S.S.JAIN SUBODH P.G. (AUTONOMOUS) COLLEGE JAIPUR

(Affiliated to University of Rajasthan)

SYLLABUS

SCHEME OF EXAMINATION AND COURSES OF STUDY

FACULTY OF SCIENCE

DEPARTMENT OF ENVIRONMENTAL SCIENCE

FOUNDATION ENVIRONMENTAL STUDIES FOR B.A./B.COM./B.SC. (COMPULSORY IN SEMESTER IV)

As per New Education Policy -2020

Scheme of Examination:

(Attempt all Questions)

1. 100 Questions Objective/Multiple Choice based Answers 100x1/2 Marks=50
2. Supplementary/ Due Paper/Special Examinations will be resolute as per the institutions autonomous rules.
3. Grade/CGPA/Percentage/Division will be decided as per the autonomous guidelines of the institution.

Scheme of Examination for B.Sc. / B.Com. /B.A. (Compulsory in Semester IV)

Total of End Sem. Exam	**50**
Maximum Marks	**50**
Minimum Marks	**20**
Duration of Examination	**02 hr**

CREDIT SCHEME:

Credit of Course:	2 Credits
No. of Hours per week:	2 hrs
Total number of Teaching hours:	30 hrs

FOUNDATION ENVIRONMENTAL STUDIES FOR BA/ B.COM./ B.SC. (COMPULSORY IN SEMESTER IV)

Semester IV

FES 300: Environmental Studies

Contact Hours : 2.00
Max. Marks : 50.00 **Min Marks:** 20

Paper will have only 100 multiple choice questions to be evaluated on O.M.R. sheet. These O.M.R. sheets will be evaluated by authorized computer firm of the college examination department.

Objective: In spite of the deteriorating status of the environment, study of environment has so far not received adequate attention in our academic programmes. This programme aims at giving students a clear understanding of environmental concerns and to follow sustainable development practices. This will definitely help students develop an interdisciplinary global understanding of ecological and environmental problems

Unit I

- Definition, Scope and Importance of Environment
- Scope of Environmental studies and its Applications
- Importance with respect to the society
- Relationship of Environmental Studies with other subjects(Multidisciplinary nature of Environment)
- Ecosystem: structure and function
- Concept of Ecosystem and Biotic and abiotic components of Ecosystem
- Food chain and Food web,Ecological Pyramids and productivity
- Energy Flow and Biogeochemical cycle

Unit II

- Environmental pollution
- Water pollution: Definition, Sources and Effects
- Air Pollution- Definition, Sources and Effects
- Soil and Noise Pollution-Definition, Sources and Effects
- Solar Energy, Wind, Tidal, Hydro Bio energy and its use
- Biodiversity : Definition, genetics, species and ecosystem diversity and its Conservation
- Values of Biodiversity: Consumptive use, productive use, social esthetic and option values.
- Threats to Biodiversity –Habitat loss, poaching of wild life.

Unit III

- Natural Resources
- Renewable and non renewable
- Natural resources and associated problems.
- Forest Resources- Use and over-exploitation, deforestation and its effects
- Water Resources-Land degradation; Soli erosion and desertification.
- Mineral resources: Use and exploitation, environmental effects of extracting mineral resources

Unit IV

- Global Environmental Issues: Acid Rain, Ozone Depletion, Global Warming and Marine Issues
- Environmental Movements Chipko Movement and Appikko Movement ,Narmada bachao aandolan,
- Human Population and Environment
- From unsustainable to Sustainable development
- Concept of Sustainable development and world environmental Summits
- Goals of Sustainable development and its applications
- Water Conservation, Rainwater harvesting and Watershed management
- Social Environment
- HIV and other disease

ESSENTIAL READINGS:

- Concepts of Ecology; Kormondy Edward J; Pearson Education;4th Edition 2017
- Environmental Chemistry, De, A.K. New Age International, New Delhi: 2000.
- Concepts of Environmental Management for Sustainable Development; M.C. Dash; Dreamtech Press; 2019
- Fundamentals of Ecology; Eugene Odum; Cengage: 5 edn. 2017
- Environmental Chemistry. Sharma B.K., Geol Publ. House, Meerut, 2001.

REFERENCES:

- Concepts of Ecology; Kormondy Edward J; Pearson Education;4th Edition 2017
- Ecology and Environment; PD Sharma; Rastogi Publications: 13 edn. 2017
- Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. Environmental Encyclopedia, Jaico Publ.House, Mumbai, 2001
- Environmental Chemistry, De, A.K. New Age International, New Delhi: 2000.
- Fundamentals of Ecology; Eugene Odum; Cengage: 5 edn. 2017
- An Advanced Textbook on Biodiversity: Principles and Practice: KV Krishnamurthy; Oxford and IBH Publishing Co Pvt Ltd.: 2018
- Biodiversity: MN William; CBS 2019
- Noise Pollution and Its control: KJ Polak; CBS Publishers: 2020
- Matter Hazardous, Mhaskar A.K., Techno-Science Publication Environment and Human Health: Claudio Bini, Jaume Bech; Springer: 2014
- Environmental Chemistry. Sharma B.K., Geol Publ. House, Meerut, 2001.
- Biomedical waste Management: R. Radhakrishan; Sumit Enterprises: 2007