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Reg. No.....

Name.....

M.Sc. DEGREE (C.S.S.) EXAMINATION, NOVEMBER 2019

Third Semester

Faculty of Science

Branch VIII : Zoology

ZY3CT12—CELL AND MOLECULAR BIOLOGY

(2012—2018 Admissions)

Time : Three Hours

Maximum Weight : 30

Section I (Short Answer Type Questions)

Answer any **ten** *out of twelve.*
Each question carries a weight of 1.

Comment the following :

1. cAMP.
2. Ribo switches.
3. Central dogma of molecular biology.
4. Role of cholesterol in plasma membrane.
5. Endocytosis.
6. RNAi.
7. Signal hypothesis.
8. Tumour suppressor gene.
9. Electron transport chain.
10. Microtubules.
11. Gene therapy.
12. Desmosomes.

(10 × 1 = 10)

Section II (Short Essay Type Questions)

Answer any **five** *out of eight.*
Each question carries a weight of 2.

13. Elucidate the functions of Golgi complex.
14. Explain the checkpoints in cell cycle.

Turn over

15. Briefly describe different types of Cancer.
16. Give an account of translation in Eukaryotes.
17. Describe Extracellular matrix.
18. Explain the dynamic nature of plasma membrane.
19. Differentiate the extrinsic and intrinsic pathways of apoptosis.
20. Explain transcription factor and its function.

(5 × 2 = 10)

Section III (Long Essay Type Questions)

Answer any **two** *out of three.*
Each question carries a weight of 5.

21. Explain the types of cell junctions.
22. Differentiate gene regulation strategies in Prokaryotes and Eukaryotes.
23. Describe a signalling pathway that regulate calcium signalling. Add a note on regulation of signalling pathways.

(2 × 5 = 10)