Reg. No. :					
1108.110.1					

CO<sub>4</sub>- U

CO<sub>4</sub>- R

# **Question Paper Code: 59G52**

#### B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

## Interdisciplinary

### Mechanical Engineering

#### 15UGM952 - AUTOMATION IN AGRICULTURE

(Common to Information Technology)

(Regulation 2015) Duration: 1:15 hours Maximum: 30Marks PART A -  $(6 \times 1 = 6 \text{ Marks})$ (Answer any six of the following questions) 1. The application of engineering and technology in agricultural operations to do a CO1- R better way to improve productivity (a) Custom hiring (b) Farm mechanization (c) Farm machinery (d) All of the above CO1-U The farm power requirement in 2020 by ICAR \_\_\_\_\_. (a) 0.1kw/ha (b) 1 kw/ha (c) 2.0 kw/ha (d) 1.5 kw/ha 3. The minimum soil manipulation is essential for crop production in CO2-R (a) No tillage (b) Minimum tillage (c) Strip tillage (d) Reduced The shovel of cultivator is made up of CO2-R 4. (a) Chilled cast iron (b) Cast iron (d) Soft centre (c) Mild steel What percent of the world's water is used for irrigation? CO<sub>3</sub>- U (a) 50% (b) 38% (c) 60% (d) 70% In which of the following systems, the water falls drop by drop just at the CO3- U position of the roots (a) Sprinkler system (b) Sip system (c) Drip system (d) All of the above

(b) Solar battery

(d) None of the above

In any solar-power system, the most important device used

The available traditional methods of irrigation

(a) Solar charge controller

(c) Solar converter

9.	Demeter is a type of robot used for		CO5- U							
	(a) Remove the weed	(b) Cutting the crops								
	(c) Cut the grass in lawns	(d) Tending								
10.	0. Robot which can work with respect to medium and environment is									
	(a) Mobile Robot	(b) Industrial Robot								
	(c) Field Robot	(d) Weed Controller								
	PART – B (3 x 8= 24 Marks)									
	(Answer any three of the following questions)									
11.	Classify and explain the mechanization in farming operations.			(8)						
12.	Explain the working of potato planter with no	CO2-U	(8)							
13.	. Elucidate the Portable Timer method of automatic irrigation system.			(8)						
14.	Enlighten in detail about the automated in moisture,	CO4- U	(8)							
15.	List out the various robots used in agricul four.	CO5- U	(8)							

(b) Ditch irrigation (c) Sprinkler system (d) All of the above

(a) Drip irrigation