



Question Paper

10th Class Chemistry — Annual 2025 — Group I (english medium)

Board	BISE Lahore
Class / Subject	10th Class — Chemistry
Paper	Annual 2025 — Group I — english medium
Total marks	60
Objective	12 marks
Subjective	48 marks

Instructions

English medium. Objective: 12 MCQs, 12 marks, 15 minutes. Subjective: 48 marks, 1 hour 45 minutes — Part-I: Q.2, Q.3, Q.4 (attempt any 5 of 8 short questions each, 10 marks each); Part-II: attempt any TWO of Q.5, Q.6, Q.7 (each has parts (a) 5 marks and (b) 4 marks).

Question stems below are transcribed from the board paper scans. The full MCQ option sets are as printed on the board paper itself (see the scan sources in sources.md); the answer key with reasons is in solutions.md.

Objective (Q.1 — 12 MCQs)

- Q.1.** In an irreversible reaction, dynamic equilibrium:
- Q.2.** Which one of the following is a Lewis base:
- Q.3.** $K_4[Fe(CN)_6]$ is a:
- Q.4.** Which salt is used for manufacture of explosives, plastics and other chemicals:
- Q.5.** Anthracite contains the carbon content:
- Q.6.** Substitution reaction is the characteristics of:
- Q.7.** Which one of the following vitamins is water soluble:
- Q.8.** A good example of reducing sugar is:
- Q.9.** Which one of these pollutants is not found in car exhaust fumes:
- Q.10.** Which one of the following gases is used to destroy harmful bacteria in water:
- Q.11.** The type of hepatitis which can be caused by contaminated water is:
- Q.12.** Which one of the following is not fraction of residual oil:

Subjective — Part-I (short questions)

Q.2

- (i)** Write two macroscopic characteristics of forward reaction.
- (ii)** Write the equilibrium constant expression for the reaction: $2SO_2 + O_2 \rightleftharpoons 2SO_3$
- (iii)** Define chemical equilibrium state.
- (iv)** Write any two physical properties of acid.
- (v)** Write reaction of acid with sulphides (Give equation).
- (vi)** Write formula of sodium hydroxide and potassium hydroxide.
- (vii)** How are alkyl halides reduced?
- (viii)** Define hydrocarbons. Give an example.

Q.3

- (i)** Why and how carbon completes its octet?
- (ii)** Define destructive distillation.
- (iii)** What is an ester group? Write down the formula of ethyl acetate.
- (iv)** Write down the general formula of lipids.
- (v)** Write the names of two fatty acids with their formulae.
- (vi)** Define pollutants and contaminants.
- (vii)** How is the temperature of atmosphere maintained?

(viii) Write the health problems created by SO_2 .

Q.4

(i) Water dissolves sugar and alcohol, justify it.

(ii) Define soft water and hard water.

(iii) What is meant by leaching process?

(iv) Why are the non-polar compounds insoluble in water?

(v) How NaHCO_3 is converted to Na_2CO_3 ?

(vi) Describe froth flotation process.

(vii) How is roasting carried out in extraction of metal?

(viii) How is ammonia prepared for the manufacture of urea?

Q.5(a) Define salts. Explain preparation of soluble salts.

5 marks

Q.5(b) Differentiate between homocyclic and alicyclic compounds.

4 marks

Q.6(a) Give five uses of ethylene.

5 marks

Q.6(b) Explain the sources and uses of protein.

4 marks

Q.7(a) Define refining of petroleum and explain fractional distillation of petroleum.

5 marks

Q.7(b) Give four effects of acid rain.

4 marks

Note: Q.5, Q.6, Q.7 long-question prompts appear above under their part headings. This file lists every question in the paper; no question has been added or removed.