

Total No. of Questions : 8]

SEAT No. :

P534

[Total No. of Pages : 2

[6004]-456

B.E. (Civil)

**INTEGRATED WATER RESOURCES PLANNING AND
MANAGEMENT**

(2019 Pattern) (Semester - VII) (Elective - III) (401003C)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Attempt Q.No.1 or Q.No.2, Q.No.3 or Q.No.4, Q.No.5 or Q.No.6, Q.No.7 or Q.No.8.
- 2) Neat diagrams must be drawn whenever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

Q1) a) Justify importance assessment of river water quality and write a brief note on prevention and control of surface water pollution. **[10]**

b) Explain polluters pay principle. **[8]**

OR

Q2) a) What is Environmental Impact Assessment (EIA) and what are its objectives, state methodology to carryout EIA. **[10]**

b) State any four CPCB regulations regarding water pollution control. **[8]**

Q3) a) State and explain principles of planning and financing water of water resources projects. **[10]**

b) Explain how water is economic good. **[7]**

OR

Q4) a) Explain framework for planning a sustainable water future. **[10]**

b) Explain in brief economics and decision making in IWRPM. **[7]**

Q5) a) What are water crises, explain its global and national perspective. **[10]**

b) State and explain rural local governing body water laws. **[8]**

OR

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Q6) a) State and explain UN laws on non-navigable uses of international water courses. [10]

b) State any four municipal corporation laws regarding water supply and drainage. [8]

Q7) a) Explain in detail role of dam in flood control and power generation and its importance in IWRPM. [10]

b) Explain importance of management of flood plains. [7]

OR

Q8) a) Explain in detail Use of QGIS in IWRPM. [10]

b) Explain application of soft computing in flood control. [7]