

S.No. 1991

12UMB03

(For the candidates admitted from 2012-2013 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

Third Semester

Microbiology

MICROBIAL GENETICS

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. tRNA.
2. Z-DNA.
3. Ligase.
4. Primer.
5. Hogness Box.
6. Intron.
7. Plasmid.

8. Sexduction.
9. Photoreactivation.
10. Hot spots.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain the structure of the DNA.
Or
(b) Write a note on the RNA as genetic material.
12. (a) Explain the experimental proof of Replication.
Or
(b) Explain the role of enzymes involved in replication.
13. (a) Explain Prokaryotic Transcription.
Or
(b) Explain the characteristics of Genetic code.
14. (a) Explain mechanism of Conjugation.
Or
(b) Write a note on Transduction.

15. (a) Explain the detection of mutants.

Or

- (b) Explain the types of Mutation.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE out of Five.

16. Explain the RNA and its types in detail.
17. Explain Linear Replication in detail.
18. Explain Protein Synthesis in detail.
19. Explain Gene transfer mechanism by transformation.
20. Explain DNA repair mechanisms.