PECTAA
Transformation, Innovation and Excellence

Director (C & C)

PUNJAB EDUCATION, CURRICULUM, TRAINING AND ASSESSMENT AUTHORITY
21- E-II, Gulberg-III, Lahore
No: PECTAA/C&C Unit/2026/1257
Dated: 14.11.2026

NOTIFICATION

In pursuance of Section 9(1)(b) of the Punjab Education, Curriculum, Training and Assessment Authority Act-2025 and with the approval accorded by the Academics Committee of the Punjab Education, Curriculum, Training and Assessment Authority in its 13th meeting held on 05.11.2026, the Smart Syllabus (Accelerated Learning Programme – ALP / Deleted Topics and Exercise Questions), Pairing Schemes and Model Papers of Grade-10 for the Academic Session 2026-27 and BISEs Annual Examination-2027 **(Annex-A)** are hereby notified for implementation across Punjab.

No Smart Syllabus (Accelerated Learning Programme – ALP / Deleted Topics and Exercise Questions) has been notified for the subjects of Tarjama-tul-Quran and Ethics for Grade-10, as no topics or exercise questions have been deleted in these subjects.

(SAADIA SARDAR)
Director (Curriculum & Compliance)

CC:

1. PSO to the Minister, Government of the Punjab, School Education Department
2. PS to the Vice Chairperson, PECTAA / Parliamentary Secretary for School Education
3. PS to the Chairperson, Chief Minister Task Force for Examination & Assessment
4. PS to the Secretary, Government of the Punjab, School Education Department
5. PS to the Secretary, Government of the Punjab, Higher Education Department
6. PS to the Special Secretary, Government of the Punjab, SED
7. Staff Officer to the Chief Executive Officer, PECTAA
8. PS to all Managing Directors, PECTAA
9. PA to the Secretary, Punjab Boards Committee of Chairpersons (PBCC)
10. PS to the Chairperson, BISE / PBTE (Lahore, Gujranwala, Rawalpindi, Sargodha, Faisalabad, Sahiwal, Multan, Dera Ghazi Khan and Bahawalpur)
11. PA to all Directors, PECTAA
12. PS to the Programme Director, PMIU
13. PS to Managing Director, Punjab Education Foundation
14. PS to the Chief Executive Officer, Punjab Education Initiatives Management Authority
15. PS to the Managing Director, Punjab Daanish Schools & Centres of Excellence Authority
16. PS to the DPI (Colleges / Secondary Education), Punjab
17. PS to the DPI (Colleges / Secondary Education), South Punjab, Multan
18. PS to all Chief Executive Officers (Education), District Education Authorities, Punjab
19. PA to all Directors (Education), Colleges, Punjab
20. Director (IT), PECTAA for uploading the Notification and the Smart Syllabus (Accelerated Learning Programme-ALP / Deleted Topics and Exercise Questions), Pairing Schemes and Model Papers for Grade-10 on the website of PECTAA.
21. Office File

CamScanner

Smart Syllabus/Accelerated Learning Programme (ALP) Chemistry Grade-10 for Academic Session 2026-27 & BISE Exam-2027

Note: All types of questions for BISE Examination paper will be prepared from the entire content of the textbook other than those topics and questions which have been excluded / deleted in the Smart Syllabus (ALP) for Chemistry-10 (Academic Session 2026-27).

Chapter No.	Chapter Name	Deleted Topics and Exercise Questions	Page No.
14	States of Matter and Phase Changes	**14.3:** Heating and Cooling Curves **14.9:** Importance of Rates of Diffusion of Medicine in the Human Body Multiple Choice Questions (MCQs): 02 Short Answer Questions (SAQs): 14.4 Constructed Response Questions (CRQs): 14.4 Descriptive Questions (DQs): 14.3 Quick Check: Nil	(P 4-6) (P 12-13)
15	Stoichiometry	**15.6** Limiting Reactant **15.7** Yield Multiple Choice Questions (MCQs): 7 & 8 Short Answer Questions (SAQs): 15.5 Constructed Response Questions (CRQs): 15.1 & 15.3 Descriptive Questions (DQs): - Quick Check: 15.8 & 15.9 Numerical: 15.6, 15.7 & 25.8 Examples: 15.16, 15.17 & 15.18	(P 25-27) (P 27-28)

