

5.3 GEO-G-CC-2-02-TH – Environmental Geography ◇ 60 Marks / 4 Credits

Unit I: Climatology

- P.C.
+
B.D.
M.D.
1. Insolation and Heat Budget. Horizontal and vertical distribution of atmospheric temperature and pressure
 2. Overview of planetary wind systems. Indian Monsoons: Mechanisms and controls
 3. Atmospheric disturbances: Tropical and temperate cyclones. Thunderstorms
 4. Overview of global climatic change: Greenhouse effect. Ozone depletion
 5. Scheme of world climatic classification by Köppen

Unit II: Soil Geography

- P.D.
+
R.B.
K.H.A.
M.D.
6. Factors of soil formation
 7. Soil profile development under different climatic conditions: Laterite, Podsol and Chernozem
 8. Physical and chemical properties of soils: Texture, structure, pH, salinity and NPK status
 9. USDA classification of soils. Soil erosion and its management

Unit III: Biogeography

- P.K.M.
+
P.G.
10. Ecosystem and Biomes. Distribution and characteristics of tropical rainforest; Savannah and hot desert biomes
 11. Plant types, occurrence and ecological adaptations: Halophytes, xerophytes, hydrophytes and mesophytes
 12. Biodiversity: Types, threats and management with special reference to India

References

Books:

- Ahrens, C.D. 2012. Essentials of Meteorology: An Invitation to the Atmosphere. 9th Ed, Cengage Learning.
- Barry, R.G, Chorley R.J. 2009. Atmosphere Weather and Climate. 9th Ed, Routledge.
- Chapman J.L., Reiz, M.J. 1993. Ecology: Principle and Applications, Cambridge University Press.
- Cox, B., Moore, P.D., Ladle, R. 2016. Biogeography: An Ecological and Evolutionary Approach, 9th ed, Wiley-Blackwell.
- Daji, J.A., Kadam, J.R., Patil, N.D. 1996. A Textbook of Soil Science, Media Promoters and Publishers Pvt Ltd.
- Dash, M.C., 2001. Fundamental of Ecology, 2nd edition, Tata McGraw-Hill, New Delhi
- Dey, N. K., Ghosh. P. 1993. India: A Study in Soil Geography, Sribhumi Publishing Company.
- Lal, D.S. 2012. Climatology. Sharda Pustak Bhawan.
- Lutgens, F.K., Tarbuck, E.J., Tasa, D.G. 2015. The Atmosphere: An Introduction to Meteorology, 13th Ed Pearson

PRINCIPAL
Dhruba Chand Halder College
P.O.-D. Barasat, P.S.-Jaynagar
South 24 Parganas, Pin-743372