

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018  
(Fourth Semester)

Branch -BOTANY

PLANT PHYSIOLOGY & BIOCHEMISTRY

Time: Three Hours

Maximum: 75 Marks

SECTION -A (30 Marks)

Answer ALL questions

ALL questions earn EQUAL Marks ( 5 x 6 = 30)

- 1 a Comment on stomata! movement.  
OR  
b Discuss about Circadian Rhythm and Biological Clock.
- 2 a Give an account on factors affecting enzyme action.  
OR  
b Explain the procedure to isolate and purify the enzymes.
- 3 a Explain the factors affecting respiration.  
OR  
b Explain the Pentose Phosphate pathway.
- 4 a Compare and contrast cyclic and non-cyclic photophosphorylations.  
OR  
b Explain the factors affecting photosynthesis.
- 5 a Write brief account on nitrogen fixation.  
OR  
b Write a note on seed germination and seed dormancy.

SECTION -B (45 Marks)

Answer any THREE questions

ALL questions carry EQUAL Marks ( 3 x 15 = 45)

- 6 Write brief account on the following:  
(i) Ascent of Sap (ii) Photoperiodism (iii) Vernalization
- 7 Write an essay on the classification, structure, properties and mechanism of action of enzymes.
- 8 Outline and explain the TCA cycle.
- 9 Discuss the reactions of C<sub>3</sub> cycle.
- 10 Write essay on stress physiology.

**Z-Z-Z**

**END**