FACULTY OF SCIENCE
M. Sc. I – Semester Examination, January 2018
Subject: Biochemistry
Paper – IV
Bioenergetic and Cell Biology

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. Types of Bonds
2. Biological oxidation
3. Media for bacterial growth
4. Antibiotics
5. Microtubules
6. Mitosis
7. Atomic force microscopy
8. Isolation of organelles

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

9. (a) Explain the laws of thermodynamics.
   OR
   (b) Write about the ETSIN mitochondria and ETC in mitochondria.

10. (a) Describe about factors effecting growth.
    OR
    (b) Explain the large scale production of bacteria.

11. (a) Write about the polytene and camp brush chromosomes.
    OR
    (b) Give detailed account on APOPTOSIS.

12. (a) Write about electron microscope with applications.
    OR
    (b) Describe about FACS (flow cytometry and cell sorting).

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