

## 2019 Scheme

Q.P. Code: 116001

Reg. no.: .....

### First Professional MBBS Degree Regular/Supplementary Examinations February 2023 Biochemistry - Paper II

Total Marks: 100

Time: 3 Hours

- 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

(2x15=30)

#### Long Essays

- 35-year-old female, housewife, presented to the medicine department with excessive weakness, breathlessness and palpitations since 3 months. History revealed that she had complaints of excessive menstrual bleeding. She had followed strict vegetarian diet. Investigations revealed her hemoglobin was 7 Gms/dl  
a) What is the probable diagnosis (1)  
b) Describe the sources, RDA, functions, absorption, transport and deficiency of the mineral involved (1+1+3+3+2)  
c) Describe the biochemical investigations and blood picture relevant to this case (4) (1+1+3)
- Definition, steps and inhibitors of translation (5x8=40)

#### Short essays

- Diagrammatically represent the structure of tRNA. Describe the functions of tRNA (4+4)
- Principle and applications of Beer-Lambert's law. Add a note on colorimetry (3+5)
- Classify renal function tests. Describe clearance tests in detail (5+3)
- Describe PCR and its applications. Add a note on its significance in diagnosis of covid-19 (4+2+2)
- Discuss the structure and functions of immunoglobulin. Add a note on monoclonal antibodies (4+2+2) (5x4=20)

#### Short answers

- Contractile proteins
- Mucosal block theory
- Salvage pathway
- Effects of free radicals
- Detoxification by conjugation

(10x1=10)

#### Give Precise Answers

- Biochemical defect in orotic aciduria
- Disease associated with DNA repair
- What is a telomere
- Function of calcium responsible for prevention of tetany
- Western blot
- Reverse transcriptase
- Benzoic acid, a food preservative, is detoxified by-----
- Two causes for respiratory acidosis
- Microalbuminuria
- Two functions of magnesium

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