Value-Added Course

VAC 103- Environmental Science3

Credits: 2

Full Marks- [75+25]

Unit-I: Environmental Science and Biodiversity

Scope, importance and multidisciplinary nature of environmental science; Concept, classification, causes for depletion and conservation of natural resources; Concept of an ecosystem; Types, component, structure and function of an ecosystem; Major ecosystems (terrestrial, aquatic, artificial); Ecological succession; Basics of biodiversity, Hotspot of biodiversity; Causes and effects of biodiversity loss.

Unit-II: Environmental Pollution and Waste Management

Sources, types of pollution; Causes of air pollution, effects of air pollution, and control of air pollution; Causes of water pollution, effects of water pollution, and control of water pollution; Causes of soil pollution, effects of soil pollution, and control of soil pollution; Causes of noise pollution, effects of noise pollution, and control of noise pollution; Solid waste-generation sources, characteristics, and disposal; solid waste management-principles, hierarchy, and techniques

Suggested Readings:

1. Basu, M. and Xavier, S. 2018. Fundamental of Environmental Studies. Cambridge University Press, Kolkata.
2. Bharucha, E. 2015. Text Book of Environmental Studies. University Press (India) Pvt. Ltd., Hyderabad
3. Vanramliana *et al.,* 2015. A text book of Environmental Science. Scientific Book Centre, Guwahati.
4. Daniel, D. C. 2014. Environmental Science. Jones and Bartlett Publishers, London.
5. Prasad, G. 2018. Handbook of Environmental Science. Discovery Publishing House, New Delhi
6. Rajagopalan. 2019. Environmental Studies: from crisis to cure. Oxford University Press, New Delhi.
7. Saha, T.K. 2013. Ecology and Environmental Biology. Books & Allied (P) Ltd. Kolkata.
8. Santra, S.C. 2018. Environmental Science. New Central Book Agency (P) Ltd., Kolkata.
9. Sharma, P.D. 2017. Ecology and Environment. (10th Revised Edition). Rastogi Publication, Meerut.
10. Allaby, M. 2019. Basics of Environmental Science, Routledge, London