

A

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 99A04

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2025

Professional Elective

Agricultural Engineering

19UAG904-LANDSCAPE DESIGN AND MANAGEMENT

(Regulations 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Which of the following is not a versatile system of landscape irrigation? CO1 - U
(a) Drip irrigation (b) Lawn sprinkler irrigation
(c) Rain catchment drip irrigation (d) Centre pivot irrigation
- Which group of plants in gardens require slightly less water for their emergence? CO1 - U
(a) Regionally adapted plants (b) Turf grasses
(c) Potted or container plants (d) Newly grown plants
- Which method of irrigation is suitable for rectilinear or strangely molded fields and uneven or rugged areas? CO1 - U
(a) Surface Irrigation (b) Lateral move irrigation
(c) Localized irrigation (d) Pot irrigation
- Identify the water application gadget not used in localized irrigation. CO1 - U
(a) Tubes and orifices (b) Emitters (c) Nozzles (d) Perforated pipes
- Center pivot irrigation is suitable for? CO1 - U
(a) even terrain (b) Rough terrain (c) Un even terrain (d) All of the mentioned
- Pressurized water irrigation method is used in _____. CO1 - U
(a) Center pivot irrigation (b) surface irrigation
(c) lateral irrigation (d) All of the mentioned

7. What kind of metal is best in irrigation pipes? CO1 - U
 (a) copper (b) iron (c) Steel (d) None of the above
8. What is the manufacturing process of PVC pipes? CO1 - U
 (a) Extrusion process (b) Intrusion process
 (c) Heating process (d) Compression process
9. Pumps suitable for feeding known quantities of fertilizers or chemicals are known as CO1-U
 (a) Discharge pumps (b) Peristaltic pumps
 (c) Centrifugal pumps (d) Metering pumps
10. The device involved in closed loop control of automated landscape irrigation is CO1-U
 (a) Evaporimeter (b) Barometer (c) Lysimeter (d) Sphygmomanometer

PART – B (5 x 2= 10Marks)

11. Outline briefly the different aspects of rain catchment drip irrigation for landscaping. CO1-U
12. Mention the significance of pot irrigation system as a method of landscape irrigation. CO1-U
13. What are the components of landscape system? CO1-U
14. Enumerate the Importance of pressure rating in modern agriculture. CO1-U
15. What is time based automated irrigation system? CO1-U

PART – C (5 x 16= 80Marks)

16. (a) Elucidate the different methods of landscape irrigation. CO1-U (16)
 Or
 (b) Describe the smart irrigation technologies used for watering landscape gardens. CO1-U (16)
17. (a) Describe the important features of hose-end sprinkler irrigation and localized irrigation. CO1-U (16)
 Or
 (b) Explain the various aspects and types of lawn sprinkler irrigation system. CO1-U (16)

18. (a) Briefly explain about requirement of water for landscapes irrigation systems? CO1-U (16)
- Or
- (b) Explain about landscape irrigation and its segments with advantages and disadvantages? CO1-U (16)
19. (a) Illustrate the lawn landscaping with merits and demerits in detail? CO1-U (16)
- Or
- (b) Explain in detail about components and selection criteria of modern irrigation systems? CO1-U (16)
20. (a) Smart Irrigation Technology is an emerging automated landscape irrigation system. Justify the statement with suitable evidence. CO1-U (16)
- Or
- (b) Describe the salient features of sequential and non-sequential automated landscape irrigation systems. CO1-U (16)

