# 2020

## BIOCHEMISTRY — GENERAL

**Paper : SEC-A-2**

**(Clinical Biochemistry)**

**Full Marks : 80**

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

**1.** Answer ***any ten*** questions : 2×10

(a) What are the symptoms associated with high blood glucose level?

(b) State the different components of lipoprotein.

(c) What is direct bilirubin and indirect bilirubin?

(d) What does direct bilirubin indicate?

(e) Mention any one liver function test.

(f) What is hyperglycaemia?

(g) What is glomerular filtration rate?

(h) Name the method by which we can estimate blood glucose level.

(i) Mention the reference range of HDL and LDL.

(j) State two clinical conditions when serum cholesterol level is increased.

(k) When do a person is recommended to have a lipid profile test?

(l) What is the normal range of AST and ALT?

**2.** Answer ***any four*** questions :

(a) State the principle of glucose-oxidase test. Write down the reaction mechanism. 3+2

(b) What are lipoproteins? What are their functions? 2+3

(c) What is the significance of increase or decrease of SGOT and SGPT? 2½+2½

(d) (i) State the differences between serum and plasma.
(ii) What are anticoagulants?
(iii) Give an example of *in vitro* anticoagulant. 2+2+1

(e) What facts will you consider as the marker of liver dysfunction? State the panel of liver enzymes that are considered as markers of liver injury. 3+2

**Please Turn Over**

**3.** Answer ***any four*** questions :

(a) Describe the markers for

(i) Liver disorders

(ii) Kidney disorders. 5+5

(b) (i) What does creatine kinase do?

(ii) What is the significance of troponin as cardiac marker?

(iii) How many isozymes of LDH are present in blood? 2+3+5

(c) (i) What is the medical significance of LDH in serum?

(ii) Name the biochemical parameters for cardiovascular disease.

(iii) What kind of abnormal components are present in urine in different disease states? 2+3+5

(d) (i) State two abnormalities and their interpretation that are detected in dipstick method for urine analysis.

(ii) Briefly describe the method for quantitative determination of serum creatinine.

(iii) What will you interpret if the appearance of urine is cloudy or opalescent? (2+2)+4+2

(e) (i) How is the vial for estimation for blood glucose to be prepared? Give the biochemical reason for such measure.

(ii) What are the parameters of 'Lipid profile'? Why is the assessment of lipid profile is important clinically? (2+3)+(2+3)

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