

B. Sc. Agriculture (Semester – 1st)
WATER MANAGEMENT AND MICRO IRRIGATION
Subject Code: BAGR1-104
Paper ID: [130107]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

- a. Effective rainfall.
- b. Surface irrigation
- c. Objectives of irrigation.
- d. Surface drainage
- e. Mulching.
- f. Hydrological cycle.
- g. Importance of irrigation.
- h. Advantages of Drip irrigation.
- i. Water use efficiency
- j. Permanent wilting point

Section – B **(5 marks each)**

Q2. Explain critical stages for water need of crops?

Q3. Discuss the role of plastic mulching used in crop production?

Q4. Describe conjunctive use of water? Explain harmful effects of excess irrigation?

Q5. Discuss the Criteria of Scheduling Irrigation? Discuss about Irrigation Efficiency Measures?

Q6. Define Drainage, its principle and discuss its types along with advantages?

Section – C **(10 marks each)**

Q7. Discuss the Water Management technique in Maize, Cotton, Tomato, Sugarcane and Kinnow in detail?

Q8. What is Sprinkler irrigation system? What are the main components of sprinkler irrigation system? Write its advantages and disadvantages. Draw a labeled layout diagram of sprinkler irrigation system?

Q9. Discuss in detail about Water Resources and Overtime Irrigation Development in India and Punjab.