

- Q.19 What are the design parameters of Open Channels? (CO5)
- Q.20 What are the advantages of lining canals? (CO6)
- Q.21 Describe the working of drip irrigation system. (CO2)
- Q.22 State four characteristics of aquifer influencing yield of well. (Co5)

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)
- Q.23 Explain the operation and maintenance of submersible pump, their common troubles and remedies. (CO4)
- Q.24 Describe different surface irrigation methods. Explain the basic details, characteristics, type and adaptability of Border irrigation methods. (CO2)
- Q.25 Briefly explain various water conveyance structures and their functions. (CO6)

No. of Printed Pages : 4  
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**3rd Sem./ Agriculture**  
**Sub : Farm Irrigation Engineering / Farm Irrigation Engineering / Water Res. Engg. / Irrigation Technology.**

Time : 3 Hrs.

M.M. : 60

#### SECTION-A

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

- Q.1 Which type of irrigation is based merely on gravitation? (CO2)
- a) Flow irrigation      b) Direct irrigation  
c) Lift irrigation      d) Storage irrigation
- Q.2 The total depth of water application to the crop is called: (CO3)
- a) Duty      b) Delta  
c) Base      d) None of these
- Q.3 The height at which water stand in a piezometer (CO3)
- a) Static water level  
b) Piezometric surface

- c) Pumping water level
- d) None of these

Q.4 The irrigation method that resembles like rain(CO3)

- a) Sprinkler                      b) Drip
- c) Shallow                        d) Rotary

Q.5 Pump efficiency is defined as the ratio of \_\_\_\_\_.(CO4)

- a) Pressure to temperature
- b) Temperature to pressure
- c) Water horsepower to pump horsepower
- d) Pump horse power to water horse power

Q.6 The water obtained from the tube wells is known as \_\_\_\_\_(CO1)

- a) Surface water                b) Sub-Surface water
- c) Runoff                         d) Portable water

### SECTION-B

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

Q.7 List different sources of irrigation water. (CO1)

Q.8 Duty it is the relation between the \_\_\_\_\_ and the quantity of water used. (CO3)

Q.9 The area served by a canal system through supply of water for irrigation and other purposes are called a \_\_\_\_\_.(CO6)

Q.10 What type of irrigation method is also called as trickle irrigation? (CO2)

Q.11 \_\_\_\_\_ is the application of controlled amounts of water to plants at needed intervals. (CO1)

Q.12 On what factor does transpiration ratio depends on \_\_\_\_\_. (Water/Soil) (CO3)

### SECTION-C

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

Q.13 What is the need and importance of irrigation. (CO1)

Q.14 What is duty and different factors affecting Duty? (CO3)

Q.15 What are the criteria for selection of irrigation pumps? (CO4)

Q.16 State the effects of excessive use of fertilizers on environment. (CO6)

Q.17 Write a short note on subsurface irrigation. (CO2)

Q.18 Describe different types of impellers used in centrifugal pump? (CO4)