

# 2012 Scheme

QP CODE: 217006

Reg. No: .....

## Second Year B. Pharm Degree Supplementary Examinations January 2023 Applied Biochemistry & Molecular Biology

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
- Write equations wherever necessary.

### Essay

(3x10=30)

1. Discuss the steps involved in Glycolysis and its energetics.
2. Explain  $\beta$ -oxidation of saturated fatty acids.
3. Define DNA replication. Discuss the steps involved in semi-conservative model of DNA replication

### Short notes

(14x5=70)

4. Differentiate facilitated and active transport process.
5. Define and classify energy rich compounds with examples.
6. Discuss Michaelis-Menton equation.
7. Give the IUB classification enzymes with suitable example for each class.
8. Define and differentiate oxidative phosphorylation and substrate level phosphorylation.
9. Define and classify carbohydrates.
10. Discuss the amphibolic role of citric acid cycle.
11. Briefly write the catabolism of cholesterol.
12. Write the biosynthesis of phospholipids.
13. Explain phenylketonuria and alkaptonuria with clinical significance.
14. Explain the synthesis and significance of creatine.
15. Write the structure of major purine and pyrimidine bases present in nucleotides.
16. Define Genetic code. Write the general features of genetic code.
17. Name the different types of DNA damage and give one mechanism of DNA repair.

\*\*\*\*\*