, 12.</td>
<td>EXERCISE 3.1, Q# 8, 13, 15.&lt;br&gt;EXERCISE 3.2, Q# 6, 7.&lt;br&gt;EXERCISE 3.3, Q# 2, 14.&lt;br&gt;EXERCISE 3.4, Q# 10, 12.&lt;br&gt;EXERCISE 3.5, Q# 5, 7, 12.&lt;br&gt;EXERCISE 3.6, Q# 3, 9.&lt;br&gt;REVIEW Ex.1, Q# 1.</td>
</tr>
<tr>
<td><strong>UNIT-4 LINEAR EQUATIONS AND INEQUALITIES</strong>&lt;br&gt;EXERCISE 4.1, Q# 2, 7, 10, 12, 19.&lt;br&gt;EXERCISE 4.2, Q# 1, 2, 7, 10, 15.</td>
<td>EXERCISE 4.1, Q# 3, 4, 8, 13, 20.&lt;br&gt;EXERCISE 4.2, Q# 5, 9, 16.&lt;br&gt;REVIEW Ex.1, Q# 1.</td>
</tr>
<tr>
<td><strong>UNIT-5: QUADRATIC EQUATIONS</strong>&lt;br&gt;EXERCISE 5.1, Q# 1, 3, 9, 11, 14, 18, 22.&lt;br&gt;EXERCISE 5.2, Q# 1, 2, 7, 12.&lt;br&gt;EXERCISE 5.3, Q# 1, 7.</td>
<td>EXERCISE 5.1, Q# 2, 12, 15, 19, 23.&lt;br&gt;EXERCISE 5.2, Q# 3, 9.&lt;br&gt;EXERCISE 5.3, Q# 2, 8.&lt;br&gt;REVIEW Ex.1, Q# 1.</td>
</tr>
<tr>
<td><strong>UNIT-6: MATRICES AND DETERMINANTS</strong>&lt;br&gt;EXERCISE 6.1, Q# 4.&lt;br&gt;EXERCISE 6.2, Q# 1, 2, 3, 6.&lt;br&gt;EXERCISE 6.3, Q# 1 (iv), (v), 2, 4, 11.&lt;br&gt;EXERCISE 6.4, Q# 1, 9, 12, 15.&lt;br&gt;EXERCISE 6.5, Q# 1(ii), (iii), 2(i), 3(i), (ii), 4&lt;br&gt;EXERCISE 6.6, Q# 2(i), (iv), 4(i), (vi).</td>
<td>EXERCISE 6.3, Q# 1 (vi), 6, 8.&lt;br&gt;EXERCISE 6.4, Q# 3, 7, 13.&lt;br&gt;EXERCISE 6.5, Q# 2 (ii), 3 (vi).&lt;br&gt;EXERCISE 6.6, Q# 2 (ii), 4 (ii).&lt;br&gt;REVIEW Ex.1, Q# 1.</td>
</tr>
</tbody>
</table>
| UNIT 7: FUNDAMENTALS OF GEOMETRY | Exercise 7.1, Q#2, 4, 7 (ii), (v)  
Exercise 7.2, Q# 1  
Exercise 7.3, Q# 1,2,3,4  
Exercise 7.4, Q# 1,5  
Exercise 7.5, Q# 1  
Exercise 7.6, Q# 1 | Exercise: 7.1, Q # 3, 7 (i), (vi).  
Exercise: 7.3 Q # 5.  
REVIEW Ex.1, #1. |
|---|---|---|
| UNIT 8: PRACTICAL GEOMETRY | EXERCISE 8.1, Q# 1, 2, 3, 7, 11, 23, 24, 26. | EXERCISE 8.1, Q# 8, 9, 13, 20, 25.  
REVIEW Ex.1, Q #1 |
| UNIT 9: AREAS AND VOLUMES | EXERCISE 9.1, Q# 1(i), 4, 7.  
EXERCISE 9.2, Q# 1, 2, 3, 7(i), 10 (i), 12, 16.  
EXERCISE 9.3, Q# 1, 2, 4, 5, 6. | EXERCISE 9.1, Q# 1(ii), (iii), 5, 8.  
EXERCISE 9.2, Q# 7 (ii), 10 (ii), (iii),14, 18.  
EXERCISE 9.3, Q# 3.  
REVIEW Ex.1, Q #1 |
| UNIT 10: INTRODUCTION OF COORDINATE GEOMETRY | EXERCISE 10.1, Q# 1(i), (ii), (viii), (ix), (x), 2(i), (ii), 4, 6, 7, 10, 11. | EXERCISE 10.1, Q# 2 (iii), 12.  
REVIEW Ex.1, Q# 1. |
اسلامیات لا زمی جماعت و تبیم

