

B.E DEGREE EXAMINATIONS: NOV/DEC 2014

(Regulation 2009)

Fifth Seme/ter

CIVIL ENGINEERING

CEE111: Irrigation Engineering

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. The ratio of the quantity of water stored in the root zone of the crops to the quantity of water actually delivered in the field is known as
 - a) water use efficiency
 - b) water application efficiency
 - c) Water conveyance efficiency
 - d) All the above
2. Cotton is known as
 - a) Perennial crop
 - b) Eight months crop
 - c) Seasonal crop
 - d) Cash crop
3. One cumec day equal to ----- hectare-metre
 - a) 864
 - b) 86.4
 - c) 8.64
 - d) 0.864
4. The depth of water required to bring the soil moisture content of a given soil up to its field capacity is called
 - a) pellicular water
 - b) equivalent moisture
 - c) soil moisture deficiency
 - d) hygroscopic water
5. A temporary dam constructed to exclude water from a specific area of a river is known as
 - a) Impounding Dam
 - b) Detention Dam
 - c) Diversion Dam
 - d) Coffer Dam
6. Small storage structure meant for irrigating the local area is known as
 - a) dam
 - b) tank
 - c) reservoir
 - d) weir
7. Irrigation canals are generally aligned along
 - a) ridge line
 - b) contour line

(OR)

- b) (i) Compare the Traditional and Modern Irrigation Methods of irrigation. (8)
- (ii) Discuss the factors to be considered before choosing an irrigation method. (6)

- 23. a) (i) Discuss in detail about the various forces acting on a dam with a neat sketch. (8)
- (ii) A spillway is a safety valve in a dam? :-Justify the statement. (6)

(OR)

- b) (i) Work out an elementary profile of a gravity dam by Middle Third Rule. (8)
- (ii) List the factors affecting the selection of a site for dam construction. (6)

- 24. a) (i) Classify the cross drainage works and explain any two with neat sketches. (8)
- (ii) Write short notes on balancing depth of canal excavation. (6)

(OR)

- b) (i) Define River training works. Discuss any two types of river training works with neat sketches. (8)
- (ii) Explain how are canals classified? State the importance of contour canal. (6)

- 25. a) (i) What is meant by 'participatory irrigation management'? Explain the concept. (8)
- (ii) How will you minimize the irrigation losses? (6)

(OR)

- b) (i) Describe the common criteria for judging the performance of an irrigation system. (8)
- (ii) What is the need for optimization of water use? (6)
