CBCS SCHEME

Sahyadri College of Engineering & Management
CENTRAL LIBRARY
Adyar, Mangalore-7

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Sixth Semester B.E. Degree Examination, June/July 2018
Water Resources Management

Time: 3 hrs. Max. Marks: 80

Note: ***Answer FIVE full questions, choosing one full question from each module.***

Module-1

1 a. With a sketch, explain hydrologic cycle. **(08 Marks)**
b. Give a summary on global water resources and Indian water resources. **(08 Marks)**

OR

2 a. With a sketch, explain confined and un-confined aquifer. **(08 Marks)**
b. What is water scarcity? Summarize the contributing factors of water scarcity. **(08 Marks)**

Module-2

3 a. Explain the necessity of water resources planning and management. **(08 Marks)**
b. Explain the spatial and temporal scales of planning and management. **(08 Marks)**

OR

4 a. With a typical analytical frame work for water resources management studies, explain inception, development and selection phases. **(08 Marks)**
b. Summarize the questions addressed in adaptive integrated policy an activities of water resources planning and management. **(08 Marks)**

Module-3

5 a. With a sketch showing the components, explain the principles of integrated water resources management (IWRM). **(08 Marks)**
b. Explain the guiding principles : Dublin statement and Rio declaration of integrated water resources management. **(08 Marks)**

OR

6 a. With a figure of three pillars: Economic efficiency, equity and environmental sustainability, explain the implementation process of IWRM. **(08 Marks)**
b. Summarize the sectors benefited by IWRM. **(08 Marks)**

Module-4

7 a. Explain the existing legal framework and constitutional provisions for water in India. **(08 Marks)**
b. Explain the various deficiencies in the existing legal framework of water resources development in India. **(08 Marks)**

OR

8 a. Summarize the salient features of Indian National Water Policy 2012. **(08 Marks)**
b. Summarize the scope of Water User's Association (WUA) and list it's functions. **(08 Marks)**

Module-5

9 a. What is rainwater harvesting? Explain the needs for rainwater harvesting. **(08 Marks)**
b. Explain the different types of lining done to control seepage in Ponds. **(08 Marks)**

OR

10 a. What is Percolation tank? Describe the general guidelines to be followed in proposing a percolation tank. **(08 Marks)**
b. Briefly explain the various techniques of rain water harvesting in urban area. **(08 Marks)**

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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