A

PART A - (10 x 1 = 10 Marks)

1. A man can develops _____.   CO1- R

    (a) 75 watts   (b) 80 watt   (c) 90 watts   (d) 1 Hp

2. To cultivate 10 ha of land the required animal power (Bullock pair)   CO1- R

    (a) 5 pair   (b) 50 pair   (c) 100 pair   (d) 500 pair

3. The minimum soil manipulation is essential for crop production in   CO2- R

    (a) No tillage   (b) Minimum tillage   (c) Strip tillage   (d) Reduced tillage

4. A vertical disc plough is also termed as: CO2- R

    (a) Wheat plough   (b) Harrow plough   (c) Both (a) & (b)   (d) None of the above

5. The benefits of micro irrigation are   CO3- R

    (a) Most efficient method of irrigation

    (b) Increases crop productivity with less water usage

    (c) Saves electricity

    (d) Enhances fertilizer use efficiency

6.   How can an irrigation layout be automated?   CO3- R

     (a) Sections of channel   (b) At individual bay outlets.

     (c) Both (a) and (b)   (d) None of the above

7.   In any solar-power system, the most important device used   CO4- R

     (a) Solar charge controller   (b) Solar battery   (c) Solar converter   (d) None of the above

8.   The available traditional methods of irrigation   CO4- R

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

9.   Demeter is a type of robot used for   CO5- R

     (a) Remove the weed   (b) Cutting the crops

     (c) Cut the grass in lawns   (d) Tending trees

10. Robot which can work with respect to medium and environment is   CO5- R

     (a) Mobile Robot   (b) Industrial Robot   (c) Field Robot   (d) Weed Controller

PART – B (5 x 2= 10 Marks)

11. Illustrate any three Scope of farm mechanization.   CO1- U

12. What are the main functions of cultivator?   CO2- R

13. Differentiate between surface and subsurface irrigation.   CO3- Ana

14. Name the types of controller used in ANN.   CO4- U

15. List the Controllable Maneuvers used in Wheel-type Robot Tractor.   CO5- U

PART – C (5 x 16= 80Marks)

16. (a) Explain the different sources of farm power.   CO1- U   (16)

                                    Or

     (b) Explain the status of farm mechanization in India.   CO1- U   (16)

17. (a) What are the effects of vertical suction and horizontal suction in a   CO2- U   (16)
          mouldboard plough?

                                    Or

     (b) What are the different types of disc harrow? Describe the working of   CO2- U   (16)
          off-set disc harrow.

18. (a) Explain the various components in automation in Agriculture.   CO3- U   (16)

                                    Or

2

(b) Compare traditional mechanical controllers with electronic and computer based controllers used nowadays for automating Agriculture — CO3- U — (16)

19. (a) Explain in detail about the machine learning in agricultural monitoring. — CO4- U — (16)

Or

(b) Explain in detail about the IOT in agriculture. — CO4- U — (16)

20. (a) Explain the various Agricultural robot vehicles that are used for agriculture recently. — CO5- U — (16)

Or

(b) Explain about the types of Robots used in Horticulture. — CO5- U — (16)

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