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Chapter No.	Chapter Name	Deleted Topics and Exercise Questions	Page No.
16	Electrochemistry	**16.5** Oxidation-reduction Reaction	(P 38-39)
		16.8 Electrolysis of dilute and concentrated Aqueous solution of metal halide	(P 41-43)
		16.9 Electrolysis of concentrated Aqueous solution of metal halide	(P 43-44)
		16.10 Electrolysis of Molten lead (II) Chloride.	(P 44)
		16.11 Electrolysis of dilute solution of Sulphuric Acid using inert electrodes (Carbon or Pt)	(P 44-45)
		16.12 Electrolysis of dilute Aqueous solution of Copper Sulphate using inert electrodes or Copper Electrodes	(P-45)
		16.14 Corrosion	(P 47-48)
		16.17 Order of Reactivity of metals using Voltage Data	(P 52)
		Multiple Choice Questions (MCQs): 2, 3, 4, 7 & 9	
		Short Answer Questions (SAQs): Nil	
		Constructed Response Questions (CRQs): 16.4 & 16.8	
		Descriptive Questions (DQs): 16.5 & 16.7	
		Quick Check: 16.3 & 16.6	

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Chapter No.	Chapter Name	Deleted Topics and Exercise Questions	Page No.
17	Reaction Kinetics	**17.2:** Change in mass during a chemical Reaction. **17.3:** Change in Temperature during a chemical Reaction **17.4:** Factors affecting the Rates of reaction **17.5:** Importance of chemical Kinetics in Food Industries Multiple Choice Questions (MCQs): 3 & 5 Short Answer Questions (SAQs): 17.2, 17.4, 17.5, 17.7, 17.9 & 17.10 Constructed Response Questions (CRQs): 17.2, 17.4, 17.6 & 17.7 Descriptive Questions (DQs): 17.1, 17.3, 17.4 & 17.5 Quick Check: 17.2 & 17.3	**(**P 57-58) (P 58-59) (P 59-63) (P 63-64)
18	Salts	**18.5 (b):** Reactions of acids with insoluble Base Multiple Choice Questions (MCQs): 5 Short Answer Questions (SAQs): 18.2, 18.3 & 18.4 Constructed Response Questions (CRQs): Nil Descriptive Questions (DQs): 18.4 Quick Check: 18.2 (2) Activity: 18.2 (P 72)	(P 71-72)

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Chapter No.	Chapter Name	Deleted Topics and Exercise Questions	Page No.
19`	Nitrogen and Sulphur	**19.2:** Sulphuric Acid **19.5:** Reactivity Series of Metals **19.6:** Role of oxides of nitrogen in spreading air pollutants Multiple Choice Questions (MCQs): 2, 6 & 8 Short Answer Questions (SAQs): 19.3, 19.5, 19.6 & 19.7 Constructed Response Questions (CRQs): 19.2, 19.3, 19.4 & 19.5 Descriptive Questions (DQs): 19.2 & 19.5 Quick Check: 19.2, 19.5 & 19.6	(P 76-78) (P 82) (P 82-84)
20	Water	**20.5** Treatment of domestic Water **20.7:** Water Scarcity in Pakistan **20.8:** Elements essential in Plant growth Multiple Choice Questions (MCQs): 2 Short Answer Questions (SAQs): 20.5 & 20.6 Constructed Response Questions (CRQs): 20.2 & 20.4 Descriptive Questions (DQs): 20.1 Quick Check: 20.4	(P 91-92) (P 94) (P 94-95)

