

APRIL/MAY 2019

BMB41 — MICROBIAL GENETICS

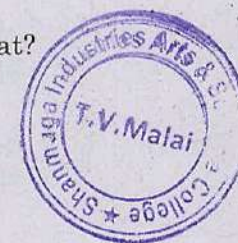
Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Comment on B- DNA.
2. Amber, Ochre and Cpal stands for what?
3. Define leading & lagging strand.
4. Comment on action on DNA ligase.
5. Define Hfr cells.
6. Comment on transduction.
7. What do you understand about immortalization?
8. Define Mutation.
9. Give any two examples of DNA modifying mutagens.
10. Define catabolite repression.



SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Briefly explain the discovery of DNA and its significance.

Or

- (b) Write the salient features of double standard DNA.

12. (a) Explain the organization of prokaryotic genome

Or

- (b) Write an account on bacterial plasmids.

13. (a) Briefly explain generalized transduction with neat flow chart.

Or

- (a) Explain how bacterial transformation is occurring in nature

14. (a) Briefly explain cancer mutation and its significance.

Or

- (b) Describe the importance of retroviral oncogenes in Cancer science.

15. (a) Write an account on the lac operon with illustrations.

Or

- (b) Write short account on the DNA repair mechanisms.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions

16. Elaborately describe the salient features of genetic code with appropriate examples.

17. Discuss elaborately on the replication of prokaryotic and eukaryotic DNA.

18. Describe the method of bacterial conjugation with appropriate diagram.

19. Elaborate the types of mutation and their significance.

20. Discuss elaborately on the protein synthesis in prokaryotes with illustrations.

