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Reg.	No.	

## B.E. / B.Tech. DEGREE EXAMINATION, MAY 2022

**Question Paper Code: 95A03** 

## Fifth Semester

## Agricultural Engineering

## 19UAG503 - MICRO IRRIGATION SYSTEM

(Regulation 2019)

Dura	ation: Three hours			Maximum: 10	0 Marks
		Answer	ALL Questions		
		PART A - (	$10 \times 1 = 10 \text{ Marks}$		
1. Persion wheel is a water li			ng device		CO1- R
	(a) Low head	(b)medium head	(c) high head	(d) manually	operated
2.	An example of high	head water turbine			CO1- R
	(a) pelton	(b) propeller	(c) Kaplan	(d)	banki
3.	water Provide	ed at the start of su	b main to control th	ne flow of	CO2- R
	(a) flush valve	(b)control valve	(c) non-return	valve (d) air-	release valve
4.	valve is all pump	ways required for	the positive displace	ement	CO2- R
	(a) isolation	(b)butterfly	(c)gate valve	(d) press	sure relief
5.	Treatment in the drip system	is used to control th	ne salt accumulation i	inside	CO3- R
	(a) chlorine	(b) acid	(c) chlorine dioxide	(d) chlor	rine gas
6.	is the heart	of drip irrigation sys	tem		CO3- R
	(a) emitter	(b) filter	(c) end cap	(d) filter	
7.	The type of filter w	ill depends upon			CO4- R

(c) Spacing

(d) source and quality of water

(b) crop type

(a) soil type

8.	drip	is the pro irrigation system		of water soluble through		CO4- R
	(a) (	Chemigation	(b) Fertigation	(c) chlorination	(d) acidifica	tion
9.	The	largest crop area	covered by drip irrig	gation in India is under		CO5- R
	(a) p	plantation crops	(b) orchards	(c) vegetable crops	(d) fiber crop	S
10.	The	J-lock dripper of	f Jain make is of	type emitter		CO5 -R
	(a) s	self-flushing		(b) pressure compensa	ating	
	(c) c	clog resistant		(d) non-pressure comp	ensating	
			PART – B (S	5 x 2= 10Marks)		
11.	Wha	at is priming and	how to rectify the pr	oblems in pump?		CO1- U
12.	writ	e about repair an	d maintenance of val	ve?		CO2- U
13.	Differentiate between Traditional and Micro irrigation methods?					CO3- U
14.	. Draw a schematic diagram of media filter?					CO4- U
15.	List	out the Compon	ents of Sprinkler irrig	gation?		CO5- R
			PART – C	(5 x 16= 80Marks)		
16.	(a)	What is the P sketch of and la		n centrifugal pump Draw	a CO1-U	(16)
			Or			
	(b)	Briefly explain	water lifting technolo	ogy traditional methods?	CO1- U	(16)
17.	(a)	Briefly explain valve?	& draw a sketch of P	Pressure relief valve- Gate	CO2 -U	(16)
			Or			
	(b)	Briefly explain valve?.	& draw a sketch o	of Isolated valve- Non retr	urn CO2 -U	(16)
18.	(a)	Define Micro Micro irrigation		son between Traditional a	and CO3- U	(16)
			Or			

	(b)	Merits and demerits of micro-irrigation system?	CO3 -U	(16)			
19.	(a)	Hydraulic Design and Layout of Drip Irrigation System?  Or	CO4- Ana	(16)			
	(b)	Considered the area of 1 ha square area planted with coconut with spacing of 7.5 m x 7.5 m. Design drip irrigation system?	CO4 -Ana	(16)			
20.	(a)	Explain about Operation and maintenance of Sprinkler irrigation system?	CO5- U	(16)			
	Or						
	(b)	Layout-Components of sprinkler irrigation system, explain with neat sketches	CO5- U	(16)			