



**MBU-003-1144005** Seat No. \_\_\_\_\_

**M. Sc. (Sem. IV) (CBCS) (W.E.F. 2016) Examination**

**April / May - 2018**

**Botany : BOT - 423**

**(Water, Soil & Desertification)**

*(Elective) (New Course)*

**Faculty Code : 003**

**Subject Code : 1144005**

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

[Total Marks : 70

- Instructions :** (1) All questions are compulsory.  
(2) Draw neat and labelled diagram where required.

**1** Answer the following : (any seven) **14**

- (1) What is turgor pressure ?
- (2) What is gravitational effect ?
- (3) What is growth ?
- (4) Enlist cause of desertification.
- (5) What is matric suction ?
- (6) What is wind erosion ?
- (7) What is non saline non sodic soil ?
- (8) What is desertization ?
- (9) What is drought enduring plants ?
- (10) What is restoration of ecosystem ?

**2** Answer the following : (any two) **14**

- (1) Write note on solute suction.
- (2) What note on field capacity ?
- (3) Explain energy relationships in uptake of water from soil.

**3** Answer the following : **14**

- (1) Explain root extension.
- (2) Explain root and top proportion ratio.

**OR**

- (1) Write note on water balance in plants.
- (2) Write note on seed germination in relation to salinity.

**4** Answer the following : **14**

- (1) Write note on specific - toxicity theory.
- (2) Write note on effect of exchangeable sodium on physical properties of soil.

**5** Answer the following : (any two) **14**

- (1) Explain drought escaping plants.
- (2) Explain tolerance of plants to salinity.
- (3) Explain soil losses from water erosion.
- (4) Explain silvi-agri-pastoral system.

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