

S.No. 56

12PBTZ01

(For the candidates admitted from 2012-2013 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

First Semester

Biotechnology

MICROBIOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) Compare bright field microscope and dark field microscope.
Or
(b) Explain the principle and protocol of simple staining.
2. (a) Explain the process involved in culture collections.
Or
(b) Explain the bacterial growth by turbidity method.

3. (a) Explain the role of Microorganism in food industry.

Or

(b) Explain the role of microorganism in the field of agriculture.

4. (a) Explain the cause, symptoms and prevention of malaria.

Or

(b) Write short notes on Antiparasitic agents.

5. (a) Explain the genetic analysis of yeast.

Or

(b) What is Mutagen? Explain the actions of chemical mutagen.

SECTION B — (5 × 10 = 50 marks)

Answer ALL questions.

6. (a) Explain the principle involved in transmission electron microscope.

Or

(b) What is sterilization? Explain various sterilization techniques.

7. (a) What is microbial growth? Explain the growth curve of bacteria with neat diagram.

Or

(b) What is a pure culture? Explain the technique involved in obtaining a pure culture.

8. (a) Describe the nutritional requirements of bacteria.

Or

(b) Explain isolation and characterization of Sulfate oxidizing bacteria.

9. (a) Describe the sign, symptoms, infection and control measures of AIDS.

Or

(b) Explain the host - parasite relationship with example.

10. (a) Explain the lytic and lysogenic life cycle.

Or

(b) Discuss in detail about gene mutation and types.