

D 42581

(Pages : 2)

Name.....

Reg. No.....

FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, JUNE 2018

(CUCSS)

Zoology

ZO4 CT 10—BIOTECHNOLOGY AND MICROBIOLOGY

(2016 Admissions)

Time : Three Hours

Maximum : 36 Weightage

Part A

I. Write short notes on All the *fourteen* questions :

- 1 MAC.
- 2 Dot blot.
- 3 RAPD.
- 4 Taq DNA polymerase.
- 5 Cell lines.
- 6 Antisense RNA.
- 7 Biosensors.
- 8 Trademarks.
- 9 Koch's postulates.
- 10 Basis of phenetic classification.
- 11 Differential media.
- 12 Spread plate technique.
- 13 Pneumonia.
- 14 Microbial drug resistance.

(14 × 1 = 14 weightage)

Part B

II. Answer any *seven* of the following :

- 15 Role of microbes in the bioremediation of pollutants.
- 16 Give an account on physical disinfectants.
- 17 Explain the causes, symptoms and treatment of rabies.
- 18 Give an account on the structural properties of a typical virus.

Turn over

- 19 Explain bacterial growth curve.
- 20 With suitable examples, explain biopesticides and its advantages.
- 21 Discuss the advantages and disadvantages of cloning.
- 22 Give an account on various gene silencing techniques.
- 23 What are cloning vectors ? Explain the major types of plasmids used in recombinant DNA technology.
- 24 Explain the basic steps involved in PCR. Add a note on its applications.

(7 × 2 = 14 weightage)

Part C

III. Answer any *two* of the following :

- 25 Explain the various steps involved in recombinant DNA technology.
- 26 Give an account on various transfection methods. Add a note on transgenic animals.
- 27 With Suitable diagram describe the structure and function of a typical bacterial cell.
- 28 Explain the signs and symptoms, transmission and treatment of (i) Tetanus (ii) Cholera (iii) Leprosy and (iv) Pneumonia.

(2 × 4 = 8 weightage)