

S.Y.B.A. Geography,

Semester- IV

Paper-II: Introduction to Oceanography

Unit-I: Nature of Oceanography

- 1.1 Origin and Development of Oceanography
- 1.2 Oceanography : meaning, definition, nature and scope
- 1.3 Branches of oceanography: physical chemical and biological
- 1.4 Major Oceans and its characteristic features

Unit-II: Bottom Relief and Ocean Water

- 2.1 Ocean floor and its characteristics
- 2.2 Composition of ocean water
- 2.3 Factors affecting ocean water temperature
- 2.4 Vertical and horizontal distribution of ocean temperature
- 2.5 Factors affecting salinity of ocean water
- 2.6 Vertical and horizontal distribution of oceanic salinity

Unit-III: Movements of Ocean Water

- 3.1 Waves- Formation and types
- 3.2 Tsunami and their effects on coast
- 3.3 Concept and types of Tides
- 3.4 Equilibrium theory of Tides
- 3.5 Ocean Currents – types and their effects

Unit-IV: Man and Ocean

4.1 El- Niño and La-Niña phenomenon

4.2 Coral reefs and their importance

4.3 Marine Ecosystem

4.4 Marine pollution

4.5 Oceans and global climate change

Unit-V: Practical Component

5.1 Map filling : Related to Oceanography

5.2 Reading and Interpretation of navigation charts and bathymetric maps

Reference books:-

1. Bhatt, J.J. 91978): Exploring the Planet Ocean, D.Von Nostrand Co.New York.
2. Birla Economic Research Foundation, economic Research Division 91992): The Oceans, Allied Publishers Ltd. New Delhi.
3. Chandra, S. and Others (eds).(1993): The Indian Ocean and its islands: Strategic Scientific and Historical perspectives, sage Publications, New Delhi.
4. Chawan S.V. (ed) (2015): Physical Geography, Paper I, Published by Director (I/C), Institute of Distance and Open Learning, University of Mumbai.
5. Fairbridge, R.W.ed) Encycloepadia of Oceanography, Reinholt, New York.
6. Sharma, R.C. (ed)(1985): The Oceans: realities and Prospects, Rajesh Publications, New Delhi.
7. Sengupta,R. and Desa E,(eds) (2001): The Indian Ocean: A Perspective Vol.,I and II Oxford and IBH Publishing Company Private Limited, New Delhi.
8. Paul, P.R.(1998): Invitation to Oceanography, Jones and Bartlett Publishing, Sudbury,

Massachusetts.

9. Rajgopalan, R (ed) (1996): *Voices for Oceans, A Report to the Independent World Commission on the Oceans*, International Ocean Institute, Operational centre, Madras, India.
10. Qasim, S.Z(1998): *Glimpses of Indian Ocean*, Universities Press(India) Limited, Hyderabad.