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Chapter No.	Chapter Name	Deleted Topics and Exercise Questions	Page No.
21	Organic Chemistry	**21.4:** Isomerism **21.5:** Functional Groups **21.6:** (4. Alcohol), (5, Carboxylic Acid), (6 Esters) Multiple Choice Questions (MCQs): 4, 6, 7 & 8 Short Answer Questions (SAQs): 21.4, 21.5 & 21.7 Constructed Response Questions (CRQs): 21.3, 21.4 & 21.5 Descriptive Questions (DQs): 21.4 & 21.5 Quick Check: 21.4 & 21.6	(P 105) (P 106-107) (P 111-112)
22	Hydrocarbons	**22.4** Sources of Organic compounds **22.5:** Refining of Petroleum Multiple Choice Questions (MCQs): 2 ,6, & 8 Short Answer Questions (SAQs): 22.2 Constructed Response Questions (CRQs): Nil Descriptive Questions (DQs): 22.2 & 22.3 Quick Check: Nil	(P 121-122) (P 122-124)
23	Monohydroxy alkane & alcohols	**23.3** Applications of alcohols as fuels **23.4** Role of Ethanol in industries **23.5:** Impact of alcohols on daily life Multiple Choice Questions (MCQs): 4, 5, 7, 8 Short Answer Questions (SAQs): 23.1, 23.2 & 23.3 Constructed Response Questions (CRQs): Nil Descriptive Questions (DQs): 23.3 Quick Check: 23.4	(P 129-130) (P 130-131) (P 131)

PCTAA

Chapter No.	Chapter Name	Deleted Topics and Exercise Questions	Page No.
24	Carboxylic Acid	**24.4:** Industrial Applications of carboxylic Acid and esters **24.5:** Carboxylic Acid and esters in daily life Multiple Choice Questions (MCQs): 4, 5, 8 & 09 Short Answer Questions (SAQs): 24.4, 24.5, 24.6 & 24. 7 Constructed Response Questions (CRQs): 24.2, 24.3 & 24.4 Descriptive Questions (DQs): 24.2, 24.3 & 24.5 Quick Check: Nil	(P 137-138) (P 138-139)
25	Biochemistry	**25.5:** Vitamins (P 148-149) **25.7:** Applications of Biochemistry Multiple Choice Questions (MCQs): 5 & 6 Short Answer Questions (SAQs): 25.3, & 5.6 Constructed Response Questions (CRQs): 25.4 Descriptive Questions (DQs): Nil Quick Check: 25.6	(P 148-149) (P 149-151)
26	Polymers	**26.3:** Plastics (P 158) **26.4**: Importance of polymers in the textile industry **26.5:** Adverse effects of Plastics Multiple Choice Questions (MCQs): 5 & 6 Short Answer Questions (SAQs): 26.3 & 26.4 Constructed Response Questions (CRQs): 26.1 & 26.2 Descriptive Questions (DQs): 26.4 & 26.5 Quick Check: Nil	(P 158) (P 158-159) (P159-160)

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Pairing Scheme of Chemistry Grade-10 for Academic Session 2026-27 & BISE Exam-2027

Instructions for preparation of Exam Paper of Chemistry for Grade-10

The Chemistry paper for Grade-10 will consist of 60 marks. Timing of the paper will be two hours. The paper will be made as per the following details:

<table>
<tr><td>Objective:</td><td>Q-1: One multiple-choice question (MCQ) will be given from each Chapter except Chapter-25.</td><td>1 × 12 = 12</td></tr>
<tr><td rowspan="3">Subjective: Part-I</td><td>Q-2: Five (5) short answer questions have to be answered out of 08. The detail is as follows:
<table>
<tr><td>Chapter</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td></tr>
<tr><td>No. of Short Questions</td><td>2</td><td>1</td><td>1</td><td>2</td><td>2</td></tr>
</table></td><td>2 × 5 = 10</td></tr>
<tr><td>Q-3: Five (5) short answer questions have to be answered out of 08. The detail is as follows:
<table>
<tr><td>Chapter</td><td>19</td><td>20</td><td>21</td><td>22</td></tr>
<tr><td>No. of Short Questions</td><td>2</td><td>2</td><td>2</td><td>2</td></tr>
</table></td><td>2 × 5 = 10</td></tr>
<tr><td>Q-4: Five (5) short answer questions have to be answered out of 8. The details are as follows:
<table>
<tr><td>Chapter</td><td>23</td><td>24</td><td>25</td><td>26</td></tr>
<tr><td>No. of Short Questions</td><td>2</td><td>2</td><td>2</td><td>2</td></tr>
</table></td><td>2 × 5 = 10</td></tr>
<tr><td>Subjective: Part-II:</td><td>This section will contain three (3) detailed questions bifurcated in two-part a & b (carrying 5 & 4 marks each) and students have to attempt 2 questions The detail is as follows:
<table>
<tr><td>Q-5:</td><td>Chapter</td><td>14</td><td>15</td></tr>
<tr><td></td><td>Part</td><td>a</td><td>b</td></tr>
<tr><td>Q-6:</td><td>Chapter</td><td>20</td><td>22</td></tr>
<tr><td></td><td>Part</td><td>a</td><td>b</td></tr>
<tr><td>Q-7:</td><td>Chapter</td><td>23</td><td>25</td></tr>
<tr><td></td><td>Part</td><td>a</td><td>b</td></tr>
</table>
Note: This pairing scheme is the same as given in Chemistry-10 Textbook.</td><td>9 × 2 = 18</td></tr>
</table>

