

Q.P. Code: 116001**Reg. no.:****First Professional MBBS Degree Regular Examinations March 2021**
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. A 20 years old young man was brought to casualty with road traffic accident. He sustained injury to chest wall. ABG analysis showed pH 7.25, pCO₂ 54 mm Hg, HCO₃ is 23 mEq/L.
 - Explain the mechanism of maintaining Blood pH.
 - What is the diagnosis
 - What is the biochemical change in these disorders
 - Define the other acid base balance disorders**(7+2+3+3)**
2.
 - Define transcription.
 - Steps of transcription in prokaryotes.
 - Post transcriptional modification.
 - Inhibitors of transcription.**(1+8+3+3)**

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

3. Steps and applications of polymerase chain reaction.
4. Antioxidants: definition and classification. **(8)**
5. Explain source, RDA, absorption, transport and storage of Iron.
6. Principles and application of electrophoresis. **(2+6)**
7. What are different types and function of Immunoglobulin.

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

8. Name four tumour markers and its significance.
9. Elastin.
10. Explain the Genetic code. What are the salient features of genetic code.
11. Explain detoxification. Explain different phase of detoxification.
12. A/G ratio.

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

13. Two enzyme markers of Hepatocellular Jaundice.
14. Creatine kinase.
15. Name two vectors of gene therapy.
16. Mutagens.
17. Henderson Hasselbach equation.
18. Functions of fluoride.
19. Lesch Nyhan syndrome.
20. Normal serum potassium and sodium.
21. Name three hormones regulating blood calcium level.
22. Name two inhibitors of Purine biosynthesis
