

C 20653

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Name.....

Reg. No.....

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2022

(CBCSS—UG)

Microbiology

MBG 6B 10—GENETICS AND GENETICS ENGINEERING

(2019 Admissions)

Time : Two Hours and a Half

Maximum : 80 Marks

Section A*Answer at least ten questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 30.*

1. What is annealing ?
2. What are primers ?
3. Chloroplast DNA.
4. What is a test cross ?
5. What are the characters of sex linked inheritance ?
6. What is a lysogen ?
7. What is epistasis ?
8. What is HFr conjugation ?
9. What is 'coincidence' in genetics ?
10. What is denaturation of DNA ?
11. What is cytoplasmic inheritance ?
12. What is polyploidy ?
13. State Law of segregation.
14. F plasmids.
15. Monohybrid cross.

(10 × 3 = 30 marks)

Turn over

Section B

*Answer at least **five** questions.*

Each question carries 6 marks.

All questions can be attended.

Overall Ceiling 30.

16. Write on linkage mapping.
17. Write on various gene transfer techniques in Eukaryotes.
18. Write on GM foods.
19. Write on different cell cycle check points and its significance.
20. Write on monohybrid cross and its importance.
21. Write on gene sequencing methods.
22. Explain conjugation in bacteria.
23. Vectors in rDNA technology.

(5 × 6 = 30 marks)

Section C

*Answer any **two** questions.*

Each question carries 10 marks.

24. Briefly outline the techniques in chromosome mapping.
25. Write on sex linkage and sex linked inheritance with suitable examples.
26. Write an essay on different DNA sequencing techniques.
27. Explain principles of inheritance with the Mendelian experiments.

(2 × 10 = 20 marks)