الجزء الاول

سورة الائتلاف

(آیات 340-352)

الدرس الراحل (ب)

کلاس: سوال مفر.
تکمیل آیات (8)
سوال 1: 2059
سوال 2: 2061
سوال 3: 2062

الدرس الراحل (ج)

کلاس: سوال مفر.
تکمیل آیات (21)
سوال 1: 2027
سوال 2: 2028
سوال 3: 2029

الدرس الراحل (پ)

کلاس: سوال مفر.
تکمیل آیات (31)
سوال 1: 2032
سوال 2: 2033
سوال 3: 2034

سورة الأحقاف (آیات 61-64)

الدرس الراحل (ت)

کلاس: سوال مفر.
تکمیل آیات (61)
سوال 1: 6167
سوال 2: 6168
سوال 3: 6169
<table>
<thead>
<tr>
<th>الرسومات</th>
<th>الكل</th>
<th>سؤال</th>
<th>أ / ب</th>
</tr>
</thead>
</table>
| طيارت | 1 | 6  
| مسيرة | 2 | 6.2  
| ماهي زعيم | 3 | 5  
| نشرت جهاد | 4 | 5  
| حقنا الحداد | 5 | 3  
| إصداء | 6 | 4.3 |
PAKISTAN STUDIES SSC-II

CHAPTER 6 HISTORY OF PAKISTAN II
TOPICS: Key aspects of the constitution of 1973, major aspects of the Islamization process during 1977-88, Pakistan as a nuclear power, the system of devolution of power initiated by Prevez Musharaf with particular emphasis on local self-government, local government plan 2000.
CLASS WORK: Long questions: 2-3-4-7
HOMEWORK: Short questions: 1-4-5-6-7-10

CHAPTER 7 FOREIGN RELATIONS OF PAKISTAN
Topics: objectives of Pakistan’s foreign policy, Pak-India relation, Pak-China relation, Pak-Afghan relation, genesis and development of Kashmir issue, Pakistan development of Kashmir issue, Pakistan relation with central Asian countries, Pakistan contribution towards peace-keeping in world
CLASS WORK: Long question 1-2-3-5-7-8-12
HOMEWORK: Short questions 1-3-4-5-6-8

CHAPTER 8 ECONOMIC DEVELOPMENT
Topics: Agriculture, main problems associated with agriculture, industries of Pakistan, different sources of energy, important sector of economy, Agriculture potential of Pakistan along with problems and measures for maximization of yield
CLASS WORK: Long questions: 1-2-3-8-9
HOMEWORK: Short questions 1-3-4-6-9

CHAPTER 9 POPULATION, SOCIETY AND CULTURE OF PAKISTAN
TOPICS: Major Features of Pakistani Society and Culture, Educational Structure of Pakistan, Major Social Problems of Pakistan, Role of minorities in Pakistan, commonality in regional cultures leading to national integration and cohesion
CLASS WORK: Long question: 1-2-5-6-7
HOMEWORK: Short question: 2-4-5-7-8

NOTE:
➢ All MCQs of all chapters given in exercise are included in syllabus
PHYSICS SSC-II

NOTE:
➢ All conceptual questions and side information are excluded.

UNIT 10 SIMPLE HARMONIC MOTION
10.1 Mass Attached with spring, Motion of simple Pendulum
10.3 Wave Motion
10.4 Types of mechanical waves
(waves as carrier of energy, Relation between velocity, frequency and wavelength)
Examples 10.1,10.2 (H.W)
Exercise: Review Question:10.1 ,10.6,10.10 (C.W)
Problems: 10.1 -10.5 (H.W)
MCQ’s (1-6)

UNIT 11 SOUND
11.1 Sound Waves
11.2 Characteristic of sound (Loudness, pitch, quality, intensity, intensity level)
11.3 Reflection of sound
11.4 Speed of sound
11.7 Audible frequency range
11.8 Ultra sound
Example 11.1,11.2 (H.W)
Exercise:
MCQ’s (1-7) are included.
Questions 11.1-11.3,11.8,11.12,11.13
Problems: 11.1-11.5 (H.W)

