

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 9590

Roll No.

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B.Tech.

(SEMESTER-III) THEORY EXAMINATION, 2012-13

MICRO BIOLOGY & CELL BIOLOGY

Time : 3 Hours]

[Total Marks : 100

Section – A

1. Attend **all** the questions : **2 × 10 = 20**
- What is antiseptic ? How is it different from disinfectant ?
 - Write a note on differential media.
 - What is Batch culture ? Name different phases of batch culture.
 - What do you mean by Pathogenecity ?
 - Name the causative microbial agents of the following diseases : Rabies and Tuberculosis.
 - What are Biofertilizers ? Write their two advantages over chemical fertilizers.
 - What is bioaugmentation ?
 - What are hyperthermophiles ? Give two examples.
 - Give two differences between Fimbriae and Pilli.
 - Draw the structure of chlorophyll.

Section – B

Note : Attempt any three parts :

3 × 10 = 30

2. (a) Write short notes on :
- Methanogens
 - Halobacteria
- (b) Write a note on the chemical methods of the control of microorganisms.
- (c) What is Symbiotic nitrogen fixation ? Explain.
- (d) Write briefly on cancer, its causes and types.
- (e) Describe the process of domestic waste water treatment by microbes.

Section – C

Note : Attempt any **four** questions :

4 × 12½ = 50

3. Write short note on any **one** of the following :
 - (a) Tuberculosis
 - (b) Amoebiosis

 4. Define Growth. Graphically, present the four phases of bacterial growth and discuss any three factors which affect the growth of bacteria.

 5. What is protein targeting ? Explain.

 6. Write briefly on Bioremediation. Explain why is it preferred over physical and chemical methods of environmental cleanup.

 7. Write a note on Photophosphorylation.
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