





# ELEMENTARY CHEMISTRY AND CHEMICAL PATHOLOGY HSSC-I

Time allowed: 2:20 Hours

Total Marks Sections B and C: 40

NOTE: Answer any thirteen parts from Section 'B' and any two questions from Section 'C' on the separately provided answer book. Use supplementary answer sheet i.e. Sheet-B if required. Write your answers neatly and legibly.

## SECTION – B (Marks 26)

Q. 2 Answer any THIRTEEN parts. The answer to each part should not exceed 2 to 4 lines. (13 x 2 = 26)

- (i) Differentiate between metals and non-metals.
- (ii) Convert 172°F to °C.
- (iii) How can we classify solutions?
- (iv) Define acid and base with examples.
- (v) Derive Handerson Hassel Bach equation for buffers.
- (vi) Write principle, parts and utilisation of analytical balance.
- (vii) Define Chemical Pathology and name types of analytical procedures.
- (viii) Enumerate Vitamins.
- (ix) Classify proteins.
- (x) What is Thymol turbidity test?
- (xi) What is clinical significance of blood cholesterol?
- (xii) Write note on Jaundice.
- (xiii) Define and explain Edema.
- (xiv) Write down normal values of blood cholesterol and uric acid.
- (xv) What is pH meter?
- (xvi) Write down significance of Chlorides in urine.
- (xvii) Why is Zinc important in the body?

## SECTION – C (Marks 14)

Note: Attempt any TWO questions. All questions carry equal marks.

(2 x 7 = 14)

Q. 3 Write note on following?

- a. Fractional distillation                      b. Titration

Q. 4 Write sources, classification and metabolism of lipids.

Q. 5 What is urea? How it is formed? Discuss its significance in Chemical Pathology and what is its normal value in serum?