## I Semester M.Sc. in Biotechnology Examination, September 2016 BIOCHEMICAL TRANSFORMATION AND CLINICAL SIGNIFICANCE

Time: 3 Hours Max. Marks: 80

Instructions: Answer all the Sections.

## SECTION - A

Answer any four questions from the following:

 $(4 \times 5 = 20)$ 

- 1. Glyoxylate cycle.
- 2. Mitchell's hypothesis.
- 3. Atherosclerosis.
- 4. Gout and Lesch-Nyhan syndrome.
- 5. Photorespiration.
- 6. Urea cycle.

## SECTION - B

Answer any three questions from the following:

 $(3 \times 10 = 30)$ 

- 7. Glycolysis.
- 8. Photosystem I and II.
- β-oxidation of saturated fatty acid.
- 10. Metabolic disorders of nucleotide metabolism.
- 11. Diabetes mellitus.

## SECTION - C

Answer any two questions from the following:

 $(2 \times 15 = 30)$ 

- 12. Explain in detail about electron transport chain.
- 13. Describe the Calvin cycle. Add a note on Rubisco.
- 14. Give an account on the biosynthesis of saturated fatty acid.
- 15. Write in detail about the synthesis of IMP by de novo pathway.