

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018  
(Second Semester)

Branch – BIOCHEMISTRY

ADVANCED PLANT BIOCHEMISTRY

Time: Three Hours

Maximum: 75 Marks

SECTION -A (30 Marks)

Answer ALL questions

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

- 1 a Explain photosynthetic pigments with its structure.  
OR  
b Explain non cyclic photophosphorylation.
- 2 a Illustrate the biosynthesis of ethylene.  
OR  
b Discuss the chemistry and biological functions of jasmonic acid.
- 3 a Explain the regulation of nitrogen assimilation by GOGAT pathway.  
OR  
b Exemplify the biochemistry of nitrogen fixation.
- 4 a Write a note on R gene mediated disease resistance.  
OR  
b Describe the types of plant defensive mechanism.
- 5 a Explain the protein transport into plastids.  
OR  
b Elucidate the structure and composition of mitochondrial DNA.

SECTION -B (45 Marks)

Answer any THREE questions

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

- 6 Elaborate on C4 cycle with its significance.
- 7 Give an account on the biosynthesis and functions of flavonoids.
- 8 Describe the sulphur metabolism with its economic importance.
- 9 Explain in detail on chemical weapons of pathogens in plants.
- 10 Illustrate the protein transport into mitochondria with its mechanism.