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Question Paper Code: 99A04

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2023

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)

1. 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
2. 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
3. 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
4. Identify the water application gadget not used in localized irrigation. CO1 - U
(a) Tubes and orifices (b) Emitters (c) Nozzles (d) Perforated pipes
5. Center pivot irrigation is suitable for? CO1 - U
(a) even terrain (b) Rough terrain (c) Un even terrain (d) All of the mentioned
6. 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)

