

FACULTY OF SCIENCE

B.Sc. IV-Semester (CBCS) Examination, May / June 2018

Subject: Biochemistry

**Paper – IV
Intermediary Metabolism**

Max.Marks: 80

Time: 3 Hours

**PART – A (5x4 = 20 Marks)
[Short Answer Type]**

Note: Answer any five of the following questions.

- 1 Decarboxylation of amino acids
- 2 Maple syrup urine disease *PMP, glutaric aciduria, glutaric aciduria*
- 3 Pasteur effect
- 4 Anaplerotic reactions
- 5 Regulation of cholesterol synthesis
- 6 Elongation of fatty acids in mitochondria
- 7 Gout
- 8 Catabolism of pyrimidines

**PART – B (4x15 = 60 Marks)
[Essay Answer Type]**

Note: Answer all questions from the following.

- 9 a) Describe the reactions of urea cycle. Add a note on its regulation. *13*
OR
b) Write in detail about:
i) Metabolism of aspartic acid
ii) In born errors of aromatic amino acids
- 10 a) Write in detail about glycogenolysis. *11*
OR
b) What is photo synthesis? Discuss the various light reactions in detail.
- 11 a) Describe the stages in the biosynthesis of cholesterol. *12*
OR
b) Write briefly about β – oxidation and its regulation.
- 12 a) discuss the denovo pathway for purine biosynthesis. *6*
OR
b) Write briefly about:
i) Lesch-Nyhan's syndrome
ii) Catabolism of purine.