Register Number :
Date : 25-11-2020

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BENGALURU-27
B.Sc. – V SEMESTER
SEMESTER EXAMINATION: NOVEMBER 2020
BO 5218 :MOLECULAR BIOLOGY AND PLANT BIOTECHNOLOGY

Time- 2 ½ hrs Max Marks-70

This paper contains ONE printed page and THREE parts
Draw diagrams and write examples where necessary

A. Define any TEN of the following in two or three sentences 10 × 2 = 20

1. Nucleoside and nucleotide
2. Outcome of Hershey Chase experiment
3. Wobble hypothesis
4. Lac operon
5. Okazaki fragments
6. Dideoxyribonucleotides
7. Principle of agarose gel electrophoresis
8. Blunt and staggered ends
9. Synthetic seeds
10. RIPs
11. Proline
12. Biohazard

B. Write critical notes on any FIVE of the following 5 × 6 = 30

13. t-RNA structure and function
14. pCambia
15. Objectives, requirements and steps involved in PCR
16. Edible vaccines
17. RNA interference technology with a suitable example
18. Biological nitrogen fixation in non-legumes
19. IPR and its significance

C. Give a comprehensive account of any TWO of the following 2 × 10 = 20

20. Steps involved in *Agrobacterium* mediated transformation
21. Production of genetically engineered Cotton for insect resistance
22. Mechanism of translation in prokaryotes