UNIT 12 GEOMETRICAL OPTICS
All theory topics from 12.1 -12.10
Examples 12.1-12.6 (H.W)
Exercise
MCQ’s1-6
Review Question 12.9,12.15,12.16 and 12.18
Problems: 12.1-12.4, 12.9 -12.12 (H.W)

UNIT 13 ELECTROSTATICS
13.1 Production of electric charges
13.2 Electrostatic induction
13.4 Coulomb’s Law
13.5 Electric Field and electric intensity
13.6 Electrostatic Potential
13.7 Capacitors and capacitance (combination in series and parallel)
EXAMPLES,13.1-13.4 (H.W)
Exercise
MCQ’s 1-11
Problems: 13.1- 13.10 (H.W)

UNIT 14 CURRENT ELECTRICITY
All theory topics from 14.1-14.11
Example: 14.1 -14.8 (H.W)
Exercise:
MCQ’s (1-9)
Review Questions: 14.2-14.5
Numerical problems 14.1-14.7

UNIT 15 ELECTROMAGNETISM
15.1 Magnetics effects of steady current (Direction of Magnetic field, magnetic field of solenoid)
15.5 electromagnetic induction
15.6 Direction of induce emf, Lenzs law
15.8 Mutual induction
15.9 Transformer
Exercise:
MCQs 1,2,3,7,8,9
Review questions: 15.1, 15.3, 15.7- 15.9
Problems: 15.1-15.3 (H.W)

UNIT 16 BASIC ELECTRONICS
16.1 Thermionic emission
16.2 Investigating the properties of electron
16.4 Analog and Digital electronics
16.5 Basic operation of digital electronics
16.6 -16.10 Logic gates
Exercise:
MCQs 1-7
Review Questions: 16.1, 16.7, 16.8

UNIT 18 ATOMIC AND NUCLEAR PHYSICS
18.1-18.9 (all theory topics)
Examples: 18.1-18.4 (H.W)
Exercise
MCQs 1-9
Review Questions: 18.3, 18.5, 18.6, 18.8, 18.12-18.15
Numerical problems: 18.1-18.5
PHYSICS – SSC
LIST OF PRACTICALS

SECTION-A
1. To measure the volume of a solid cylinder by measuring length and diameter of a solid cylinder with Vernier calipers.
2. To measure the thickness of a metal strip or a wire by using a screw gauge.
3. To find the acceleration of a ball rolling down an angle iron by drawing a graph between $2S$ and $T^2$.
4. Investigate the relationship between force of limiting friction and normal reaction to find the coefficient of sliding friction between a wooden block and horizontal surface.
5. To study the relationship between load and extension (Helical spring) by drawing a graph.
6. To find the density of a body heavier than water by Archimedes principle.

SECTION-B
1. To study the effect of the length of simple pendulum on its time period and hence find “$g$” by calculation.
2. To verify the laws of refraction by using a glass slab.
3. To find the refractive index of water by using concave mirror.
4. To trace the path of a ray of light through glass prism and measure the angle of deviation.
5. Verify Ohm’s law (using wire as conductor).
6. To verify the truth table of OR, AND, NOT, NOR and NAND gates.
CHEMISTRY SSC–II

Chapter 9:  Chemical Equilibrium
Reversible reaction and dynamic equilibrium, Law of mass action and its derivation, equilibrium constant and its unit, Importance of equilibrium constant
Exercise:
MCQs (I-X)
Short Question/Answer (I-V)
Long Questions: (Q 3, 4, 6, 8)

Chapter 10:  Acid, Bases, and salt
Concept of Acid and bases, Arhenius, Lowry and Bronsted-Lowery, Lewis concept of acid and bases, pH scale, Salts, Uses of salts
Exercise:
MCQs (I-X)
Short Question/Answer (II, III, IV, V)
Long Questions: (Q 3, 4, 6, 10,11,15)

