

## **Section-D**

**Note: Long answer questions. Attempt any two questions out of three Questions. (2x8=16)**

- Q.23 Explain the submersible pump and vertical turbine pump, their common troubles and remedies. (CO4)
- Q.24 Describe in brief the different type of wells and open wells. (CO5)
- Q.25 Explains units of water measurement and also describe direct and indirect method of water measurement. (CO3)

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Roll No. ....

220131

## **3rd Sem. / Agriculture Engineering Subject : Farm Irrigation Engineering**

Time : 3 Hrs.

M.M. : 60

## **SECTION-A**

**Note: Multiple choice Questions. All Questions are compulsory. (6x1=6)**

- Q.1 The total depth of water application to the crop is called : (CO3)  
a) Duty                          b) Delta  
c) Base                          d) None of these
- Q.2 The total depth of water applied through irrigation is termed as; (CO3)  
a) Net irrigation requirement  
b) Gross irrigation requirement  
c) Duty  
d) Delta
- Q.3 Which of the following type of irrigation methods uses supply ditch, border and ridges? (CO6)  
a) Check flooding              b) Basin flooding  
c) Drip irrigation                d) Boarder irrigation

- Q.4 Irrigation canal are generally aligned along; (CO5)  
 a) Contour line      b) Watershed line  
 c) Straight line      d) Valley line
- Q.5 Which type of motor is typically used in submersible pumps to ensure reliable Underwater operation. (CO4)  
 a) Synchronous motor    b) Induction motor  
 c) Universal motor    d) Slipper motor
- Q.6 Which state utilizes the highest amount of chemical fertilizer in India; (CO1)  
 a) Rajasthan      b) Punjab  
 c) Uttar Pradesh      d) Haryana

### Section-B

**Note: Objective/Completion type questions. All questions are compulsory.** (6x1=6)

- Q.7 The supply of water to crops at different intervals is called \_\_\_\_\_. (CO2)
- Q.8 Duty it is the relation between the \_\_\_\_\_ and the quantity of water used. (CO3)
- Q.9 Chute spillways are used at \_\_\_\_\_ slop. (CO5)
- Q.10 Write the formula of Darcy's Law. (CO5)
- Q.11 The two famous methods of irrigation the field are \_\_\_\_\_ and \_\_\_\_\_ irrigation methods. (CO3)

- Q.12 The area served by a canal system through supply of water for irrigation and other purposes is called a \_\_\_\_\_. (CO5)

### Section-C

**Note: Short answer type Questions. Attempt any eight questions out of ten Questions.** (8x4=32)

- Q.13 What are the various quality parameters for irrigation water and their importance. (CO3)
- Q.14 Lists the various types of centrifugal pumps. (CO3)
- Q.15 Write a short note on evaporation and evapotranspiration. (CO3)
- Q.16 What are the different types of water bearing formations. (CO5)
- Q.17 Explain any two benefits of sprinkler irrigation system. (CO2)
- Q.18 Write a short note on subsurface irrigation. (CO2)
- Q.19 What is the criteria for selecting pumps for irrigation. (CO4)
- Q.20 Explain different type of impeller used in centrifugal pumps and explains any one of them. (CO4)
- Q.21 Describe hydraulic conductivity and storage coefficient. (CO5)
- Q.22 What are the different factors that affects duty. (CO3)