

(20518)

Roll No.

B. Sc. (Micro)-I Year

3484

B. Sc. (Microbiology) Examination, May 2018

FUNDAMENTAL OF MICROBIOLOGY

(B-101)

Time : Three Hours]

[Maximum Marks : 50

Note : Answer any *Five* questions. All questions carry equal marks.

- ✓ 1. Describe the various culture techniques in Microbiology used for bacterial and fungal cultures. 10
2. How do virus differ from other microorganisms ?
Discuss in detail the morphology of viruses. 10

(2)

3. What is the role of Microbiology in industries ? How are microbes beneficial in genetic engineering ? 10
4. Write the general characteristics of the following : 5×2
(a) Fungi
(b) Archaea.
5. Who gave the germ theory of fermentation ? Discuss the theory and its significance. 10
6. What is a bioreactor ? How are they classified ? Discuss the types of bioreactors. 10
7. Discuss the anabolic and catabolic processes in microbes with special reference to bacterial physiology. 10
8. State differences between the following : 2×5
(a) Innate and Adaptive immunity
(b) Fungi and Protozoan

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Lactic acid
Alcohol

(3)

- (c) Ribonucleic acid and Deoxy ribonucleic acid
(d) Whittaker's concept and Carl Woose's concept
(e) Spread plate culture and Pour plate culture.
9. Discuss in brief the history of Microbiology with special emphasis on the work of the following : 10
(a) Anton Van Leeuwenhock
(b) Francesco Redi
(c) Alexander Fleming
(d) Paul Ehrlich.
10. Bacterial Genetics studies the mechanisms of their heritable information. Discuss. 10

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