Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14CE3026** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INTRODUCTION TO IWRM** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| Q. No | Sub Div. | Questions | Course  Outcome | Marks |
| 1. | a. | Define IWRM concept. | CO 1 | 6 |
| b. | Highlight the four principles of IWRM formulated at the Dublin Conference | CO 1 | 14 |
| (OR) | | | | |
| 2. | a. | What are the symptoms of global water crisis? | CO 2 | 8 |
| b. | Give the background of Cauvery dispute. | CO 3 | 12 |
| 3. | a. | Distinguish between green water and blue water. | CO 2 | 10 |
|  | b. | What are the main components of grey water? | CO 2 | 10 |
| (OR) | | | | |
| 4. | a. | List out the consequences of climate change on water resources management | CO 3 | 14 |
|  | b. | What do you understand by sustainable development? | CO 1 | 6 |
| 5. | a. | Watershed approach is the ideal in the context of IWRM. Highlight. | CO 3 | 12 |
|  | b. | Why is environmental flow important for ecosystems? | CO 2 | 8 |
| (OR) | | | | |
| 6. | a. | What do you understand by factor of safety in the context of water management? | CO 2 | 6 |
|  | b. | State the importance of risk analysis in the context of floods and droughts. | CO 2 | 14 |
| 7. | a. | What are the main sources of water pollution in the country? Explain | CO 3 | 14 |
|  | b. | List out a few water-borne diseases | CO 3 | 6 |
| (OR) | | | | |
| 8. | a. | List out different techniques used for groundwater recharge in urban areas? | CO 3 | 8 |
|  | b. | With the help of a sketch, describe the different components of a roof-top rain water harvesting structure. | CO 3 | 12 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Give short notes on (i) virtual water and (ii) conflict resolution | CO 2 | 10 |
|  | b. | Critically comment on the Public Private Participation (PPP) introduced in the textile town of Tirupur in Tamil Nadu. | CO 2 | 10 |

ALL THE BEST