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MODEL PAPER OF CHEMISTRY FOR GRADE-10

Objective Type

Max. Marks: 12 **Time allowed: 15 Min.**

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle with marker or pen ink in the answer-book. Cutting or filling two or more circles will result in zero marks for that question.

Q.1. Select the correct answer. **(1 × 12 = 12)**

(i) Which of the following statements correctly describe evaporation?

(i) درج ذیل میں سے کون سا بیان ایویپوریشن کو درست بیان کرتا ہے؟

(a) Evaporation occurs throughout the liquid
ایویپوریشن مائع کی پوری مقدار میں ہوتی ہے۔

(b) Evaporation occurs at a specific temperature.
ایویپوریشن ایک مخصوص درجہ حرارت پر ہوتی ہے۔

(c) Evaporation produces cooling.
ایویپوریشن سے ٹھنڈک پیدا ہوتی ہے۔

(d) Evaporation does not require an external energy source.
ایویپوریشن کے لیے بیرونی توانائی کے ذریعے کی ضرورت ہوتی ہے۔

(ii) Which of the following pairs of compounds have the SAME empirical formula?

(ii) درج ذیل میں سے مرکبات کے کس جوڑے کا تجرباتی فارمولا ایک جیسا ہے؟

(a) Water (H_2O) and Hydrogen peroxide (H_2O_2)
پانی (H_2O) اور ہائیڈروجن پر آکسائیڈ (H_2O_2)

(b) Acetylene (C_2H_2) and Benzene (C_6H_6)
ایسیٹیلین (C_2H_2) اور بینزین (C_6H_6)

(c) Glucose ($C_6H_{12}O_6$) and Water (H_2O)
گلوکوز ($C_6H_{12}O_6$) اور پانی (H_2O)

(d) Benzene (C_6H_6) and Glucose ($C_6H_{12}O_6$)
بینزین (C_6H_6) اور گلوکوز ($C_6H_{12}O_6$)

(iii) Which product will be obtained at the anode when a concentrated solution of NaCl will be electrolyzed?

(iii) جب سوڈیم کلورائڈ کے مرتکز سلوشن کو الیکٹرولائٹز کیا جاتا ہے تو اینوڈ پر کون سا پروڈکٹ حاصل ہوتا ہے؟

(a) Cl

(b) O_2

(c) More O_2 and less Cl_2

(d) more Cl_2 and less O_2

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(iv) Ionic compounds conduct electricity when they are:

(iv) آئنک مرکبات بجلی کب گزارتے ہیں

(a) In solid state only
صرف ٹھوس حالت میں

(b) In molten state or dissolved in water
پگھلی ہوئی حالت میں یا پانی میں حل ہونے پر

(c) In solid state and molten state
ٹھوس اور پگھلی ہوئی دونوں حالتوں میں

(d) Never conduct electricity
کسی حالت میں نہیں

(v) Ammonia is mainly used for the production of:

(v) امونیا بنیادی طور پر کس چیز کی تیاری کے لیے استعمال ہوتی ہے؟

(a) Plastics only
صرف پلاسٹک

(b) Fertilizers like urea
یوریا جیسی کھادیں

(c) Petrol and diesel
پیٹرول اور ڈیزل

(d) Soap only
صرف صابن

(vi) The pH of distilled water is:

(vi) ڈسٹلڈ واٹر کی pH ہے:

(a) 6.5
(b) 8.5
(c) 7
(d) 7.5

(vii) Select the general formula of alkene family.

