

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. (Agriculture) (Sem.-5)
FUNDAMENTALS OF SOIL AND
WATER ENGINEERING

Subject Code : BSAG-501

M.Code : 74165

Date of Examination : 02-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt ANY FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt ANY TWO questions.

SECTION-A

1. Write short notes on :

- a) Geodetic Surveying
- b) Dumpy level
- c) Sprinkler head
- d) Variable displacement pump
- e) Raindrop erosion
- f) Grassed waterways
- g) Gravity inlets
- h) Erodibility
- i) Border irrigation
- j) Cross staff.

SECTION-B

2. What is contour? Explain the characteristics of contour.
3. Define soil erosion and describe the factors affecting soil erosion.
4. Discuss the various pipes used for underground pipeline system.
5. Explain the working principle of centrifugal pump.
6. Calculate the Water Horse Power (WHP) and Shaft Horse Power (SHP) of electric motor of discharge 450 litre per min. against the head of 50 metre. Assume pump efficiency as 65 per cent.

SECTION-C

7. Classify the irrigation methods and explain the components of drip irrigation system.
8. Discuss the different agronomical and engineering measures to control soil erosion.
9. Explain the methods of water measurement and compute the discharge of rectangular weir 40 cm long with a head of 10 cm under the
 - a) With no end contraction
 - b) With one end contraction and
 - c) With two end contraction conditions.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.