

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2019
(Sixth Semester)

Branch - **BIOCHEMISTRY**

PLANT BIOCHEMISTRY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks!)

Answer **ALL** questions

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

- 1 What is Photophosphorylation?
- 2 Define photosynthesis.
- 3 Define photorespirations.
- 4 What is CAM plants?
- 5 What is nitrification?
- 6 Give an example for denitrification bacteria.
- 7 Which plant growth hormone delay the leaf senescence?
- 8 Mention the biological role of auxin.
- 9 List out the names of germination promoters.
- 10 What are the methods of breaking dormancy?

SECTION - B (25 Marks!)

Answer **ALL** Questions

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

- 11 a Write a note on pigments involved in photosynthesis.
OR
b Describe Hill's reaction & Emerson effect.
- 12 a Explain CAM pathway.
OR
b Discuss briefly about the synthesis and degradation of starch.
- 13 a What is nitrogen fixation? Give an account of symbiotic nitrogen fixation in plants.
OR
b Discuss in detail about the assimilation of sulphur.
- 14 a Explain the functions of auxin.
OR
b Describe the synthesis of ethylene.
- 15 a Explain the biochemical changes during germinations of seeds.
OR
b Explain the glyoxylate cycle.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 What is ETC? Explain the mechanism of ATP formation.
- 17 Give a detailed account on Calvin cycle.
- 18 Discuss in detail about nitrogenase enzyme and biochemistry of nitrogen fixation.
- 19 Explain the synthesis and physiological role of cytokinins.