



**JAZ-1603120602030300** Seat No. \_\_\_\_\_

**M. Sc. (Biochemistry) (Sem. III) (CBCS) Examination**

**December - 2019**

**EBC - 3 : Plant Biochemistry**

Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 70

- 1 Answer the following : (any **seven** out of ten) 14
- (1) Plant growth regulators.
  - (2) Terpenoids with examples.
  - (3) Bioreactor.
  - (4) List the plant secondary metabolites and the pathway.
  - (5) Phytohormones with significance.
  - (6) Flavonoids with examples.
  - (7) Significance of transpiration.
  - (8) Define CAM in plants.
  - (9) Significance of vacuoles.
  - (10) Plasmodesmata junction.
- 2 Answer the following : (any **two** out of four) 14
- (1) Water stress physiology in plants.
  - (2) Cell interaction through plasmodesmata.
  - (3) Explain in detail the primary and secondary cell wall in plants.
  - (4) Calvin cycle.
- 3 Write short note on : 14
- (1) Osmoprotectant.
  - (2) Explain the role of ethylene during the stress conditions in plant.
- OR**
- 3 Answer the following : 14
- (1) Photorespiration.
  - (2) Structural and biochemical aspects of cell plate.
- 4 Write short notes on : 14
- (1) Z-scheme Photosynthesis.
  - (2) Meristemic cells.
- 5 Answer the following : (any **two** out of four) 14
- (1) Role of phenolic compound in plant defense mechanism.
  - (2) Mechanism of conduction and transpiration of water in plants.
  - (3) Discuss IAA as plant hormone.
  - (4) Discuss the way of commercial production of plant secondary metabolites.