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G – 4089

Reg. No. : .....

Name : .....

Fourth Semester B.Sc. Degree Examination, July 2019

First Degree Programme under CBCSS

Zoology

Core Course – IV

ZO 1441 : CELL BIOLOGY

(2015 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

I. Answer the following questions (In one or two sentences. 1 mark each)

1. Centromere
2. Hetero Chromatin
3. Unit Membrane
4. Tumour Suppressor Gene
5. Nucleoid
6. Sarcoplasmic Reticulum
7. Kinetochore
8. Residual Bodies
9. Metastasis
10. Polysomes

(10 × 1 = 10 Marks)

P.T.O.

II. Answer any **eight** of the following (Not to exceed one paragraph. Each carries **2** marks)

11. Write on Nucleolus
12. Name the major enzymes of Lysosome
13. Solenoid Structure
14. Functions of SER
15. Basal Bodies
16. Types of Signals
17. Nuclear Lamina
18. Acrocentric Chromosome
19. Super Oxide Dismutase
20. Centrioles
21. Glycocalyx
22. Microbodies

**(8 × 2 = 16 Marks)**

III. Answer any **six** of the following (Not to exceed **120** words. Each carries **4** marks)

23. Explain the ultrastructure of Mitochondria.
24. Write on Synaptonemal Complex.
25. Outline the structure and functions of ER.
26. Explain the polymorphism of lysosomes.

27. Write on the formation of Nuclear Envelop.
28. Write down the theories of carcinogenesis.
29. Trace the events during Meiosis I.
30. Explain Cytoskeleton.
31. What are the characteristics of polytene chromosomes?

(6 × 4 = 24 Marks)

IV. Answer any **two** of the following (Each carries **15** marks)

32. Give a detailed account on structure and functions of Mitochondria.
33. Explain the mechanisms of transport across plasma membrane.
34. Write in detail about Giant Chromosomes.
35. Write an essay on Aging.

(2 × 15 = 30 Marks)