SEMESTER- I

BEVS101: ENVIRONMENTAL AND ROAD SAFETY

Max. Marks : 50 Marks
Internal Assessment: 15 marks
End Semester Exam: 35 marks
Examination Duration: 1.5 hrs.

Total lectures: 24
Pass marks: 40%
Credits: 02

INSTRUCTIONS FOR PAPER SETTER
The question paper will consist of three sections A, B and C. Section A and B will have four questions from the respective sections of the syllabus and will carry 05 marks each. Section C will consist of 15 short-answer type questions which will cover the entire syllabus uniformly and will carry 15 marks in all.

INSTRUCTIONS FORCANDIDATES
Candidates are required to attempt two questions from each section A and B and the entire section C.

Section–A

Unit 1: Introduction to Environmental Studies

- Multidisciplinary nature of environmental studies. Definition and importance.
- Concept of Biosphere- Lithosphere, Hydrosphere, Atmosphere.

(01 Lectures)

Unit 2: Eco-System and Biodiversity Conservation

- Ecosystem and its components, Types of Ecosystems.
- Biodiversity- Definition and Value, Threatens to biodiversity and its conservation:

(02 Lectures)

Unit 3: Natural Resources: Renewable and Non- Renewable Resources

- Land resource and land use change; Land degradation, soil erosion and desertification.
- Deforestation: Causes and impacts due to mining, dam building on environment.
- Water: Use and over-exploitation of surface and ground water.
- Energy resources: Renewable and non-renewable energy sources.

(06 Lecture)

Unit 4: Environmental Pollution

- Environmental Pollution: Types, causes, effects and controls
- Solid waste management: Control measures of urban and industrial waste.

(03 Lecture)

Balar Navneet

Section-II

it 5: Environmental Protection laws in India

- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; water (Prevention and Control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act, International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity(CBD)
- Environmental policies and Practices: Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture.

(06 Lectures)

Unit 6: Human Communities and the environment

- Human population growth: Impacts on environment, human health and welfare, Sanitation and Hygiene.
- Disaster management: floods, earthquake, cyclones and landslides.
- Environmental movements: Chipko, Silent Valley, Bishnois of Rajasthan.

(03 Lecture)

Unit 7: Road Safety Awareness

- Concept and significance of Road safety.
- Traffic signs.
- Traffic rules.
- Traffic Offences and penalties.

(01 Lectures)

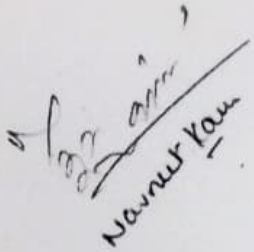
Unit 8: Stubble Burning

- Meaning of Stubble burning, impact on health and environment.
- Management and alternative uses of crop stubble.

(02 Lectures)

Fieldwork / Project Work

- Identify the natural resources of your area.
- Identify the sources of energy used in your area.
- Construction of food chain/ food web of the visited area.
- To identify the sources of pollution of your area.
- To record the AQI daily during stubble burning season and study its impact on health and environment.
- Common traffic violation and their penalties in and around your city.



Suggested Readings:

1. Carson, R.2002.Silent Spring. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. This Fissured Land: An Ecological History of India. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999.Global Ethics and Environment, London, Rout ledge.
4. Gleick, P.H.1993. Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security. Stockholm E Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. Principles of Conservation Biology. Sunder la Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K.2013.Threats from India's Himalaya dams. Science, 339: 36-37.
7. Kumar, N.2015.Environmental and Road Safety Awareness. R. D. Publications, Jalandhar.
8. Mc Cully, P.1996. Rivers no more: The environmental effects of dams (pp.29---64). Zed Books.
9. Mc Neill, John R.2000. Something New Under the Sun: An Environmental History of the Twentieth Century.
10. Odum, E. P., Odum, H.T. & Andrews, J.1971.Fundamentals of Ecology. Philadelphia: Saunders.
11. Pepper, I.L., Gerba, C.P.& Brusseau,M.L.2011.Environmental and Pollution Science. Academic Press.
12. Rao, M.N.& Datta, A.K.1987. Wastewater Treatment .Oxford and IBH Publishing Co. Pvt. Ltd.
13. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012.Environment. 8th edition. John Wiley & Sons.
14. Rosencranz, A.,Divan,S.,&Noble,M.L.2001.Environmental law and policy in India. Tripathi1992.
15. Sengupta, R. 2003. Ecology and economics: An approach to sustainable development. Oxford University Press.
16. Sharma, P. D. 2007. Ecology and Environment. Rastogi Publication.
17. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. Ecology, Environmental Science and Conservation. S. Cha Publishing, New Delhi.
18. Sodhi, N.S., Gibson, L. & Raven, P.H.(eds.).2013.Conservation Biology: Voices from the Tropics. John Wiley Sons.
19. Thapar, V.1998. Land of the Tiger: A Natural History of the Indian Subcontinent.
20. Warren, C.E. 1971.Biology and Water Pollution Control. WB Saunders.
21. Wilson, E.O. 2006.The Creation: An appeal to save life on earth. New York: Norton.
22. World Commission on Environment and Development. 1987. ,Our, Common Future. Oxford University Pre

Thanks