



MBZ-003-1132001 Seat No. _____

**M. Sc. (Microbiology) (W.E.F. 2016) (Sem. II)
(CBCS) Examination**

April / May - 2018

BT - 206 : Molecular Cell Biology

Faculty Code : 003

Subject Code : 1132001

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

[Total Marks : 70

1 Answer the following : (Any **Seven** out of Ten, each of **14**
02 marks)

- (1) Enlist stages of cell cycle.
- (2) What is G-protein?
- (3) What is apoptosis?
- (4) What are centrioles?
- (5) How would you differentiate cilia and flagella?
- (6) What is motor protein? Give its role.
- (7) What is fertilization?
- (8) What is cancer? Enlist factors causing cancer.
- (9) What is crossing over?
- (10) Enlist events happening during S phase of cell cycle.

2 Answer any **two** the following : (Each of **07** marks) **14**

- (a) Enlist events happening during G1 and G2 stages of cell cycle.
- (b) Write a note on molecular basis of signal transduction
- (c) Write a note on applications of genomics and proteomics in the field of cancer

3 Answer the following : (Each of 07 marks) **14**

- (a) Write a note on regulation Factors regulating apoptotic death in normal cells and tumorous cells
- (b) What is necrosis? Explain.

OR

3 Answer the following : (Each of 07 marks) **14**

- (a) What is functional role of actins filaments? Explain.
- (b) Briefly discuss on the cytoskeleton and cell behaviour

4 Answer the following : (Each of 07 marks) **14**

- (a) What is Cell differentiation? Explain.
- (b) Give roles of different proteins in fertilization.

5 Answer any **two** of the following : (Each of 07 marks) **14**

- (a) What is in vitro fertilization? Explain.
- (b) Write a note on events happening during fertilization and post fertilization,
- (c) Write a note on oncogenes and cancer.
- (d) Briefly discuss on present and future cancer treatment.