(vii) الکین فیملی کا جنرل فارمولا بتائیں:

(a) C_nH_{2n+1}
(b) C_nH_{2n}
(c) C_nH_{2n-1}
(d) C_nH_{2n-2}

(viii) Which of the following is expected to give addition reactions?

(viii) درج ذیل میں سے کون ایڈیشن ری ایکشن دے گا؟

(a) CH_3-CH_3
(b) CH_2=CH_2
(c) CH_4
(d) CH_3-CH_2-CH_3

(ix) Which element is reduced, during the oxidation of ethanol by acidified $KMNO_4$?

(ix) تیزابی $KMNO_4$ کے ذریعے ایتھانول کی آکسیڈیشن کے دوران کون سا عنصر ریڈیوس ہوتا ہے؟

(a) K
(b) O
(c) Mn
(d) H

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(x) According to collision theory, which of the following will increase the rate of a chemical reaction?

(x) کولیژن تھیوری کے مطابق درج ذیل میں سے کون سا عمل کیمیائی تعامل کی رفتار میں اضافہ کرے گا؟

(a) Decreasing the concentration
ری ایکٹنٹس کی کنسنٹریشن کم کرنا

(b) Decreasing the temperature,
درجہ حرارت کم کرنا

(c) Increasing the number of particles per unit volume,
فی یونٹ والیم ذرات کی تعداد بڑھانا

(d) Increasing the number of collisions
کولیژن کی تعداد بڑھانا

(xi) Which catalyst other than H_3PO_4 can also be used for hydration of alkenes?

(xi) H_3PO_4 کے علاوہ کون سا کیٹالسٹ الکینز کی ہائڈریشن کے لیے استعمال کیا جا سکتا ہے؟

(a) NaOH
(b) H_2SO_4
(c) CH_3COOH
(d) Ni

(xii) Which of the following statements about DNA?

(xii) ڈی این اے کے بارے میں درج ذیل میں سے کون سا بیان درست ہے؟

(a) DNA is found mostly outside the nucleus,
ڈی این اے زیادہ تر مرکزے کے باہر پایا جاتا ہے۔

(b) The function of DNA is to store information and pass it to RNA
ڈی این اے کا کام معلومات محفوظ کرنا اور انہیں آر این اے تک منتقل کرنا ہے۔

(c) RNA molecules are much larger than DNA molecules
آر این اے کے سالمات، ڈی این اے کے سالمات سے بہت زیادہ بڑے ہوتے ہیں۔

(d) DNA is responsible for making proteins directly without the help of RNA
ڈی این اے، آر این اے کی مدد کے بغیر براہِ راست پروٹین بنانے کا ذمہ دار ہوتا ہے۔

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Subjective Type (Part I)

Time allowed: 1:45 Hrs. **Max. Marks: 30**

Q. 2: Write short answers to any five (05) questions: **(2 × 5 = 10)**

(i) Why does the temperature of a solid not increase while it is melting, even though heat is being supplied?

حرارت فراہم کرنے کے باوجود پگھلنے کے دوران ٹھوس مادے کا درجہ حرارت کیوں نہیں بڑھتا؟

(ii) Why ice melts when the pressure is exerted on it?

جب برف پر دباؤ بڑھایا جاتا ہے تو وہ پگھلتی کیوں ہے؟

(iii) What is molar volume? What is its value at RTP?

مولر والیوم کسے کہتے ہیں؟ کمرۂ درجہ حرارت اور دباؤ (RTP) پر اس کی قیمت کیا ہوتی ہے؟

(iv) What are the main objectives of electroplating?

الیکٹرو پلیٹنگ کے اہم مقاصد کیا ہیں

(v) What is a successful collision?

کامیاب کولیژن کسے کہتے ہیں؟

(vi) What are effective collisions? On what factors does the rate of a reaction depend?

مؤثر تصادمات کسے کہتے ہیں؟ کسی تعامل کی رفتار کن عوامل پر منحصر ہوتی ہے؟

(vii) Name two insoluble carbonates.

دو ناحل پذیر سالٹس کے نام لکھیں۔

(viii) What is the arrangement of ions in the crystal lattice of NaCl.

