

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
M.Sc./I.M.Sc., Winter 2019-20 Examination

Semester: M.Sc1/ IM.Sc.7

Subject Code: 11201101

Subject Name: Principle of cell biology

Date: 25/11/2019

Time: 10:30am to 1:00pm

Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**
 (a) Describe meiosis process in cell division
 (b) Describe mitosis process in cell division
- Q.1. B) Answer the following questions (Any two) (04)**
 (a) Short note/ Brief note (2x2) (04)
 1. Draw a labeled diagram of cell cycle.
 2. Draw a labeled structure of animal and plant cell
 (b) Write short note on phagocytosis. (04)
 (c) Describe the active transport mechanism for uptake of nutrients through cell membrane. (04)
- Q.2. A) Answer the following questions. (04)**
 (a) Write short note on lysosome. (04)
 (b) Give structure, morphology & functions of plasma membrane. (04)
- Q.2. B) Answer the following questions (Any two) (03)**
 (a) Write functions of golgi complex. (03)
 (b) Write role of ribosomal protein in translation. (03)
 (c) Write functions of endoplasmic reticulum. (03)
- Q.3. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**
 (a) Write short note on calvin cycle for carbon fixation.
 (b) Write functions of mitochondria.
- Q.3. B) Answer the following questions (Any two) (04)**
 (a) Short note/ Brief note (2x2) (04)
 1. What is apoptosis?
 2. Write difference between simple & facilitated diffusion.
 (b) Write short note on photophosphorylation. (04)
 (c) Write short note on group translocation. (04)
- Q.4. A) Answer the following questions. (04)**
 (a) What is microevolution? Give types of microevolution. (04)
 (b) Write short note on Darwinism. (04)
- Q.4. B) Answer the following questions (Any two) (03)**
 (a) Write short note on theory of abiogenesis (origin of life-spontaneous generation) (03)
 (b) Write short note on RNA world. (03)
 (c) Write short note on theory of Biogenesis. (03)