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Register Number :

Date :

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

**M.Sc. – II SEMESTER**

**SEMESTER EXAMINATION: APRIL 2019**

**BO 8318 : PLANT PHYSIOLOGY AND METABOLISM**

**Time: 2 ½ Hours Max. Marks.70**

**A. Define/Explain briefly any TEN (10) of the following 10 x 2=20**

1. Aquaporins
2. β- oxidation
3. Second law of thermodynamics
4. Isozyme
5. CAM
6. Guttation
7. Accessory photosynthetic pigments
8. Substate level phosphorylation
9. Leg haemoglobin
10. Bolting
11. ATP Synthase
12. Pulsation theory

 **B. Write short notes on any FIVE (5) of the following 5 x 6 =30**

1. Transpiration and its types
2. Allosteric enzymes
3. Kranz Anatomy with diagram
4. Glycolysis
5. Glyoxylate pathway
6. Nitrogenase-structure and mechanism of action
7. Pentose phosphate pathway

 **C. Answer Any TWO (2) of the following in detail 2 x 10 = 20**

1. Calvin (C3) cycle and its significance
2. Factors affecting enzyme kinetics
3. Biosynthesis and physiological effects of auxins

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