

Date: 07-10-2018

MK 16805

First Year MBBS Examination

I MBBS Biochemistry Paper 1

Time: 3 hours Max Marks: 50

Instructions: 1. Answer to the points. 2. Figure to the right indicates marks. 3. Use separate answer books for each section. 4. Draw diagrams wherever necessary. 5. Write legibly.

### Section 1

1. Give an account of: (any two) (10)
  - a. Diabetes Mellitus types, metabolic arrangements, clinical symptoms and its associated complications
  - b. Cardiac Biomarkers
  - c. Hemoglobinopathies

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2. Write Short notes on (any three) (9)

- a. Mucopolysaccharides and its associated disorders (A. 98) (C.22)
  - b. Biological action and clinical applications of Prostaglandins (A. 243) (C.644)
  - c. Isoenzymes of Alkaline Phosphate and their clinical significance
  - d. Competitive inhibition and state how it differs from Non-competitive inhibition (A. 63) (C.92)
  - e. Unconjugated hyperbilirubinemia
3. Write Short notes on (any two) (6)
- a. Metabolic acidosis (A. 402) (C.481)
  - b. Role of rennin-angiotensin-aldosterone system in regulation of water balance
  - c. Renal function test (A. 370) (C. 459)

## Section 2

4. Give an account on (any two) (10)
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- a. Ketone bodies metabolism
- b. HMP shunt pathway and its significance  
(A. 144) (C. 270)
- c. Regulation of blood glucose and state the reference range of plasma glucose

5. Write Short notes of (any three) (9)

- a. Proto-oncogenes and mechanism of activation of proto-oncogenes to oncogenes
- b. Air pollution (A. 534) (C.663)
- c. Structural organization of Electron transport chain and inhibition of oxidative phosphorylation (A. 315, 318) (C. 226, 232)
- d. Antioxidant enzymes (A. 426) (C.658)
- e. Principles and applications of chromatography (A. 434) (C.719)

6. Write Short notes on (any three) (6)

- a. Cholinesterase enzyme activity decreases in organ phosphorous poisoning
- b. Glucose is administered to relieve an attack of acute intermittent porphyria
- c. Enzymes are used as therapeutic agents
- d. Lipoprotein (is strongly associated with myocardial infarction
- e. Lactulose is used for the treatment of hepatic encephalopathy
- f. In obstructive jaundice stools are clay coloured and urine is dark yellow
- g. Viper bites causes severe hemolysis
- h. Excessive alcohol consumption lead to fatty liver

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