



**HEF-003-1191001**

Seat No. \_\_\_\_\_

**M. Sc. (Microbiology) (Sem. I) (CBCS) Examination**  
**November / December – 2017**  
**MICRO-101 : Cell Biology**

**Faculty Code : 003**  
**Subject Code : 1191001**

Time :  $2\frac{1}{2}$  Hours ]

[ Total Marks : 70

- 1 Answer the following : (any **seven** out of ten, each of 02 marks) **14**
- (1) What is mitosis?
  - (2) What is phagocytosis? Exemplify.
  - (3) Enlist functions of GERL system.
  - (4) What is facilitated diffusion?
  - (5) Enlist functions of lysosome.
  - (6) What are the steps in photosynthesis?
  - (7) What is a chromosome and what does it do?
  - (8) What is cancer?
  - (9) What is the function of Nucleolus?
  - (10) What happens in S phase of the cell cycle?
- 2 Answer the following : (any **two** out of three, each of 07 marks) **14**
- (a) What are the events that happens during various stages of cell cycle?
  - (b) What are special types of chromosomes? Briefly describe.
  - (c) Discuss in detail ultra-structure of Plant cell wall.
- 3 Answer the following : ((a) and (b) -Both are compulsory, each of 07 marks) **14**
- (a) Write a short note on Chloroplasts.
  - (b) What is cytoskeleton? Briefly describe.

**OR**

- 3** Answer the following : ((a) and (b) Both are compulsory, **14**  
each of 07 marks)
- (a) What are intracellular junctions? Enlist its types and discuss any one in detail.
  - (b) Write a note on "Second messenger system".
- 4** Answer the following : (each of 07 marks) **14**
- (a) What is Apoptosis? Describe its mechanism and briefly state its significance.
  - (b) Briefly describe "Peroxisomes" and "Glyoxisomes".
- 5** Answer the following : (any **two** out of four, each of 7 marks) **14**
- (a) What are cell surface receptors? State their functions.
  - (b) Write a note on "Nuclear membrane".
  - (c) Write a note on "AIDS".
  - (d) Write a note on active transport.
-