



REG NO:

DATE: 21-11-2020

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE-27
M.Sc. BOTANY - IV SEMESTER
SEMESTER EXAMINATION: NOVEMBER 2020
BODE 9318 – ADVANCED PHYSIOLOGY

Time- 2 1/2 hrs

Max Marks-70

This paper contains one printed page and three parts
Draw diagrams wherever necessary

A. Answer ANY TEN of the following in two to three sentences

10X2=20

1. SOS genes
2. Ice nucleation
3. Flavoproteins
4. Superoxide dismutase
5. Prosystemin
6. STAT
7. Phosphodiesterase
8. Cyanogenic glycosides
9. Pr&Pfr
10. Photomorphogenesis
11. Anaerobiosis
12. Osmoprotectant

B. Write critical notes on ANY FIVE of the following

5X6=30

13. Non-enzymatic component of oxidative stress
14. Effect of fungal infection on plant metabolism
15. Physiological effects of salinity stress
16. Mechanism of action of phenolic compounds
17. Schematic representation of Calcium calmodulin signaling pathway
18. Structure and biochemical properties of phytochrome
19. Effects of drought stress in plants

C. Give a comprehensive account of ANY TWO of the following

2X10=20

20. Heat stress
21. Biosynthesis of terpenes and their role in plant defense
22. Signaling of plant stomatal movements

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