

**2020**

**PHYSIOLOGY — HONOURS**

**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.*

**Group - A**

1. Answer **any ten** questions :

2×10

- (a) What is Oral Glucose Tolerance Test (OGTT)?
- (b) What does low and high haptoglobin value indicate?
- (c) What is Bodansky unit?
- (d) What are the sources of amylases?
- (e) Name the non-pancreatic hormones responsible for blood glucose regulation.
- (f) What do you mean by Ketonuria?
- (g) What is myocardial infarction?
- (h) What do you mean by endemic goiter?
- (i) What are HDL and LDL?
- (j) Distinguish between conjugated and unconjugated bilirubin.
- (k) What do you mean by hypoglycemia and hyperglycemia?
- (l) Why excess Ketone bodies are produced during starvation?

**Group - B**

2. Write short notes on **any four** :

5×4

- (a) Pathophysiological significance of Urea and its normal value
- (b) Thyroid profile in health and disease
- (c) Pathophysiological significance of SGPT
- (d) Diabetes Mellitus
- (e) Pathophysiological significance of serum amylase
- (f) Normal value and pathophysiological significance of Uric acid.

**Please Turn Over**

**Group - C**

Answer *any four* questions.

3. (a) What is the pathophysiological significance of SGOT?  
(b) Explain the term 'jaundice'.  
(c) What are the causes of diabetic ketoacidosis and ketosis? 3+4+3
  4. (a) What are the different isoenzymes of creatine Kinase (CK)?  
(b) What is the pathophysiological significance of creatinine?  
(c) State the role of serum enzymes in the assessment of liver function. 3+3+4
  5. (a) What do you understand by the term 'lipid profile'?  
(b) Discuss the changes in lipid profile in cardiovascular diseases. 4+6
  6. Discuss the pathophysiological significance of Cardiac Troponins and Regan isoenzymes. 5+5
  7. Write short notes on : (a) Hyperbilirubinemia (b) Pathophysiological significance of serum proteins. 5+5
  8. (a) What are different isoenzymes of Lactate dehydrogenase (LDH)?  
(b) Write the pathophysiological significance of LDH. 4+6
  9. (a) What do you mean by thyroid function test?  
(b) What are the clinical features of hypothyroidism?  
(c) Write down the functions of  $\beta$ -glucuronidase. 2+5+3
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