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Question Paper Code: 41156

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Fifth Semester

Civil Engineering

14UCE506 - IRRIGATION ENGINEERING

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Permanent Wilting point moisture content for a crop represents the
 - hygroscopic water
 - equivalent moisture
 - capillary water
 - field capacity water
- Salinity in irrigation water is measured by
 - SAR value
 - electrical conductivity value
 - pH value
 - none of these
- The ratio between the area of a crop irrigated and the quantity of water required during its entire period of the growth, is known as
 - delta
 - duty
 - base period
 - crop period
- What are kharif crops?
 - wheat
 - Potatoes
 - rice
 - gram
- Optimum depth of Kor watering for rice is
 - 135mm
 - 165mm
 - 190mm
 - 215mm
- The major resisting force in a gravity dam is
 - water pressure
 - wave pressure
 - self-weight of dam
 - uplift pressure

7. The back water effect of a weir is best called
- (a) retrogression (b) afflux
(c) back water curve (d) none of these
8. The canal, which may frequently encounter cross drainage works, will be a
- (a) watershed canal (b) contour canal
(c) side slope canal (d) none of these
9. Canal outlets are also called
- (a) canal escapes (b) canal modules
(c) canal off takes (d) canal openings
10. The components of water management are
- (a) watershed management
(b) land management
(c) rain water management and reservoir management
(d) all the above

PART - B (5 x 2 = 10 Marks)

11. Define irrigation.
12. Define duty of a crop.
13. Define barrage.
14. What do you mean by a cross drainage work?
15. What are the advantages of irrigation water management?

PART - C (5 x 16 = 80 Marks)

16. (a) Explain briefly the classification of soil water. (16)
- Or
- (b) Write a note on national water policy. (16)
17. (a) Explain the direct methods to measure the consumptive use. (16)
- Or
- (b) Briefly explain about Irrigation efficiencies. (16)
18. (a) Explain the selection of site for a dam and selection of type of dam. (16)

Or

(b) Briefly explain the different types of spillway. (16)

19. (a) Explain the types of cross drainage works with diagrams. (16)

Or

(b) Explain the subsurface methods of irrigation and discuss its merits and demerits. (16)

20. (a) Describe briefly about Command Area Development (CAD) programme and its functions. (16)

Or

(b) Describe briefly about Participatory irrigation management. (16)
