

C 42084

(Pages : 2)

Name.....

Reg. No.....

**FOURTH SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, APRIL 2023**

(CBCSS)

Zoology

ZOL 4C 10—BIOTECHNOLOGY AND MICROBIOLOGY

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

I. Answer any *four* of the following. Short Answer Type Questions. Weightage 2 :

- 1 Define Plasmid.
- 2 Define transposon and its types.
- 3 What is Minisatellite ?
- 4 Define gene therapy.
- 5 What is Micropropagation ? Give some applications.
- 6 Define pure culture.
- 7 Differentiate homolactic and heterolactic fermentation.

(4 × 2 = 8 weightage)

II. Answer any *four* of the following. Short Essay Type Questions. Weightage 3 :

- 8 Give the difference between colony and plaque hybridization.
- 9 Give a brief note on principles, advantages and disadvantages of cDNA library.
- 10 Give a brief note on Maxam and Gilbert's method of DNA sequencing.
- 11 Give a brief account on steps involved in DNA fingerprinting and its applications.
- 12 Give the difference between patent and copyright.
- 13 Give a short essay on mode of action, application and disadvantages of the alcohol and aldehyde as a chemical disinfectant in microbial control.
- 14 Give a brief note on causes, symptoms and diagnosis of tuberculosis.

(4 × 3 = 12 weightage)

Turn over

III. Answer any *two* of the following. Long Essay Type Questions. Weightage 5 :

- 15 Describe in detail about the process of construction of cDNA library.
- 16 Describe in detail about the RNA interference.
- 17 Describe in detail about the culture media and its types.
- 18 Describe in detail about the biogas plant components, working and its applications.

(2 × 5 = 10 weightage)