

Date:

Registration number:

ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-27

B.Sc Botany - V SEMESTER

SEMESTER EXAMINATION: OCTOBER 2021

(Examination conducted in January-March 2022)

**BO 5218: Molecular Biology and Plant Biotechnology**

**Time: 2½ hrs Max. Marks: 70**

This paper contains ONE printed page and THREE parts

Draw diagrams and write examples wherever necessary

**A. Answer any TEN of the following: 2x10=20**

1. IPR
2. Drought avoidance
3. Central Dogma
4. Ligases
5. Bioremediation
6. Conclusion of Meselson and Stahl’s experiment
7. Okazaki fragment
8. LEA proteins
9. Forward and Reverse primer in PCR
10. Plant alkaloids
11. Biohazard
12. Expand dGMP and mention bond linkage within it

**B. Write critical notes on any FIVE of the following: 5x6=30**

1. Sanger’s method of DNA sequencing
2. Biological Nitrogen Fixation in non-legumes
3. pCambia: Structure and its mechanism
4. Lac operon
5. Germplasm: In situ conservation
6. Production of disease resistant plants
7. Structure and function of tRNA

**C. Give a comprehensive account of any TWO of the following 2x10=20**

20. Transcription and Translation mechanism in prokaryotes

21. Bt cotton: Production and drawbacks

22. Floral dip method