

Roll No.

Answer Sheet No. _____

Sig. of Candidate. _____

Sig. of Invigilator. _____

ELEMENTARY CHEMISTRY AND CHEMICAL PATHOLOGY HSSC-I

SECTION – A (Marks 10)

Time allowed: 10 Minutes

NOTE: Section–A is compulsory. All parts of this section are to be answered on the question paper itself. It should be completed in the first 10 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q. 1 Circle the correct option i.e. A / B / C / D. Each part carries one mark.

- (i) The branch of chemistry deals with study of heat change during a chemical reaction is called:

A. Nuclear chemistry	B. Physical chemistry
C. Biochemistry	D. Thermal chemistry
- (ii) Which one of the following is non-metal?

A. Li	B. N
C. Mg	D. Ca
- (iii) The horizontal arrangement of elements in periodic table is called:

A. Lines	B. Groups
C. Periods	D. Columns
- (iv) By increasing temperature of liquid solid system, the solubility of solute:

A. Increases	B. Decreases
C. Become zero	D. No effect
- (v) The substance that tends to donate proton in aqueous solution is called:

A. Buffer	B. Base
C. Indication	D. Acid
- (vi) The clear fluid portion in centrifuge tube after centrifugation is called:

A. Precipitate	B. Supernatant
C. Deposit	D. Filtrate
- (vii) Which one of the following is a fat soluble vitamin?

A. Pyridoxine	B. Cholecalciferol
C. Riboflavin	D. Cobalamine
- (viii) ALT belongs to:

A. Vitamin	B. Carbohydrates
C. Lipids	D. Enzymes
- (ix) Which one of the following is not included in LFT's?

A. ALT	B. Triglycerides
C. ALP	D. Bilirubin
- (x) Normal value for bilirubin in serum is:

A. Upto 1	B. Upto 5
C. Upto 10	D. Upto 50

For Examiner's use only:

Total Marks:

10

Marks Obtained:



90

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) Write down chemical formula of vinegar and table salt.
- (ii) Enumerate methods of separation of heterogeneous mixtures.
- (iii) Convert 135°F to K.
- (iv) Explain effect of temperature on solubility.
- (v) Define pH and write down its formula.
- (vi) Discuss principle of titration.
- (vii) What do you mean by equilibrium in reversible chemical reactions?
- (viii) Draw sketch diagram of flame photometer.
- (ix) Write down principle of centrifuge.
- (x) Discuss role of calcium in our body.
- (xi) Enumerate important electrolytes in serum.
- (xii) What is significance of albumin in urine?
- (xiii) What is clinical significance of sugar in urine?
- (xiv) Define oligosaccharides.
- (xv) Classify vitamins.
- (xvi) What are normal values of alkaline phosphatase in blood?
- (xvii) Define Oedema.

SECTION – C (Marks 14)

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

(2 x 7 = 14)

- Q. 3** Define enzyme. Discuss classes of enzymes.
- Q. 4** What is uric acid? How it is formed? Write down its normal values in serum. Explain its clinical significance.
- Q. 5** Define and explain any two of the following:
- a. Sublimation
 - b. Filtration
 - c. Decantation