

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BENGALURU

MID-SEMESTER EXAMINATION- AUGUST 2019

B. Sc. BOTANY- V SEMESTER

BO 5215: Molecular Biology and Plant Biotechnology

Time: 1 hour

Max. Marks: 30

This paper contains ONE printed page and TWO parts
Draw labelled diagrams wherever necessary with examples.

A. Answer any NINE of the following

9X2=18

1. Nomenclature of restriction endonucleases
2. Insertional inactivation
3. Expand dTMP and mention the bond linkages within it
4. Contribution of Fredrich Miescher to molecular biology
5. DNA ligase
6. Basic characteristics of a vector
7. dfr gene in Petunia
8. pro-vitamin A in Golden rice
9. Heat killed S strain+ live R strain when injected to mouse, results in the death of mouse. Give reasons.
10. Roger Kornberg
11. CRY proteins in Bt cotton
12. psy gene in Golden rice

B. Write short notes on any TWO of the following

2X6=12

13. Give a detailed account of Watson and Crick model of DNA.
14. Explain RNAi technology with an example
15. Mention the requirements of PCR and explain in detail various steps of PCR