



**JBD-003-1181001** Seat No. \_\_\_\_\_

**M. Sc. (Zoology) (Sem. I) (CBCS) (W.E.F. 2016)  
Examination**

**December - 2019**

**Zool - 101 : Cell Biology**

**Faculty Code : 003**

**Subject Code : 1181001**

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

[Total Marks : 70

**1 Answer the following : (Any Seven) 2×7=14**

- (a) Describe functions of Nuclear Pore Complex.
- (b) Briefly describe the chemical constituents of the nucleus.
- (c) What are the functions of membrane Protein?
- (d) What are the components of GERL or endomembrane system?
- (e) Differentiate between leucoplasts and chromoplasts.
- (f) Describe the role of integrins in cellular adhesion process.
- (g) Describe voltage gated uniporter.
- (h) What is cell drinking?
- (i) Write about insulin receptor in brief.
- (j) What is G-protein coupled receptor?

**2 Answer of the following : (Any Two) 7×2=14**

- (a) Describe ultrastructure of Nucleolemma and its functions.
- (b) Describe the ultrastructure and functions of the lysosomes.
- (c) Write a note on nucleosome and solenoid structure.

- 3** Answer the following : **7×2=14**
- (a) Describe the structure, chemical nature and functions of glyoxisomes.
  - (b) Describe the photosynthetic units and reaction centers in chloroplast.

**OR**

- 3** Answer the following : **7×2=14**
- (a) Describe the role of cellular movements by the cytoskeleton.
  - (b) Describe the ultrastructure and functions of Intermediate Filaments.

- 4** Answer the following : **7×2=14**
- (a) Describe the ultrastructure and functions of Ventrioles.
  - (b) Give a detailed account of Apoptosis-Inducing Factor (AIF)

- 5** Answer the following any **two** : **7×2=14**
- (a) Notes on Nucleolus as a site of RNA Synthesis.
  - (b) Write a note on the evolutionary significance of mitochondria.
  - (c) Give a detailed account of Na<sup>+</sup>,K<sup>+</sup> channel
  - (d) 'More than one response can result from the reception of a single ligand', - Explain

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