

**MBBS I (First) Professional Examination 2018-19**

Course Code: MBS103

Paper ID: 03219208

**Biochemistry -I**

Time: 2 Hours 40 Minutes

Max Marks: 40

**Note:** Attempt all questions. Draw proper diagrams to support your answer.

**Part 'B'**

1. What is the normal blood glucose level? Discuss the factors regulating blood glucose in the fasting and postprandial states. Write the diagnostic criteria for diabetes mellitus. (10)
2. Discuss the biochemical alterations seen in blood and urine in different types of Jaundice. (10)
3. Describe the importance of serum enzyme estimations in clinical diagnosis. (10)
4. Write short notes on the following: (2x5=10)
  - a) Transport mechanisms of glucose
  - b) Phenylketonuria
  - c) Inhibitors of ETC
  - d) Second messengers
  - e) Ketogenesis

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Roll No.

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Student's Signature

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Student's Name

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Invigilator's Signature

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**Biochemistry – I****Part 'A'**

Time: 20 Minutes

Max Marks: 10

- Note:** 1. Attempt all questions and return this part of the question paper to the invigilator after 20 Minutes.  
2. Please tick (✓) correct one only. Cutting, overwriting or any other marking are not allowed.  
3. For answering please use Ball- pen only.

- FirstRanker.com**  
FirstRanker's choice
- d) Dicoumarol
7. Which of the following is not present in human cell membrane:
- Endotoxin
  - Cardiolipin
  - Proteoglycan
  - Lipopolysaccharide
- Q.3 All the following are branched chain amino acids except:
- Isoleucine
  - Threonine
  - Valine
  - Leucine
- Q.4 Which of the following contains **only alpha** glycoside linkages:
- Starch
  - Cellulose
  - Lactose
  - Sucrose
- Q.5 Which of the following is not a phospholipid:
- Cerebroside
  - Sphingomyelin
  - Lecithin
  - Cephalin
- Q.6 N-3 of purine ring is donated by:
- Aspartate
  - Ammonia
  - Glycine
  - Glutamine
- Q.7 In a competitive inhibition:
- K<sub>m</sub> is decreased V<sub>max</sub> remains same
  - K<sub>m</sub> is increased V<sub>max</sub> remains same
  - K<sub>m</sub> is decreased V<sub>max</sub> is increased
  - K<sub>m</sub> is increased V<sub>max</sub> is increased
- Q.8 Gluconeogenesis is inhibited by:
- Insulin
  - Glucocorticoids
  - Glucagon
  - Growth hormone
- Q.9 Deficiency of glucose-6-phosphate dehydrogenase causes:
- It inhibits ATP synthase
  - It forms a complex with NADH
  - It makes mitochondria permeable to potassium
- Q.10 Fatty liver may be prevented by the following, except:
- Choline
  - Inulin
  - Lecithin
  - Methionine
- Q.11 The main apoprotein present in chylomicron:
- B100
  - E2
  - D
  - B48
- P.T.O.
- Q.12 Ammonia is trapped in brain by:
- Glutamate dehydrogenase reaction
  - Glutamine reaction
  - Glutamine Synthetase reaction
  - Urea Synthesis cycle
- Q.13 Acute intermittent porphyria (AIP) is:
- Characterized by photodermatitis
  - An autosomal dominant trait
  - Hemolytic anemia is associated
  - More common in men than women
- Q.14 Serum acid Phosphatase (ACP) level is increased in:
- Excess phosphate intake
  - Rickets
  - Hepatoma
  - Prostatic carcinoma
- Q.15 Which of the following is a simple protein:
- Casein
  - Insulin
  - Hemoglobin
  - Tyrosinase
- Q.16 Name the defective enzyme in methyl malonyl aciduria:
- Phenylalanine Hydroxylase
  - Methyl malonyl CoA mutase
  - Propionyl CoA carboxylase
  - Cystathionine synthase
- Q.17 Valinomycin inhibit oxidative phosphorylation because:
- It inhibits cytochrome oxidase
- Q.18 The most potent thyroid hormone:
- T<sub>4</sub>
  - T<sub>3</sub>
  - T<sub>2</sub>
  - T<sub>1</sub>
- Q.19 Amino acid carrier defect is found in:
- Maple Syrup Urine disease
  - Alkaptonuria
  - Phenylketonuria
  - Cystinuria
- Q.20 Triglycerides in serum are transported by:
- HDL
  - IDL
  - LDL
  - Chylomicrons