



VIT

Vellore Institute of Technology

Final Assessment Test – November/December 2023

Course: **BCLE216L - Water Resource Management**

Class NBR(s): **3836**

Slot: **F1+TF1**

Time: **Three Hours**

Max. Marks: **100**

KEEPING MOBILE PHONE/SMART WATCH, EVEN IN 'OFF' POSITION, IS TREATED AS EXAM MALPRACTICE

Answer any TEN Questions

(10 X 10 = 100 Marks)

- ~~1~~ Explain the hydrologic cycle with neat sketch and brief the challenges and need for water management.
- ~~2~~ Brief about the threat of climate change on water resources and explain the salient features and necessity of water policies.
- ~~3~~ Discuss about water availability in India and brief on how sustainable use of water and water footprint will support water management.
- ~~4~~ How will you use the applications of remote sensing in hydrological models and devise a methodology for drought forecast.
- ~~5~~ Discuss on virtual water trading. Explain with a case study the contribution of virtual water trading to global water security.
- ~~6~~ Comment on the amount of water allocated for agriculture in India and discuss how various irrigation methods can ensure efficiency in productivity.
- ~~7~~ Explain in detail the concepts, needs, constraints and limitations of privatisation of water resource management. How it will impact on sustainability of water resources?
8. Brief on the existing legal framework for water and constitutional provisions for water usage and conservation in India.
- ~~9~~ Write about the policy measures proposed to establish water user associations and India's national level initiatives for groundwater regulation.
- ~~10~~ Discuss the future trend on water availability, and the economic value of water loss. Explain brief in the water harvesting techniques.
- ~~11~~ Write in detail about economic theory of supply and demand management in terms of water resources management with suitable examples.