

F.Y.B.Sc Geography Paper II**Semester I****Paper II****Introduction to Physical Geography II (Geography of Atmosphere and Hydrosphere)****Course No :Gg112 No. of Credits: 2No. of hours:30**

Unit No.	Unit	Sub Unit	No. ofHours
1.	Introduction to the Atmosphere	a) Definition and evolution b) Composition of the atmosphere c) Structure of the atmosphere d) Weather and climate, elements of weather and climate	07
2.	Insolation	a) Definition and mechanisms of heat transfer: conduction, convection and radiation b) Heat budget of the Earth c) Factors affecting on horizontal distribution of temperature d) Vertical distribution of temperature- lapse rate and inversion of temperature	08
3.	Atmospheric Pressure and Wind System	a) Meaning and measurement of the atmospheric pressure Vertical and horizontal distribution of pressure- b) pressure belts	08
		c) Concept of pressure gradient and its relation with winds d) Type of winds- planetary winds, periodic winds (monsoon winds), local winds (land and sea breezes, mountain and valley winds).	
4.	Introduction to the Hydrosphere	a) Definition, hydrological cycle b) General structure of ocean floor c) Movements of ocean water i. Waves- characteristics of sea waves ii. Ocean currents- meaning, causes and types iii. Tides- meaning, causes and types	07

Reference books:

- Conserva H.T.**, 2004. Illustrated dictionary of Physical Geography, Author House, USA.
- Critchfield, H.J.**, 1997. General Climatology, Prentice Hall of India Pvt. Ltd, New Delhi. Dasgupta, A. and Kapoor, A.N., Principles of Physical Geography. Grald, S., General Oceanography.
- Gabler R.E.**, Petersen J.F. and Trapasso L.M., 2007. Essentials of Physical Geography (8th edition), Thompson, Brooks/Cole, USA.
- Garrett N.** 2000. Advanced Geography, Oxford University Press.
- Goudie A.**, 1984. The nature of the environment: an advanced physical geography, Basil Blackwell Publishers, Oxford.
- Hamblin W.K.**, 1995. Earth's Dynamic System, Prentice Hall, N J.
- Hussain M.**, 2002. Fundamentals of Physical Geography, Ravat Publication, Jaipur.
- Lutgens, F.K.** and Tarbuck, E.J., 2007. The Atmosphere, Pearson Prentice Hall, New Jersey. Pirie, R.G., Oceanography (Contemporary).
- Monkhouse F.J.** 2009. Principals of Physical Geogeaohy, Platinum Publishers, Kolkatta.
- Ross, D.A.**, 1988. Introduction to Oceanography. Prentice Hall, New Jersey. Sharma, R.C. and Vatel. M., Oceanography for Geographers.
- Strahler, A.A. and Strahler, A. N.**, 2002. Physical Geography: Science and Systems of the Human Environment, John Wiley and Sons, INC. Strahler, A.H. and Strahler, A. N., 1992. Modern Physical Geography, John Wiley and Sons, INC. Strahler, A.N., 1965. Introduction to Physical Geography, John Wiley and Sons,
- Strahler A.N., Strahler A.H.** 2008. Mpdern Physical Geography. John Wiley and Sons, New York.
- Ttrewartha, G.**, Introduction to Weather and Climate. King, C.A.M., Oceanography for Geographers. Lake, P., Physical Geography.