سوڈیم کلورائیڈ (NaCl) کی قلمی جالی میں آئنوں کی ترتیب کیسی ہوتی ہے؟

Q. 3: Write short answers to any five (05) questions: **(2 × 5 = 10)**

(i) Ammonia is produced industrially by Haber's process. Write its conditions and chemical equation.

امونیا صنعتی پیمانے پر ہیبر کے عمل کے ذریعے تیار کی جاتی ہے۔ اس عمل کی شرائط اور کیمیائی مساوات تحریر کریں۔

(ii) Why CO_2 is called an acidic gas while CO is called a neutral oxide?

CO_2 کو ایسڈک آکسائیڈ جب کہ CO کو نیوٹرل آکسائیڈ کیوں پکارا جاتا ہے؟

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(iii) What is difference between distilled water and tap water?

کشید شدہ پانی اور نلکے کے پانی میں کیا فرق ہے؟

(iv) Which pollutants are harmful for aquatic life?

کون سے آلودہ مادے آبی حیات کے لیے نقصان دہ ہیں؟

(v) Why ethylamine $CH_3CH_2NH_2$ is called an organic compound?

ایتھائل امین ($CH_3CH_2NH_2$) کو آرگینک کمپاؤنڈ کیوں کہتے ہیں

(vi) What is a homologous series? Write its two characteristics.

ہونولوگس سیریز کسے کہتے ہیں؟ اس کی دو خصوصیات تحریر کریں۔

(vii) How alkenes can be prepared from alkanes by cracking?

کریکنگ کے ذریعے الکینز کو الکینز سے کیسے تیار کیا جا سکتا ہے؟

(viii) Why is oxyacetylene flame so hot?

اکسی ایسیٹائلین شعلہ بہت گرم کیوں ہوتا ہے؟

Q. 4: Write short answers to any five (05) questions: **(2 × 5 = 10)**

(i) Ethyl alcohol is manufactured on a large scale by fermentation of glucose? Write its conditions and chemical equation.

ایتھائل الکحل گلوکوز کی فرمنٹیشن کے ذریعے بڑے پیمانے پر تیار کی جاتی ہے۔ اس عمل کی شرائط اور کیمیائی مساوات تحریر کریں۔

(ii) How ethanol is prepared from ethene?

ایتھین سے ایتھانول کیسے تیار کی جاتی ہے؟

(iii) How is ethanoic acid (acetic acid) prepared?

ایتھانوئک ایسڈ (ایسیٹک ایسڈ) کیسے تیار کیا جاتا ہے؟

(iv) How does ethanol react with propanoic acid?

ایتھانول، پروپینوئک ایسڈ کے ساتھ کیسے ری ایکشن کرتا ہے؟

(v) Write the basic differences between DNA and RNA.

ڈی این اے اور آر این اے کے درمیان بنیادی فرق تحریر کریں۔

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(vi) Give two examples of denaturation of proteins.

پروٹین کی ڈی نیچوریشن کی دو مثالیں دیں۔

(vii) What is the role of catalyst in addition polymerization?

ایڈیشن پولیمرائزیشن میں کیٹالسٹ کیا کردار ادا کرتا ہے؟

(viii) Define monomer and polymerization.

مونومر اور پولیمرائزیشن کی تعریف کریں۔

Subjective Type (Part II)

Note: Attempt any two questions. **(9 × 2 = 18)**

Q5 (a) State and explain Boyle's Law and Charles's Law on the basis of Kinetic Theory. Write their mathematical forms. (5)

کائنیٹک تھیوری کی بنیاد پر بوائل کا قانون اور چارلس کا قانون بیان کریں اور ان کی وضاحت کریں۔ ان کی ریاضیاتی صورتیں بھی تحریر کریں۔

(b) A compound contains 40.0% C, 6.71% H and 53.3% O by mass. A 0.032 mole of this compound weighs 28.8 grams. What is the molecular formula of this compound? (4)