Chapter 11:  Organic chemistry
Organic compound, Chemical diversity and magnitude of organic compound, general characteristic of organic compound, condensed and structural formula, saturated and unsaturated hydrocarbon, Naming alkane, sources, and uses of organic compound, alkane and alkyl radical, classification of organic compound, functional group, functional group containing C, N, H, Functional group containing double and triple bond
Exercise:
MCQs (I-X)
Short Question/Answer (I-V)
Long Questions: (Q 4, 6, 8, 9, 10, 11 (ab,c),15, 18,19)

Chapter 12:  Hydrocarbon
Hydrocarbon and its types, Alkane, preparation of alkanes, Properties of alkanes, Alkene, preparation of alkene, Properties of alkenes, Alkynes, preparation of alkynes, Properties of alkynes,
Exercise:
MCQs (I-X)
Short Question/Answer (I-V)
Long Questions: (Q 3, 4, 5, 8, 10, 13,17)

Chapter 13:  Biochemistry
Carbohydrates and its types, sources and uses of carbohydrates, nucleic acid, DNA, RNA, Vitamin and Types of Vitamin
Exercise:
MCQs (II, III, IV, VI, IX, X)
Short Questions:  (I, II, IV, VI)
Long Questions: Q3, 7, 9, 11, 15, 16

Chapter 14:  Environmental Chemistry
Layers of atmosphere, Air pollutants, Effect and sources of air pollutant, Global warming, acid rain and its effects, Ozone depletion and its effect
Exercise:
MCQs: (I-X)
Short Question-Answer: (I-V)
Long Questions: (4, 6, 7, 8, 11, 12)

Chapter 15: Environmental Chemistry II
Water
Topics: Soft and Hard water, Types of soft and hard water, Methods of removing hardness of water borne Diseases
Exercise:
MCQs (III, IV, V, VI, VII, VIII)
Q2: Short Question-Answer (I, IV, V, VI)
Long Questions: 3, 5 (a,b,c,d), 10, 11, 12, 14, 21, 25

Chapter 16: Chemical Industries
Topics: Basic metallurgical operation Solvay process (flow sheet), Urea, Importance of fractional distillation of petroleum
Exercise:
MCQs (I, III, VII, VIII, IX, X)
Q2: Short Question-Answer (II, III, IV, V)
Long Questions: 7, 8,9,10,13,15,16
CHEMISTRY – SSC
LIST OF PRACTICALS

Physical States of Matter
Determine the Melting Point of Naphthalene. Major
Determine the Boiling Point of Ethyl Alcohol. Major
Separate naphthalene from the given mixture of sand and naphthalene by sublimation. Major

Solutions
Prepare 100 cm$^3$ of 0.1M NaOH solution. Major
Prepare 250 cm$^3$ of 0.1M HCl solution. Major
Prepare 100 cm$^3$ of 0.1M NaOH solution from the given 1M solution. Major
Prepare 100 cm$^3$ of 0.01M HCl solution from the given 0.1M solution. Major
Prepare 100 cm$^3$ of 0.01M oxalic acid solution from the given 0.1M solution. Major
Prepare pure Copper Sulphate crystals from the given impure sample. Minor
Demonstrate that temperature affects solubility. Minor 7. Electrochemistry

Electrochemistry
Demonstrate the conductivity of different given solutions. Minor

Chemical Reactivity
Demonstrate that an element and a compound can react to form a different element and a different compound. Minor
Demonstrate that some chemical reactions absorb energy. Minor

Acids, Bases and Salts
Identify sodium, calcium, strontium, barium, copper, potassium radicals by flame test. Minor
Standardize the given NaOH solution volumetrically. Major
Standardize the given HCl solution volumetrically. Major
Determine the exact molarity of the Na$2$CO$3$ solution volumetrically. Major
Classify substances as acidic, basic or neutral Minor

Organic Chemistry
Identify aldehydes using Fehling’s test and Tollén’s test. Major
Identify carboxylic acids using sodium carbonate test. Major
Identify Phenol using Ferric Chloridete test. Major

Hydrocarbon
Identify saturated and unsaturated organic compounds by KMnO$4$ test. Minor

