24000344

Reg. No.....

Name.....

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

Third Semester

Faculty of Science

Branch VIII—Zoology

ZY 3C T13—MICROBIOLOGY AND BIOTECHNOLOGY

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

Time : Three Hours Maximum Weight : 30

Section A (Short Answer Type Questions)

Answer any **ten** *out of twelve.*
Weight 1 *each.*

1. The endomembrane system.
2. Flagella and motility.
3. Chemosynthesis.
4. Mutualism between microbes.
5. Downstream processing.
6. Bio-terrorism.
7. Electroporation.
8. DNA Vaccines.
9. Nosocomial infections.
10. Biosensors
11. Biosafety concepts and issues.
12. Bio-ethics.

$(10 \times 1 = 10)$

Turn over

Section B (Short Essay Type Questions)

Answer any **five** *out of eight.*

Weight 2 *each.*

13. Cytoskeleton and cytoplasmic inclusions.
14. Gram positive cell wall.
15. Glycolysis.
16. Reproduction and Exponential growth.
17. Transfection Methods.
18. Cryopreservation.
19. Types of Patents.
20. Biofucls.

(5 × 2 = 10)

Section C (Long Essay Type Questions)

Answer any **two** *out of three.*

Weight 5 *each.*

21. Contributions of Scientists to the field of Microbiology.
22. Microbial enzymes and bio-transformation.
23. Blotting techniques- Southern, Northern, Western, Dot Blot.

(2 × 5 = 10)