ایک کمپاؤنڈ میں وزن کے لحاظ سے 40.0٪ کاربن (C)، 6.71٪ ہائیڈروجن (H) اور 53.3٪ آکسیجن (O) موجود ہیں۔ اس کمپاؤنڈ کے 0.032 مول کا وزن 28.8 گرام ہے۔ معلوم کریں کہ اس کمپاؤنڈ کا مالیکیولر فارمولا (Molecular Formula) کیا ہے؟

Q6 (a) What substances are present in water obtained from natural sources? Describe one useful substance and three harmful substances with their effects on health and water quality. (5)

قدرتی ذرائع سے حاصل ہونے والے پانی میں کون کون سے مادے موجود ہوتے ہیں؟ ایک مفید مادے اور تین نقصان دہ مادوں کے نام تحریر کریں اور صحت اور پانی کے معیار پر ان کے اثرات بیان کریں۔

(b) Describe two methods of preparation of ethene. (4)

ایتھین کی تیاری کے لیے دو طریقے بیان کریں۔

Q7: (a) Describe the preparation of ethanol by fermentation process. (5)

فرمنٹیشن (Fermentation) کے پراسس کے ذریعے ایتھانول (Ethanol) کی تیاری کی وضاحت کریں۔

(b) What are lipids? What are fatty acids? How are fats formed from fatty acids and glycerol? Give examples of fatty acids with their sources. (4)

لپڈز کسے کہتے ہیں؟ فیٹی ایسڈز کیا ہوتے ہیں؟ فیٹی ایسڈز اور گلیسرول سے چکنائیاں کیسے بنتی ہیں؟ فیٹی ایسڈز کی مثالیں ان کے ذرائع کے ساتھ دیں۔

PCTAA

List of Excluded Practicals of Chemistry-9 For Academic Session 2026-2027

- To demonstrate that temperature affects the solubility.
- To separate a given mixture by physical methods.
- To prepare 100 cm^3 of 0.1 mol dm^{-3} sodium hydroxide (NaOH) solution.
- To prepare 100 cm^3 of 0.1 mol dm^{-3} sodium carbonate (Na_2CO_3) solution.
- To prepare 250 cm^3 of 0.1 mol dm^{-3} HCl solution.

List of Excluded Practicals of Chemistry-10 For Academic Session 2026-2027

- To identify carboxylic acids using sodium carbonate test.
- To standardize the given NaOH solution volumetrically.
- To demonstrate the conductivity of given different solutions.
- To demonstrate the thermal decomposition of sugar.

PECTAA

PAIRING SCHEME OF CHEMISTRY PRACTICALS FOR GRADES 9-10

Max. Marks: 30 **Time: 2 hours**

Q. 1: Two practicals will be given from the 9th part. The candidate has to perform one practical out of them. Each practical will carry 12 marks, distributed as follows:

- The examiner in the laboratory will award you marks out of 5.
- The examiner in the BISE Marking Centre will award you marks out of 7.

Q. 2: Two practicals will be given from the 10th part. The candidate has to perform one practical out of them. Each practical will carry 12 marks, distributed as follows:

- The examiner in the laboratory will award you marks out of 5.
- The examiner in the BISE Marking Centre will award you marks out of 7.

3: Notebook (03)

4: Viva Voce (03)

MODEL PAPER CHEMISTRY PRACTICALS FOR GRADES 9-10

5, 7	**Q.1:** To demonstrate that miscible liquids dissolve in each other and immiscible liquids do not. **OR** To prepare pure copper sulphate ($CuSO_4$) crystals from the given impure sample.	1- قابلِ امتزاج مائعات ایک دوسرے میں حل ہو جاتے ہیں جبکہ ناقابلِ امتزاج مائعات ایک دوسرے میں حل نہیں ہوتے۔ بیان کریں۔ **یا** دیے گئے ناخالص نمونے سے خالص کاپر سلفیٹ ($CuSO_4$) کی قلمیں تیار کریں۔
5, 7	**Q.2:** To standardize the given HCl solution volumetrically. **OR** To demonstrate the conductivity of given different solutions.	2- دیے گئے HCl محلول کو حجمی طریقے سے معیاری بنائیں۔ **یا** دیے گئے مختلف محلولوں کی برقی موصلیت کا مظاہرہ کریں۔
3	**3:** Notebook	3- نوٹ بک
3	**4:** Viva Voce	3- زبانی سوالات

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