

**FACULTY OF SCIENCE**  
**M. Sc. II – Semester Examination, May / June 2018**

**Subject : Biochemistry**  
**Paper – IV**  
**Endocrinology and Metabolic Disorders**

Time : 3 Hours

Max. Marks: 80

Note : Answer all questions from Part-A and Part-B. Each question carries 4 marks in Part-A and 12 marks in Part - B.

**PART – A (8 x 4 = 32 Marks)**  
**(Short Answer Type)**

- 1 Prolactin.
- 2 Testosterone and estradiol.
- 3 Contraception.
- 4 Stress.
- 5 Diabetes.
- 6 Hyperphenylalaninemia.
- 7 Gaucher's disease.
- 8 Gout.

**PART – B (4 x 12 = 48 Marks)**  
**(Essay Answer Type)**

- 9 (a) Write an essay on mechanism of action of peptide hormones and receptors.  
OR  
(b) Give the chemistry, synthesis and disorders of thyroid hormones.
- 10 (a) Describe endocrine regulation of growth. Add a note on regulatory pathways.  
OR  
(b) Describe in detail calcium homeostasis. Add a note on adipo-cytokines.
- 11 (a) Give an account of hemoglobinopathies and thalassemia.  
OR  
(b) Write short notes on: (i) Disorders of tyrosine metabolism (ii) Maple syrup urine disease.
- 12 (a) Enumerate the clinical features, genetics of Down's and Turner's syndrome.  
OR  
(b) Write short notes on (i) Lesch-Nyhan syndrome (ii) Fabry disease.

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