Water
Demonstrate the softening of water by removal of calcium ions from hard water. Major
<table>
<thead>
<tr>
<th>Ch. #</th>
<th>Chapter Name</th>
<th>Topics Included</th>
<th>Review Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Gaseous Exchange</td>
<td>Gaseous Exchange in Plants (page 2-3)</td>
<td>MCQs (1-7, 9-10) (Home Work)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gaseous Exchange in Humans (4-6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Lungs (6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mechanism of Breathing (7)</td>
<td>Short Questions (1-3) Understanding the concept (2)</td>
</tr>
<tr>
<td>11</td>
<td>Homeostasis</td>
<td>Osmotic Adjustment in plants (20-21)</td>
<td>MCQs (1-7, 9-10) (Home Work)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urinary System of Human</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Structure of Kidney, Functioning of Kidney, Osmoregulatory Function of the Kidney (22-26)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dialysis (27-28)</td>
<td>Short Questions (2) Understanding the concept (1, 4)</td>
</tr>
<tr>
<td>12</td>
<td>Coordination and Control</td>
<td>Types of Coordination (Coordination Action Excluded) (33)</td>
<td>MCQs (1-10) (Home Work)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Human Nervous System (34-41)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Receptors in Humans, Eye (42-43)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ear (45-46)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Endocrine System (47-51)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Support and Movement</td>
<td>Human Skeleton (57)</td>
<td>MCQs (1, 3-10) (Home Work)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bone and Cartilage (58-60)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Components of Human Skeleton (60)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Types of Joints (62-63)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Muscles and Movement (63-64)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Reproduction</td>
<td>Reproduction (70)</td>
<td>MCQs (1-10) (Home Work)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methods of Asexual Reproduction (70-75)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Binary Fission, Fragmentation, Budding, Spore Formation, Parthenogenesis,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vegetative Propagation (natural and Artificial Vegetative Propagation Excluded)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sexual reproduction in plants (78)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sexual Reproduction in Flowering Plants (78-81)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pollination and Its Types</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sexual Reproduction in Animals (84)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Formation of Gametes (84-85)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reproduction in Rabbit (87-88)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Inheritance</td>
<td>Introduction to Genetics (94)</td>
<td>MCQs (1-7) (Home Work)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromosome and Genes (94-98)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mendel’s Laws of Inheritance (90-101)</td>
<td>Short Questions (1-3) Understanding the Concept (2)</td>
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<td>16</td>
<td>Man and His Environment</td>
<td>Components of Ecosystem (114)</td>
<td>MCQs (1-2,4-5,7-8) (Home Work)</td>
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<td></td>
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<td>Biogeochemical Cycles (119-121)</td>
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<td>Interactions in Ecosystems (122-125)</td>
<td></td>
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</tbody>
</table>
| 17 | Biotechnology | Introduction to Biotechnology (138)  
|    |              | Fermentation (139-140)  
|    |              | Genetic Engineering (144-147)  
|    |              | MCQs (2-4)  
|    |              | (Home Work)  
|    |              | Short Questions (4-5)  
|    |              | Understanding the Concept (3)  
| 18 | Pharmacology | Medicinal Drugs (150-151)  
|    |              | Antibiotics and Vaccines (155-156)  
|    |              | MCQs (1-3,7-8)  
|    |              | (Home Work)  
|    |              | Short Questions (3)  
|    |              | Understanding the Concept (3,5)  

BIOLOGY – SSC
List of Practical

1. **Introduction to Biology**
   1. Study of different types of bacteria with the help of prepared slides and of *Amoeba*, *Paramecium*, *Volvox* from prepared slides/ fresh culture/charts

4. **Cells and Tissues**
   3. Examination under the microscope an animal cell (e.g. from frog’s blood) and a plant cell (e.g. from onion epidermis), using an appropriate temporary staining technique, such as iodine or methylene blue

5. **Cell Cycle**
   7. Observation of various stages of mitosis and meiosis by slides, model and charts

7. **Bioenergetics**
   10. Demonstration of the process of photosynthesis using an aquatic plant, like *Hydrilla*

8. **Nutrition**
   15. 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
   16. Microscopic examination of a transverse section of the small intestine to show the villi

9. **Transport**
   19. Investigation of the rate of water loss at the two surfaces of a leaf by a simple experiment using cobalt chloride paper
   20. Investigation of transpiration in potted plant under a bell jar
   22. Identification of red and white blood cells under the light microscope on prepared slides and in diagrams and photomicrographs
   23. Investigation of the effect of physical activity on pulse rate

10. **Gaseous Exchange**
   24. Activity to compare the breathing rate at rest and after exercise
   26. Demonstration of the presence of tar in cigarette smoke and also by charts showing pictures of lungs of smokers and nonsmokers

