

BA5069 URBAN ENVIRONMENT MANAGEMENT

DETAILED SYLLABUS

UNIT I URBAN ENVIRONMENTAL ISSUES

Urbanization- Population growth scenario -Migration - Pollution of surface water resources - Rivers, tanks, channels -Ground water exploitation - Waste water -Characteristics -Pollution problems - Solid waste -Air pollution - CPCB norms.

UNIT II URBAN MASTER PLANS

Planning and organizational aspects -Urban waste resources management - Water in urban ecosystem -Urban water resources planning and organization aspects -Storm water management practices -Types of storage -Magnitude of storage -Storage capacity of urban components -Percolation ponds -Temple tanks -Rainwater harvesting -Urban water supply - Demand estimation -Population forecasting -Source identification -Water conveyance - Storage reservoirs -Fixing storage capacity - Distribution network -Types -Analysis -Computer applications - Conservation techniques -Integrated urban water planning - Smart city project planning - Green Building - LEED certification - Green audit

UNIT III URBAN WASTEWATER MANAGEMENT

Sewage generation -Storm drainage estimation -Industry contribution -Wastewater collection system -Separate and combined system -Hydraulic design of sewer and storm drain - Wastewater treatment -Disposal methods -Concept of decentralization - 3R concepts.

UNIT IV MUNICIPAL SOLID WASTE MANAGEMENT

Sources of solid waste -Characteristics -Rate of generation -Segregation at source -Collection of solid waste -Methods of collection -Route analysis -Transfer and transfer stations - Processing and disposal of solid waste.

UNIT V CASE STUDIES

Environmental economics- Social and physiological aspects of pollution - Successful urban management -Models- Urban management- Case studies from developed nations -Software.

REFERENCES

1. George Tchobanoglous, Hilary Theisen and Samuel A, Vigil "Integrated Solid Waste Management", McGraw Hill Publishers, New York, 1993.
2. McGhee J., "Water supply and sewerage", McGraw Hill Publishers, 1991

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Notes
Syllabus
Question Papers
Results and Many more...

Available @

www.AllAbtEngg.com

3. Martin P. Wanelista and Yousef. "Storm Water Management and Operations", John Wiley and Sons, 1993.
4. Neil S. Grigg., "Urban Water Infrastructure Planning – Management and Operations",
5. John Wiley and Sons, 1986.

OBJECTIVES

- To create an awareness on the various environmental issues in an urban scenario and give an exposure to the urban water resources and its management.
- To impart knowledge on the stages of works involved in a water supply project of a city, safe wastewater collection system for generated wastewater and its management, solid waste and their safe disposal beyond urban limit to be free from pollution is also addressed in the course work.