

PGDWR-04

June - Examination 2019

PGDWR Examination**Practical Approach of Water Resource Development****Paper - PGDWR-04****Time : 3 Hours]****[Max. Marks :- 100**

Note: The question paper is divided into three sections A, B and C. Write answers as per given instructions.

Section - A**10 × 2 = 20**

(Very Short Answer Questions)

Note: Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

- 1) (i) Explain the classes of soil structure.
- (ii) Define infiltration rate.
- (iii) What is Auger hole method?
- (iv) Name the flow measuring structures.
- (v) Classify the irrigation systems according to their size.
- (vi) Name the factors which affect suitability of irrigation methods.
- (vii) Explain subsurface irrigation.

- (viii) What is sprinkler irrigation?
- (ix) Define contourline.
- (x) What is culturable command area?

Section - B**4 × 10 = 40**

(Short Answer Questions)

Note: Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 10 marks.

- 2) How you can find out the texture of the soil in the field?
- 3) Describe the piezometer method to determine hydraulic conductivity.
- 4) Explain aquatic and vegetative growth in canal.
- 5) How can the leakage of canal be controlled?
- 6) How to measure flow by using parshall flume?
- 7) Explain water table monitoring.
- 8) How cut-fill ratio is determined?
- 9) What is the role of jungle clearance in canal maintenance?

Section - C**2 × 20 = 40**

(Long Answer Questions)

Note: Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 20 marks.

- 10) Discuss the inverse auger hole method for measuring hydraulic conductivity.
 - 11) Discuss in detail the determinants of soil formation and soil quality.
 - 12) Explain survey and design procedure for land grading.
 - 13) Describe topographical survey and mapping.
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