

**PGDWR-04**

December - Examination 2015

**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 x 2 = 20

(Very Short Answer Type Questions)

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

- 1) (i) Define soil texture.
- (ii) What is inverse Auger hole method?
- (iii) What is clay?
- (iv) Define sedimentation.
- (v) What is plane of best fit?
- (vi) Define pressurized irrigation method.
- (vii) What is medium irrigation project?

- (viii) What is irrigation planning?
- (ix) What precaution should be taken for the topographical survey?
- (x) What are the characteristics of contour line?

**Section - B**

4 x 10 = 40

**(Short Answer Questions)**

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

- 2) Explain the measurement of infiltration.
- 3) Describe the piezometer method to determine hydraulic conductivity.
- 4) How to measure flow by using cut throat flume?
- 5) Explain the preparation of L-section of field drain.
- 6) Make a note on use of contour maps.
- 7) Explain water table monitoring.
- 8) Analyze the impacts of Chambal command area.
- 9) What is the role of jungle clearance in canal maintenance?

**Section - C**

2 x 20 = 40

(Long Answer Questions)

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

- 10) Discuss the types of soil structure.
  - 11) Discuss different irrigation methods. How border irrigation is designed? Give the factors affecting border irrigation design.
  - 12) What is surface drainage and what you will do in case of failure due to leakage in canal?
  - 13) Design a drip irrigation system for a field 100 m by 150 m. The soil is light textured with south to north slope of 0.5%. The evaporation is 11.5 mm/day. Available discharge 3.5 lps. Static head 3.5 lps, static head 10 m. Wetted area 20%. Life of orchard 3 years. Orchard is of pomegranate.
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