11. **Homeostasis**
   27. Examination of the structure of kidney (sheep kidney/model)

12. **Coordination in Man**
   28. Study of human eye, ear and brain

14. **Reproduction**
   30. Observation of binary fission of ameba using slides, photomicrographs or charts
   31. Observation of budding in yeast from prepared slides
   32. Examination of a bulb (onion), corn (*Edocasia*), rhizome (ginger) or stem tuber (potato) and its cultivation to get new plants
COMPUTER SCIENCE SSC-II

List of Topics for Theory
• Unit 01 Programming Techniques (complete chapter)
• Unit 02 Programming in C (reduced chapter)
  ➢ 2.2 Programming environment (Included)
  ➢ 2.3 Programming Basics (Included)
  ➢ 2.4 Constants and Variables (Included)
• Unit 03 Input and Output Handling (complete chapter)
• Unit 04 Conditional Control Structure (complete chapter)
• Unit 05 Loop Control Structure (complete chapter)
• Unit 06 Computer Logic and Gates (complete chapter)
• Unit 07 Skipped whole chapter in theory

List of Practicals
PROGRAMMING LANGUAGE C
• Program to find the Addition, Subtraction, Multiplication and Division of two numbers by using of printf() and scanf() Functions
• C Program to Calculate Area and Circumference of Circle
• C Program to Calculate Area of Right angle Triangle
• C Program to Calculate Area of Rectangle
• C Program to calculate sum of 5 subjects and find percentage
• C Program to compare two integers and three integers
• Use of if()- else
• C Program to find whether the number is even or odd
• C Program to find if a given number is positive or negative
• C Program to Swap Two Numbers using temporary variable (temp)
• C Program to convert temperature from degree Centigrade to Fahrenheit
• C Program to print first 10 Natural numbers using for() loop
• C Program to print first 10 Natural numbers using while() loop
• C Program to print first 10 Natural numbers using do-while() loop
• C Program to check whether the number is Prime or not
• C Program to find table of a number
• C Program to print numbers in reverse order from 1 to 10
• C Program to print even and Odd numbers from 1 to 20
• C Program to find Roots of a Quadratic Equation
• C Program to find the Grade of a student on percentage marks
• C Program to find Grade of a student using switch statement
• C Program to find the Sum of odd series from 1 to 100
• C Program to print the following number pattern Nested loop
• C Program to create a simple calculator using Switch statement
• C Program to find Factorial of a number
• C Program to find GCD of two numbers
GENERAL SCIENCE SSC-II

Chapter 3  Bio Chemistry and Bio Technology
➢ Metabolism
➢ Digestion of food (Carbohydrates, Proteins and fats)
➢ Enzymes
➢ Human Blood
➢ Chromosomes, DNA and Genes
➢ Antibiotic and Genes
➢ Exercise question no (1,2,3,5,6,7)

Chapter 4  Man and Health
➢ Major components of Food(vitamin)
➢ Balanced diet
➢ First Aid
➢ Exercise question No (1,2,3,5,6,8)

Chapter 6  Environment and Natural Resources
➢ Atmosphere
➢ Different layers of atmosphere
➢ Ozone, Green House Effect, Human activity and disturbance of climate
➢ Pollution (Air, water and Land Pollution)
➢ Effect of rising population on environment
➢ Exercise questions (1,2,3,4,5,8,9,14,15,16)

Chapter 8  Current Electricity
➢ Electric Current
➢ Voltage
➢ Resistance
➢ Ohm’s Law
➢ Electric circuit
➢ Direct current (DC) and Alternating current (AC)
➢ Exercise questions (1,2,3,4,5,6,7,8,9,10,11)

Chapter 10  Science and Technology
➢ Science and technology in the past
➢ Advancement in science and technology
➢ LASER
➢ Satellites
➢ X-Ray, Ultrasound, Electro cardiography (ECG), Magnetic Resonance Imaging (MRI)
➢ Exercise Questions (1,2,3,4,5,11,12,13,14,15,16)

Chapter 11  Pakistan’s Space and Nuclear Program
➢ Space Exploration
➢ Satellites
➢ Space Shuttle
➢ Pakistan space program
➢ Pakistan Nuclear Program (Nuclear Technology, nuclear power Generation)
➢ Exercise question no (1,2,3,4,7,8,9,10)