

SEMESTER II

ABILITY ENHANCEMENT COMPULSORY COURSE (AECC II) (Credits: Theory-02)

Marks : 100 (ESE: 3Hrs) =100

Pass Marks Th ESE = 40

ENVIRONMENTAL STUDIES AND MORAL ETHICS Theory: 30 Lectures

Instruction to Question Setter for End Semester Examination (ESE):

There will be objective type test consisting of hundred questions of 1 mark each. Examinees are required to mark their answer on OMR Sheet provided.

Course Objectives

1. To make students aware of Environmental issues and concern.
2. To enhance their ability to understand the environmental associated problems.
3. To impart ethical and moral teaching.

Course Outcome

1. There will be change in attitude towards environment and will actively participate in its improvements and problem solving.
2. There will be enhancement of Knowledge and Skill ultimately helping them becoming environmental conscious.
3. This will inculcate empathy, ethical and moral behaviour, human Values making them a responsible citizen.

ENVIRONMENTAL STUDIES

Unit 1 : Introduction to environmental studies

(2 lectures)

Multidisciplinary nature of environmental studies; Scope and importance; Concept of sustainability and sustainable development.

Climate change, global warming, ozone layer depletion, acid rain and impacts on human community

Unit 2 : Ecosystems and Biodiversity

(2 lectures)

Shyama Kant
15-6-2021 4
Memoer Secretary
Academic Council
Ranchi Women's College

Shyama
CHAIRPERSON
ACADEMIC COUNCIL
RANCHI WOMEN'S COLLEGE

Ecosystem- Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Types-Forest Ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems

Biodiversity and Levels of biological diversity : genetic, species and ecosystem diversity; Threats to biodiversity : Habitat loss, poaching of wildlife, man--wildlife conflicts, biological invasions; Conservation of biodiversity.

Unit 3 : Natural Resources: Renewable and Non--renewable Resources (4 lectures)

Land resources and land use change; Land degradation, soil erosion and desertification. Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.

Water: Use and over--exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter--state).

Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

Unit 4 : Environmental Pollution (2 lectures)

Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution

Nuclear hazards and human health risks

Solid waste management : Control measures of urban and industrial waste.

Pollution case studies.

Unit 5 : Environmental Policies & Practices (4 lectures)

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).

Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

Unit 6 : Human Communities and the Environment (4 lectures)

Human population growth: Impacts on environment, human health and welfare.

Resettlement and rehabilitation of project affected persons; case studies.

Disaster management : floods, earthquakes, cyclones and landslides.

Shirpa Kumar
15-6-2021 5
Member Secretary
Academic Council
Ranchi Women's College

Shirpa Kumar
CHAIRPERSON
ACADEMIC COUNCIL
RANCHI WOMEN'S COLLEGE

Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.

Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.

Environmental communication and public awareness.

MORAL ETHICS

Unit 7: Ethics

(3 lectures)

Concept, Principles & Policies (Non-Maleficence, Beneficence, Efficiency), Respect of Autonomy, Justice and Proportionality

Unit 8: Human Values

(3 lectures)

Anthropocentrism, Intrinsic Values & Holism and Individualism

Unit 9: Moral/Ethical Issues

(3 lectures)

Abortion, Embryo Test, Euthanasia, Sex before Marriage, The Death Penalty

Unit 10: Views of Moral thinkers & Philosophers :

(3 lectures)

Vardhman Mahavira – Panchmahavarta

M.K. Gandhi – Cardinal Values

Suggested Readings:

1. Raziuddin, M., Mishra P.K. 2014, *A Handbook of Environmental Studies*, Akanaksha Publications, Ranchi.
2. Mukherjee, B. 2011: *Fundamentals of Environmental Biology*. Silverline Publications, Allahabad.
3. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
4. Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
5. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London,
6. Routledge. Gleick, P. H. 1993. *Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security*. Stockholm Env. Institute, Oxford Univ. Press.
7. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
8. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36---37.
9. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29---64). Zed Books.

Shirpa Kaur
15-6-2021 6
Member Secretary
Academic Council
Ranchi Women's College

Shanvi
CHAIRPERSON
ACADEMIC COUNCIL
RANCHI WOMEN'S COLLEGE

10. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
11. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
12. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
13. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
14. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
15. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India*. Tripathi 1992.
16. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
17. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand 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*. Warren, C. E. 1971. *Biology and Water Pollution Control*.
20. WB Saunders. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
21. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University
22. Nityanand Mishr, Neetishastra (Sidhant aur Prayog), Motilal Banarasi Das, Delhi
23. Peter Singer, Applied Ethics, Oxford University Press, 1986
24. Jenny Krutzinna, Luciano Floridi- Editors, The Ethics of Medical Data Donation, Springer. com
25. Sinha, Harendra Prasad, Bhartiya Darshan ki Ruprekha, Motilal Banarasi Das, Delhi
26. Chourasia, M.P., Anuprayukt Neetishastra, Motilal Banarasi Das, Delhi
27. Callahan Daniel, Abortion: Law, Choice and Morality, New York, Macmillan, 1970
28. Lal, B.K., Contemporary Indian Philosophy, Motilal Banarasi Das, New Delhi
29. Louis P. Pojman & Peter Tramel, Moral Philosophy: A Reader, Fourth Edition, Hackett Publishing Company, Inc. Indianapolis/Cambridge
30. John Keown, Euthanasia, Ethics and Public Policy, Second Edition, Cambridge University Press.

Shima Kumar
15-6-2021
Member Secretary
Academic Council
Ranchi Women's College

Shima
CHAIRPERSON
ACADEMIC COUNCIL
RANCHI WOMEN'S COLLEGE