

**CLASS-XII**  
**Subject – Environmental Education**  
**Semester –I**

Theory Marks -35  
Project Work -15  
Total Marks -50

**Structure of Question Paper**

1. There will be one theory paper comprising of 16 questions. All questions will be compulsory.
2. Question No. 1-5 are very short answer type questions carrying 1 mark each. Answer to each question will be in one line or few words only.
3. Question No. 6-10 are short answer type questions carrying 2 marks each. Answer to each question will be in 20-30 words.
4. Question No.11-15 are short answer type questions carrying 3 marks each. Answer to each question will be in 40-50 words.
5. question No. 16 is long answer type question carrying 5 marks. Answer to this question will be in 80-100 words.
6. In question No 16 there will be 100% internal choice.
7. There will be no objective type question such as yes/no, tick/cross, fill in the blanks multiple choice, true/false etc.
8. The question paper should be strictly from the prescribed syllabus based on above mentioned guidelines.

**Theory**

Units under syllabus of semester-1

**Semester -1**

Unit wise distribution of marks will be as follows:

Unit I	Biodiversity	16 marks
Unit II	Environmental management	16 marks
Unit V	Environmental Actions	3 marks
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	<b>Total Marks</b>	<b>35</b>

**Syllabus**

**Unit 1 Biodiversity**

- concept and value of biodiversity
- Levels of biodiversity species eco and genetic.
- Balance in nature
- Biodiversity for sustenance of mankind.
- Resource limitation.
- Ecological role of biodiversity.
- Interdependence between different species.
- India as a mega diversity nation.
- Economic potential of biodiversity.
- loss of biodiversity-threatened, endangered and extinct.
- Strategies for conservation of biodiversity in situ and ex situ.
- Mitigating the people-wildlife conflict.

**Unit II Environmental Management**

- Need for environmental management vis-à-vis development.
- Aspects of environmental management-ethical, economic, technological and social.
- Legal provisions for environmental management.
- Approaches for environmental management-economic policies, environmental indicators, setting of standards, information exchange and surveillance.

**Unit V Environmental Actions**

- Meeting basic human needs-food water, shelter and fuel for all

**PROJECT WORK**  
**Semester-I**

Time: 1 <sup>1/2</sup> hrs.

Two projects	: 10 marks
Viva	: 5 marks
Total	: 15 marks

**Exemplar projects and Activities**

It is expected that students will undertake two projects or activities, one of which should be undertaken individual and they will prepare a report in each case. Teachers may plan and design projects and activities depending upon the local situation, available resources and environmental issues of concern. The projects and activities given below are only suggestive and not prescriptive.

- To study the status of an endangered species listed for region by collecting information through different sources and observation, if possible and to assess the reasons for its diminishing number. Suggest ways and means to protect the species.
- To conduct a survey of plants and trees in the locality and collect information about their cultural, economic and medicinal values from the local people and available literature. To prepare an action plan for the propagation of trees that is most valuable in terms of their cultural, economic importance and medicinal use.

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**Semester –II**

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**Theory**

Units under syllabus of semester-1

**Semester -1**

Unit III	Sustainable Development	13 marks
Unit IV	Sustainable Agriculture	12 marks
Unit V	Environmental Actions	10 marks

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**Total Marks            35**

**Unit III Sustainable Development**

- Concept of sustainable development.
- Concept of sustainable consumption.
- Need for sustainable development for improving the quality of life for the present and future.
- Challenges for sustainable development-political and administrative will, dynamic and flexible policies, appropriate technologies, comprehensive review and revision mechanism, human approach.
- Development of skilled manpower.
- Role of individual and community.
- Role of national and International agencies (both governmental and non-governmental).

**Unit IV Sustainable Agriculture**

- Need for sustainable agriculture
- Green revolution- impact on environment.
- Importance of soil for crops. Irrigation systems use of manure and fertilizers.
- Crop protection-major plant pests and diseases (wheat, rice, cotton sugarcane, potato), measures for their control-agrochemicals.
- Impact of agrochemicals on environment.
- Elements of sustainable agriculture-mixed farming, mixed cropping, crop rotation, biological and economic considerations, use of bio fertilizers and bio pesticides, biological pest control, integrated pest management.
- Application of biotechnology in crop improvement.
- Management of agricultural produce- storage, preservation, transportation and processing.

**Unit -V Environmental Actions**

- Population Control
- Changing consumption patterns.
- Prevention and control of environmental pollution,
- Waste management- reduces, re-use recycle.
- Community movement for ecological restoration and conservation of environment like Joint Forest Management (JFM), student's participation in tree rearing, social and agro-forestry.

**PROJECT WORK**  
**Semester-II**

Time: 1 <sup>1/2</sup> hrs.

Two projects	:	10 marks
Viva	:	5 marks
Total	:	15 marks

Example projects and Activities

- To study the practices followed in the region for storage, preservation, transportation and processing of perishable or non perishable farm products and to assess the extent of their wastage due to faulty practices.
- To make a list of raw materials used by the family for preparing different types of dishes. To identify the plants and animals and their parts from which food material is obtained. To make a list of plants on which the animals depend for their food. To prepare a report supported by diagrams/ photographs/ pictures/ graphs to focus on the importance of biodiversity in providing food to human population.
- To study the impact of changes in agricultural practices or animal husbandry including poultry, piggery, fishery and apiculture over a period of time in the local environment or in a given locality or village. The components for analysis may include; types of crops, land area under cultivation, mechanization, use of electricity, mode of irrigation and agrochemicals, agro wastes and their disposal, types of animal breed and their feed, types of shelter and health care, methods of preservation and processing of products and animal wastes and their disposal. To suggest an action plan for modifying the prevailing practices so as to make them environment friendly and sustainable.