

**B.Sc. 3<sup>rd</sup> Year 1<sup>st</sup> Semester Examination, 2023**  
**Geography**  
**Course Code: SC/GEOG/UG/DSE/TH/01**  
**Paper: Hydrology and Oceanography (DE501T)**

**Time: Two hours**

**Full Marks: 50**

**GROUP A**

**Answer any two questions**

**10x2= 20**

1. Describe the major relief features of ocean floor with suitable diagrams. 10
2. Attempt a classification of coral reefs. What are the major threats to their existence? 7+3
3. Mention the factors affecting groundwater movement. Explain Darcy's law. What is mean by hydraulic conductivity? 4+4+2
4. Discuss the factors controlling groundwater recharge. Describe the importance of remote sensing and GIS in the identification of groundwater potential recharge zones. 5+5

**GROUP B**

**Answer any two questions**

**5x2=10**

5. Briefly discuss the causes of sea level change.
6. What do you mean by sustainable use of marine resources?
7. Describe the components of the hydrograph. What is a unit hydrograph?
8. Briefly discuss the methods of runoff estimation from a catchment.

**GROUP C**

**Answer any five questions**

**2x5=10**

9. What do you mean by watershed management?
10. What are the types of ocean tides?
11. Discuss the importance of T-S Diagram.
12. Explain the importance of drainage basin as a hydrological unit.
13. Differentiate aquitard from aquiclude.
14. 'Clay has high porosity but low permeability' - justify it.
15. Define base flow.
16. What do you mean by hygroscopic water?