

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 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-enzyme.
- 2 Explain free energy.
- 3 Brief about phosphorescence.
- 4 Define Photon.
- 5 What mean by Photo Phosphorylation?
- 6 Write any two electron conductive proteins.
- 7 Define Energy currency.
- 8 Which are known as Respiratory substances?
- 9 Explain Symbiotic Nitrogen Fixation.
- 10 Denitrification.

SECTION - B (25 Marks)

Answer **ALL** Questions

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

- 11 a Detail the nomenclature of enzymes.
OR
b Explain the lock and key model of enzyme action.
- 12 a Illustrate the Solar Spectrum.
OR
b Detail the Hill's reaction.
- 13 a Explain cyclic electron transport in photosynthesis.
OR
b List out the factors affecting photosynthesis.
- 14 a Draw the Electron transport chain in respiration.
OR
b Explain the structure of ATP.
- 15 a Enumerate the sources of nitrogen to plants.
OR
b Explain the process of reductive amination.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 Describe Enthalpy and Entropy.
- 17 Explain the law of Thermodynamics.
- 18 Write an essay on Calvin cycle.
- 19 Describe the steps involved in Kreb's cycle.
- 20 Explain the beta oxidation of fat.

Z-Z-Z

END