

Rajiv Gandhi University of Health Sciences, Karnataka
Second Semester B.Pharm Degree Examination – 29-Oct-2024

Time: Three Hours

Max. Marks: 75 Marks

BIOCHEMISTRY
Q.P. CODE: 5007

Your answers should be specific to the questions asked

Draw neat labeled diagrams wherever necessary

All the questions are compulsory

LONG ESSAYS

2 x 10 = 20 Marks

1. Explain the TCA cycle and give its significance with energetics.
OR
Describe the biosynthesis of purine nucleotides.
2. Explain the semiconservative replication of DNA in detail.

SHORT ESSAYS

7 x 5 = 35 Marks

3. Give the chemical classification of amino acids.
OR
Define enzymes. Give IUB classification of enzymes.
4. Define co-enzymes. Give the structure and functions of NAD⁺ and FAD⁺.
OR
Describe HMP Pathway and its significance.
5. Explain gluconeogenesis with reactions involved in it and write its importance.
6. Describe the double helical structure of DNA.
7. Write the formation of ketone bodies in the body.
8. Explain the synthesis of bile acids.
9. Describe the process of transcription.

SHORT ANSWERS

10 x 2 = 20 Marks

10. What constitutes Holoenzyme? Give examples.
11. Name the essential amino acids.
12. Define K_m and write its significance.
13. Write the inhibitors of ETC.
14. What is β-oxidation of fatty acids?
15. Write the structure and biochemical functions of cyclic AMP.
16. Write the types of diabetes mellitus.
17. What is fatty liver?
18. What is gout?
19. What are the functions of t-RNA?
