

# 2019 Scheme

Q.P. Code: 116001

Reg. no.: .....

## First Professional MBBS Degree Supplementary (SAY) Examinations May 2023

### Biochemistry - Paper II

Time: 3 Hours

Total Marks: 100

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

#### Long Essays

(2x15=30)

1. 42-year-old obese lady presented with intolerance to fatty foods and pain in right abdominal region. On examination, her eyes were yellowish; stools had clay-colored appearance. Her investigations revealed the following.

Serum bilirubin -18 mg/dl

Direct bilirubin-17 mg/dl

AST-35 IU/L

ALT-40 IU/L

ALP-400 IU/L

- What is the probable diagnosis
  - What is the normal serum Bilirubin level
  - Describe the catabolism of Heme.
  - What is the biochemical basis of clay colored stools
  - What will be the probable urinary findings in this patient (1+1+8+1+4)
2. Structure, types and functions of immunoglobulins. (5+5+5)

#### Short essays

(5x8=40)

- Normal serum calcium and its regulation. (1+7)
- What are the causes, biochemical findings and compensatory mechanisms in metabolic acidosis. (4+1+2+1)
- Phase I detoxification reaction.
- Absorption, transport and storage of iron.
- What is the role of buffers in regulating blood pH.

#### Short answers

(5x4=20)

- List the blot/blotting techniques and the applications of each type.
- Keratin.
- Outline the pathway of purine catabolism.
- Micro arrays.
- Role of oxidative stress in pathogenesis of cancer.

#### Give Precise Answers

(10x1=10)

- Enzyme defect in Lesch – Nyhan syndrome.
- Functions of iodine.
- A patient presented with excretion of urine more than 20 litres per day. Specific gravity of his urine sample was 1.002. What is your diagnosis.
- Degeneracy of genetic code.
- What is the role of Telomerase enzyme.
- Fastest moving plasma protein in electrophoresis is-----
- Two copper containing enzymes.
- Name four oncogenes.
- One example for Prion disease.
- Reference interval of serum sodium and potassium.

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