

QP CODE: 22100990



Reg No :

Name :

B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, APRIL 2022

Sixth Semester

CORE - BO6CRT10 - CELL AND MOLECULAR BIOLOGY

Common for B.Sc Botany Model I, B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II Environmental Monitoring And Management, B.Sc Botany Model II Horticulture and Nursery Management & B.Sc Botany Model II Plant Biotechnology

2017 Admission Onwards

BE0CE9F6

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Name the microbody which is involved in photorespiration.
2. What is telomere?
3. Define C-value.
4. Write notes on the S phase of cell division.
5. Name the substages of Prophase I of Meiosis.
6. What is reverse tandem duplication?
7. Define point mutations.
8. What are purines?
9. Name the pyrimidine bases in RNA.
10. Name the enzyme which joins okazaki fragments.
11. Who proposed the term gene?
12. What is one gene one polypeptide hypothesis?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*





13. Describe the ultrastructure of nucleus .
14. Write brief notes on B Chromosomes.
15. List the differences between mitosis and meiosis.
16. What are the characteristic features of Klinefelter's syndrome?
17. Describe Hershey-Chase experiment.
18. Briefly explain the steps of semiconservative replication.
19. Write a note on enzymes involved in the transcription of prokaryotes.
20. Give an account on different genes in an operon.
21. Give an account on tumour suppressor genes.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Give a detailed account on chromosome structure and function.
23. What is polyploidy? Discuss the different types of polyploidy.
24. What is genetic code? Explain its features.
25. Explain why lac operon is called as inducible operon?

(2×10=20)

