

**Second Year B.Pharm Degree Supplementary Examinations
December 2018****Applied Biochemistry & Molecular Biology****(2012 Scheme)****Time: 3 Hours****Total Marks: 100**

- Answer all Questions.
- Write equations wherever necessary.

Essay**(3x10=30)**

1. What are lipids. Explain beta-oxidation of fatty acids with its energetics.
2. Discuss the different steps involved in the catabolism of purine. Add a note on the disorders associated with impaired catabolism of purine.
3. Enlist the different types of RNA and explain the process of transcription and translation.

Short notes**(14x5=70)**

4. Okazaki fragments.
5. Point mutations and frameshift mutations.
6. Urea cycle
7. What are isoenzymes. With a suitable example mention their clinical significance.
8. Explain the synthesis and significance of histamine in our body.
9. Production and biological significance of cyclic AMP.
10. Explain the biochemical functions of mitochondria and golgi bodies.
11. Gibbs free energy
12. Enlist DNA repair mechanisms and explain anyone in detail.
13. Derive Michaelis-Menten equation.
14. Glycolysis and its significance
15. Significance of HMP shunt.
16. Enlist the five main steps in cholesterol synthesis.
17. Enlist the different components of a PCR and mention their role in the reaction.
