

D 24133

(2 pages)

Name.....

Reg. No.

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, FEBRUARY 2003

Microbiology

Paper I—GENERAL MICROBIOLOGY

Time : Three Hours

Maximum : 80 Marks

Section A

I. Write short paragraph on **any fifteen** : —

- 1 **Hyperthermophiles**.
- 2 Defined media.
- 3 **Volutin** granules.
- 4 **Magnetosomes**.
- 5 **rRNA** sequencing.
- 6 Potato-Dextrose agar.
- 7 CAM inoculation.
- 8 Delta **endotoxin**.
- 9 Heat resistance of bacterial **endospores**.
- 10 Fastidious organisms.
- 11 D value.
- 12 Super oxide.
- 13 **Turbidostat**.
- 14 **Porins**.
- 15 **Serotyping**.
- 16 **Prions**.
- 17 **Nif** genes.
- 18 Membrane filter count.
- 19 Facilitated diffusion.
- 20 **Transpeptidation**.

(15 x 2 = 30 marks)

Section B

II. Write briefly on any *four* :--

- 21 Bacterial photosynthesis.
- 22 **Plasmids**.
- 23 **Biosorption** of metals.
- 24 Mutant selection techniques.

Turn over

25 Cultivation of viruses in **embryonated** eggs.

26 **Adansonian** classification.

(4 x 5 = 20 **marks**)

Section C

III. Answer any *three* questions :—

27 Describe the anaerobic culture methods.

28 Describe the structure of a bacterial **endospore**. Describe different stages in **sporulation**.

29 Describe the various methods for the estimation of total count of bacteria.

30 Describe the DNA repair mechanisms.

31 What are the different **mutagens** ? Describe the mechanisms of their action.

(3 x 10 = 30 marks)