

**SECOND SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2014**

(UG—CCSS)

**Core Course—Biotechnology****BT 2B 01—GENERAL MICROBIOLOGY**

Time : Three Hours

Maximum : 30 Weightage

I. Objective type questions. Answer **all** questions :

A. Multiple Choice :

1 Acid fast staining is used to stain :

- (a) ~~Corynebacterium.~~ (b) ~~E.coli.~~  
(c) ~~Mycoplasma.~~ (d) ~~Actinomyces.~~

2 Serum can be sterilized by :

- (a) Autoclaving. (b) ~~Tyndallization.~~  
(c) Pasteurization. (d) ~~Filtration.~~

3 Which among the following is an enriched medium :

- (a) Nutrient agar. (b) **Blood agar.**  
(c) Potato dextrose agar. (d) LB agar.

4 Which one is a **spirochete** :

- (a) ~~Borrelia.~~ (b) ~~Vibrio.~~  
(c) ~~Nocardia.~~ (d) ~~Pseudomonas.~~

B. Fill in the blanks :

5 Microscope was invented by \_\_\_\_\_

6 Undefined media are called \_\_\_\_\_

7 Presence of bacterial capsule is demonstrated by \_\_\_\_\_ technique.

8 The site of action of **penicillin** is \_\_\_\_\_

C. Answer in one word

9 The bacterium which is used as **biopesticide**.10 The common media used for **fungal** cultivation.11 **E.coli** phages are known as.

12 The organisms which are reduced inorganic substances as their electron source are known as.

(12 x  $\frac{1}{4}$  = 3 weightage)**Turn over**

II. Short Answer type questions. Answer all *nine* questions :

- |                         |                          |
|-------------------------|--------------------------|
| 13 Dimorphism.          | 14 Potato dextrose agar. |
| 15 Nucleocapsid.        | 16 L-form.               |
| 17 McIntosh Fildes Jar. | 18 Capsule.              |
| 19 Psychrophiles.       | 20 Cold sterilization.   |
| 21 Group translocation. |                          |

(9 x 1 = 9 weightage)

III. Short Essay or Paragraph Questions. Answer any *five* questions :

- 22 Gram staining procedure and principle.
- 23 Electron transport chain.
- 24 Explain Embden Meyerhof pathway.
- 25 Methods used for microbial growth measurement.
- 26 Mycotoxins.
- 27 Enumeration and cultivators of viruses.
- 28 Typhoid fever.

(5 x 2 = 10 weightage)

IV. Essay questions. Answer any *two* questions. Explain the following :

- 29 Nutritional classes and nutritional grouping of bacteria
- 30 Describe factors influencing microbial growth.
- 31 Describe the ultrastructure of bacteria.

(2 x 4 = 8 weightage)