

**PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)  
BSc DEGREE EXAMINATION MAY 2017  
(Sixth Semester)**

Branch- **BOTANY**

**PLANT METABOLISM**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks ( 10 x 2 = 20)

- 1 Define co enzymes.
- 2 Write about prosthetic group.
- 3 What is fluorescence?
- 4 Comment on red drop.
- 5 Explain Rubisco.
- 6 Define Kranz anatomy.
- 7 Expand ATP and NADP.
- 8 Define fermentation.
- 9 Define nitrification.
- 10 Comment on molecular nitrogen.

**SECTION - B (25 Marks) «**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks ( 5 x 5 = 25)

- 11 a List out the properties of enzymes.  
**OR**  
b Explain the factors affecting enzyme action. .
- 12 a Give an account on photosynthetic pigments.  
**OR**  
b Critically comment on absorption spectrum.
- 13 a Bring out the non-cyclic electron transport of light reaction.  
**OR**  
b Write an account on CAM pathway.
- 14 a Enumerate the factors affecting respiration.  
**OR**  
b Explain about oxidative phosphorylation.
- 15 a Explain the process of transamination.  
**OR**  
b Explain how the nitrites reduced in plant tissues?

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

**ALL** Questions Carry **EQUAL** Marks ( 3 x 10 = 30)

- 16 Write an essay on classification and nomenclature of enzymes.
- 17 Describe the two photosystems.
- 18 Compare the C<sub>3</sub> and C<sub>4</sub> cycles.
- 19 Illustrate the EMP pathway.
- 20 Explain symbiotic mode of nitrogen fixation.

**Z-Z-Z**

**END**