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Reg. No.....

Name.....

M.Sc. DEGREE (C.S.S.) EXAMINATION, JANUARY 2024

Third Semester

Faculty of Science

Branch VIII—Zoology

ZY 3CT12—CELL AND MOLECULAR BIOLOGY

[2018 Admissions—Supplementary/2017, 2016 and 2015 Admissions—Mercy Chance]

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 on the following :

1. Cadherins.
2. Facilitated diffusion.
3. Glyoxysomes.
4. G-Protein coupled receptors.
5. Cyclic AMP.
6. Microtubules.
7. RNA interference (RNAi).
8. Membrane potentials.
9. Immunotherapy.
10. Signal hypothesis.
11. Riboswitches.
12. Catabolite repression.

(10 × 1 = 10)

Turn over

Section II (Short Essay Type Questions)

Answer any **five** *out of eight.*
2 weight each.

Write short essays on :

13. JAK-STAT pathway.
14. Post transcriptional modifications.
15. Structure and functions of Golgi complex.
16. G-protein coupled receptors.
17. Control of cell division and cell growth.
18. New strategies for combating cancer.
19. Transcription in prokaryotes.
20. Trp operon in E.coli.

(5 × 2 = 10)

Section III (Long Essay Type Questions)

Answer any **two** *out of three.*
5 weight each.

Write long essays on :

21. Basic properties, types, causes and genetics of cancer.
22. Structure, chemistry and functions of Chloroplast.
23. Translation in prokaryotes and eukaryotes.

(2 × 5 = 10)