

APRIL 2018

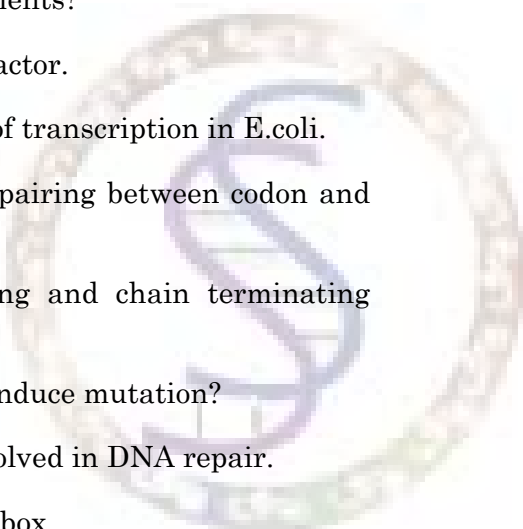
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Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. Brief note on TMV.
 2. Define gene.
 3. What is Plasmid DNA? Give its example.
 4. Mention the inhibitors of replication.
 5. What are okazaki fragments?
 6. Give the role of sigma factor.
 7. Name the terminators of transcription in E.coli.
 8. Draw the wobble base pairing between codon and anticodon.
 9. List the chain initiating and chain terminating codons.
 10. How does nitrous acid induce mutation?
 11. Name two enzymes involved in DNA repair.
 12. Give a note on pribnow box.
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PART B — (5 × 5 = 25 marks)

Answer any FIVE questions.

13. What are the significance of Hershey and Chase experiment?
14. Explain rolling circle model of replication.
15. Write short notes on prokaryotic RNA polymerase.
16. What are the basic characteristics of genetic code?
17. Write about transition and transversion mutation.
18. Describe the inhibitors of protein biosynthesis.
19. Give a note on DNA damage.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

(Each question carries 10 Marks)

20. Discuss the experimental evidence to show DNA as the genetic material using Griffith.
21. Write a detailed note on enzymes involved in DNA replication.

22. Describe the initiation, elongation and termination process of transcription in prokaryotes.
 23. Explain the mechanism of photoreactivation and excision repair.
 24. Illustrate translation in prokaryotes.
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