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Question Paper Code: 31156

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

Fifth Semester

Civil Engineering

01UCE506 – IRRIGATION ENGINEERING

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What is the purpose of irrigation?
2. List out any four properties of soil.
3. Differentiate duty and delta.
4. Define delta of a crop.
5. Define diversion headwork.
6. What are the forces acting on arch dam?
7. Define canal regulation
8. List out the components of a diversion head works.
9. What is meant by system of rice intensification?
10. Summarize the need for optimization of water use.

PART - B (5 x 16 = 80 Marks)

11. (a) (i) Explain the necessity of irrigation and discuss its merits and demerits. (8)
(ii) Write a note on national water policy. (8)

Or

- (b) Discuss about various types of irrigation methods generally adopted. (16)

12. (a) Enlist the factors affecting duty. Describe the various methods of improving duty. (16)

Or

- (b) (i) Define duty delta and base period. (8)
(ii) Explain the consumptive irrigation requirement and net irrigation requirement (8)

13. (a) Explain the selection of site for a dam and selection of type of dam. (16)

Or

- (b) Explain the any two types of spillway with neat sketch. (16)

14. (a) What is a cross drainage works? Explain any two cross drainage works with neat sketches. (16)

Or

- (b) Explain the various type of alignment of canals. (16)

15. (a) Explain participatory irrigation management with suitable example. Emphasize on water users association. (16)

Or

- (b) Explain briefly about water user's association and its scope and possible functions on irrigation water management. (16)