



## 2019 Scheme

Q.P. Code: 116001

Reg. no.: .....

**First Professional MBBS Degree Regular/Supplementary Examinations****February 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. 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 gm/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)
2. Definition, steps and inhibitors of translation (1+1+3)

**Short essays****(5x8=40)**

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

**Short answers****(5x4=20)**

8. Contractile proteins
9. Mucosal block theory
10. Salvage pathway
11. Effects of free radicals
12. Detoxification by conjugation

**Give Precise Answers****(10x1=10)**

13. Biochemical defect in orotic aciduria
14. Disease associated with DNA repair
15. What is a telomere
16. Function of calcium responsible for prevention of tetany
17. Western blot
18. Reverse transcriptase
19. Benzoic acid, a food preservative, is detoxified by-----
20. Two causes for respiratory acidosis
21. Microalbuminuria
22. Two functions of magnesium

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