

**FIFTH SEMESTER (CBCSS-UG) DEGREE EXAMINATION
NOVEMBER 2022****Zoology****ZOL 5B 07T—BIOTECHNOLOGY, MICROBIOLOGY AND IMMUNOLOGY**

(2019 Admission onwards)

Time : Two Hours and a Half

Maximum : 80 Marks

Section A

I. Short answer questions. Each question carries 2 marks :

- 1 What is gonorrhoea ? Mention the causative organism ?
- 2 What is Bioremediation ?
- 3 Distinguish between lytic and lysogenic phages.
- 4 What are haptens ?
- 5 What are Mast cells and dendritic cells ?
- 6 What is meant by pluripotent stem cells ?
- 7 Comment on bacterial drug resistance.
- 8 How does cells transform to malignancy ?
- 9 What are interferons ?
- 10 Distinguish between YAC and BAC.
- 11 What is ultrasonication ?
- 12 What are endogenous antigens ?
- 13 What are adjuvants ? Explain Freund's adjuvant.
- 14 What is the role of liquid nitrogen in preservation ?
- 15 What is rheumatoid arthritis ?

(Ceiling : 25 marks)

Turn over

Section B

II. Paragraph questions. Each question carries 5 marks :

- 16 Distinguish between malaria and Kala azar.
- 17 What is recombinant insulin ?
- 18 What are the different types of bacterial cultures ?
- 19 Write an account on Grave's Disease.
- 20 What is the molecular diagnostic technique of Cystic fibrosis ? Explain.
- 21 Explain Di-George Syndrome.
- 22 Write notes on transplantation antigens ?
- 23 Give a brief account of any *two* viral diseases in human being.

(Ceiling : 35 marks)

Section C

III. Essay questions. Answer any *two* questions :

- 24 Explain the various steps in the construction of recombinant DNA.
- 25 Give an account of major lymphoid organs of man.
- 26 Write an essay on the application of Biotechnology in today's world.
- 27 Give an account of micro-organisms involved in industrial purposes.

(2 × 10 = 20 marks)