

Total No. of Questions : 8]

SEAT No. :

PB2220

[6263]-57

[Total No. of Pages : 2

B.E. (Civil Engineering)

**INTEGRATED WATER RESOURCES PLANNING AND
MANAGEMENT**

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

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever 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

P.T.O.

- 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]

