Seat No.	

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Final Year (Civil Engineering) (CBCS) (Semester - VIII)

Examination, November - 2023

PCC-CV-802 : WATER RESOURCE ENGINEERING - II

Sub. Code : 84746

Day and Date : Tuesday, 21 - 11 - 2023 **Total Marks : 70**

Time : 10.30 a.m. to 01.00 p.m.

Instructions :

1) **Q.4 and Q.8 are compulsory. In section I Attempt any two questions from Q.1, Q.2 and Q.3 and in section II attempt any two questions from Q.5, Q.6 & Q.7.**
2) **Figures to the right indicate full marks.**
3) **Assume suitable data if necessary and state them clearly.**
4) **Answer shall be supported by adequate sketches.**

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SECTION - I

Q1) a) Explain in details Zones of storage and control levels in reservoir? **[5]**

b) Draw a neat sketch of zoned earthen dam and explain its major components? **[5]**

Q2) a) Write step by step analytical procedure to check the stability of gravity dam? **[5]**

b) Define and describe in detail with a neat sketch the elementary profile and practical profile of a gravity dam. **[5]**

Q3) a) Discuss various methods used for energy dissipation below spillway. **[5]**

b) Describe selection criteria of spillways. **[5]**

P.T.O.

Q4) Solve any three :

a) Write Note on: Classification of dams. **[5]**

b) Write Note on: High and Low Gravity Dams **[5]**

c) Write Short Note on: Ogee Spillway **[5]**

d) Explain the factors affecting selection of site for Dam? **[5]**

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SECTION - II

Q5) a) Describe in brief Various types of Weirs. **[5]**

b) Draw a layout of Diversion headwork and explain any three components in detail. **[5]**

Q6) a) What is necessity of canal lining? Also explain advantages of canal lining? **[5]**

b) Discuss in detail selection criteria for canal lining. **[5]**

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Q7) a) Write in detail about River Meandering- causes, factors controlling process and features. **[5]**

b) Explain the major components of Hydro Power Plant. **[5]**

Q8) Solve any Three :

a) Write note on: Bligh's Creep theory. **[5]**

b) Explain various types of Canal falls. **[5]**

c) Write Note on: Type of CD Works. **[5]**

d) Write note on: Types of Hydropower Plant **[5]**

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