

# Rajiv Gandhi University of Health Sciences, Karnataka

## Second Semester B.Pharm Degree Examination – 22-Mar-2021

**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. Describe urea cycle and explain the general reaction of amino acids  
**OR**  
Explain the factors affecting enzymes activity. Derive Michealis-Menten equation and line weaver burke plot
2. Describe biosynthesis of purines nucleotides

#### **SHORT ESSAYS**

**7 x 5 = 35 Marks**

3. Explain about HMP Pathway and its significance  
**OR**  
Write note on catabolism of tyrosine
4. Explain the double helical structure of DNA  
**OR**  
Explain  $\beta$ -oxidation saturated fatty acids
5. Explain about formation and utilization of ketone bodies
6. Explain the disorders of lipid metabolism
7. Explain about electron transport chain
8. Write note on gluconeogenesis and its significance
9. Write note on hormonal regulation of blood glucose level

#### **SHORT ANSWERS**

**10 x 2 = 20 Marks**

10. Name the therapeutic application of enzymes
11. Write chemical structure of following amino acids a) Tryptophan b) Glutamic acid
12. Types of glycogen storage diseases
13. Write significance of 5-hydroxy tryptamine and noradrenaline
14. What is hyper bilirubinemia?
15. Name the inhibitor and uncouplers of electron transport chain
16. Define essential amino acids with examples
17. What is Gout? Mention the symptoms
18. Name the enzymes present in DNA replication
19. Define competitive and non-competitive enzyme inhibition

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