

No. of Printed Pages : 03

Roll No.

AA-331

M. Sc. EXAMINATION, Dec. 2018

(First Semester)

(Re-appear Only)

BIOTECHNOLOGY

BT-501-MS

Cell And Molecular Biology

Time : 3 Hours]

[Maximum Marks : 100

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt any *Five* questions. All questions carry equal marks.

1. (a) Describe the changes/modification of proteins takes place in golgi body with suitable diagrams. **10**

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- (b) Explain $\text{Na}^+\text{-K}^-$ pump in details for transport of molecule. **10**
2. (a) How transportation of Protein in and out of Nucleus takes place ? **10**
- (b) How protein synthesis takes place in Palade particles ? **10**
3. Explain the process of cell-cycle regulation in details. How cyclin molecule plays a role during the process ? **20**
4. Explain the following briefly : **5×4=20**
- (a) Integrins
- (b) Anaphase
- (c) G-Protein Signaling
- (d) Symport and Antiport.
5. (a) Discuss the repair mechanism that acts on thymine dimer and mismatch in a genome. **10**
- (b) Explain negative and positive super coiling in details. **10**
6. (a) How does reassociation kinetics helps in understanding complexity of genome. **10**
- (b) Discuss different types of DNA polymerase and their functions in detail. **10**
7. Discuss post translational change in a protein with suitable diagram. **20**
8. Explain the following : **5×4=20**
- (a) Arb Operon
- (b) Promoter
- (c) Wobble Position
- (d) RBS.