TB165465E

Reg. No :.....

Name :.....

B. Sc. DEGREE (C.B.C.S.S) EXAMINATION, OCTOBER 2018

(2016 Admission Regular & 2015 Admission Supplementary)

SEMESTER V - CORE COURSE (ZOOLOGY)

ZY5B05TB - CELL AND MOLECULAR BIOLOGY

Time : 3 hrs Hours

Maximum Marks : 60

Part A

I. Answer all questions. Each question carries 1 marks (5x1=5)

1. Comment on Balbiani rings.
2. Write a note on Virion.
3. What are cytokines?
4. What are promoters?
5. What is one gene-one enzyme hypothesis?

Part B

II. Answer any Five questions. Each question carries 2 marks (5x2=10)

6. What are the functions of Golgi Complex?
7. Briefly describe Fluid mosaic model.
8. Write the difference between microfilaments and intermediate filaments.
9. Distinguish between Heterochromatin and Euchromatin.
10. What is the role of cyclic AMP in cell signalling?
11. What are Overlapping genes?
12. Describe the functions of different types of RNA.
13. Explain Operon concept

Part C

III. Answer any Five questions. Each question carries 5 marks (5x5=25)

14. Briefly describe the functions of Endoplasmic reticulum.
15. Briefly explain Nuclear membrane pore complex.
16. Describe structure and functions of Golgi complex .
17. Describe the arrangement of microtubules in cilia and flagella.
18. Give an account on Signalling molecules.
19. Explain Hershey Chase Experiment of Bacteriophage infection.
20. Briefly explain Transcription in Prokaryotes.
21. Describe Griffith's transformation experiments.

Part D

IV. Answer any Two questions. Each question carries 10 marks (2x10=20)

22. Describe Prophase I of Meiosis.
23. Describe the fluid mosaic model of plasma membrane and cell permeability.
24. Describe eukaryotic gene regulation.
25. Briefly describe Prokaryotic gene regulation.