



Reg. No. : .....

Name : .....

**Fourth Semester M.Sc. Degree Examination, July 2018**

**Branch : HOME SCIENCE**

**X D : Food and Nutrition**

**Paper – XIII : HS 241 D – Biochemistry**

**(2013 Admn. Onwards)**

Time : 3 Hours

Max. Marks : 75

**PART – I**

**All questions carry equal marks. No answer should exceed four pages.**

1. a) Discuss the metabolism of carbohydrates with reference to glycolysis and TCA cycle.

OR

- b) Explain the principles and applications of paper chromatography.

2. a) Explain the structure of proteins and the general pathways for the metabolism of amino acids.

OR

- b) Write an essay on Polyacrylamide Gel Electrophoresis. (15×2=30 Marks)

**PART – II**

**All questions carry equal marks. No answer should exceed two pages.**

3. a) Explain the use of radioactive isotopes in biological investigations.

OR

- b) Discuss the biosynthesis and breakdown of purine nucleotides.

4. a) Discuss the intermediary metabolism between nutrients.

OR

- b) Explain the metabolism of lipids with reference to biosynthesis of fatty acids and cholesterol. (10×2=20 Marks)

P.T.O.



PART – III

5. Write **any five** of the following each **not** exceeding **one** page

- a) Principle of Colorimetry
- b) Immunoelectrophoresis
- c) Synthesis of Haemoglobin
- d) Glycogenesis and Glycogenolysis
- e) Mucopolysaccharides
- f) Urea cycle
- g) Oral Glucose Tolerance Test.

(5×5=25 Marks)

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