

Roll No.: Date: **NORTHWEST ACCREDITATION COMMISSION, USA**  
**GRADE 10<sup>TH</sup> 2017-2018**

Subject- ENVIRONMENTAL STUDIES

Question Paper No. : 

E	S	2	6
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Subject Code : ES1002

Question Paper Code: 

E	V	6	1
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Total Time: 03.00 Hours.

Total Marks: 100

**GENERAL INSTRUCTIONS****1. OPENING AND CHECKING OF THE QUESTION-BOOKLET**

Break open the seal of the Question-Booklet only when the announcement is made by the Invigilator. After breaking the seal and before attempting the questions, student should immediately check for:

- The number of the printed page in the Question-Booklet is the same as mentioned on the cover page of the Booklet and
- Any printing error in the Booklet pages, if any.  
Any discrepancy or error should be brought to the notice of the Invigilator who will then replace the Booklet. No additional time will be given for this.

2. No student, without the permission of the Superintendent or the Invigilator concerned, is to leave his/ her seat or the Examination Room.

**3. FILLING UP THE REQUIRED INFORMATION ON QUESTION-BOOKLET AND ANSWER SHEET**

After breaking open the seal and checking the Booklet, student should:

- Fill up the **Question Paper No.** and **Question Paper Code** (mentioned on the cover of Question-Booklet) in the space provided on the First Answer Sheet.
- Fill up his/her Roll Number on the First Answer Sheet and on each Supplementary Answer Sheet, if taken.
- Student should mention the total number of **Supplementary Answer Sheet**, if taken, in the space provided on the First Answer Sheet and also fill up the Serial Number mentioned on each **Supplementary Answer Sheet** along with his/her Roll Number in the register maintained by the Invigilator. Student must tie all the Answer Sheets with the thread provided by the Invigilator.

**4. INSTRUCTIONS ABOUT QUESTION PAPER**

This Question Paper is divided into three Sections – A, B and C. All Sections are compulsory. Attempt all Sections as per instructions.

- Section A question No. 1 to 8 are very short questions carrying 3 marks each in approximately 20-30 words.
- Section B question No. 9 to 18 are short questions carrying 4 marks each in approximately 30-50 words.
- Section C question No. 19 to 24 are long questions carrying 6 marks each in approximately 80-120 words.

5. Student found in possession of Cellular Phone / Mobile Phone / Pager or any other Communication Device and/or any Book/Note whether using or not, will be liable to be debarred for taking examination(s) either permanently or for specified period or/and dealt with as per law or/and ordinance of the School/SERI according to the nature of offence, or/and he/she may be proceeded against and shall be liable for prosecution under the relevant provision of the Statutory Law.

**THE ANSWER SHEET IS TO BE RETURNED ON COMPLETION OF THE TEST**

This Question Paper MUST be attached with Answer Sheet

## SECTION A

Total number of questions: 8

Marks allocated to each question: 3

Total marks: 24

- Question 1.** Why is there a need to ban the use of polythene bags?
- Question 2.** What are the two functions of ecosystem?
- Question 3.** What percentage of solar energy is trapped and utilized by plants?
- Question 4.** Name the main source of energy in any self sustaining system.
- Question 5.** What is acid rain?
- Question 6.** Diagrammatically represent the transfer of energy in a food chain.
- Question 7.** Which of the following belong to the same trophic level: grasshopper, spider, grass, hawk, and lizard?
- Question 8.** Write an aquatic food chain.

## SECTION B

Total number of questions: 10

Marks allocated to each question: 4

Total marks: 40

- Question 9.** There are no predators for tiger or lion. Why?
- OR**
- How Garbage pollution can be controlled?
- Question 10.** Energy transfer is said to be unidirectional where as biochemical transfer is said be cyclic. Why?
- Question 11.** Where is ozone layer found in atmosphere? What is its importance? Write the harmful effects UV rays.
- Question 12.** Differentiate between biodegradable and non-biodegradable substances.
- Question 13.** State and explain the 10 per cent law.
- OR**
- What is a food chain? How does study of food chain in an area or habitat help us? Give an example of four-step food chain operating in a large lake.

**Question 14.** How is recycling of waste materials help in maintaining ecological balance?

**Question 15.** What is the difference between a food chain and a food web?

**OR**

DDT that was sprayed in minute amount on food plants was detected in high concentration in man? How did it happen? Explain.

**Question 16.** In terms of energy, which is at an advantageous position-a vegetarian or a non-vegetarian? Why?

**Question 17.** What are the major components of environment?

**Question 18.** Mention two economic policy measures to control pollution.

**OR**

Describe how ozone layer is formed?

### SECTION C

Total number of questions: 6	Marks allocated to each question: 6	Total marks: 36
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**Question 19.** Enumerate the effects of an increasing population on the environment.

**OR**

How can land use management help conserve soil?

**Question 20.** What is energy plantation? State three characteristic of plants that can be grown for this purpose.

**OR**

What are Gene Banks? State three objectives to maintain a Gene Bank.

**Question 21.** What is conservation tillage? State two advantages and two disadvantages of conservation tillage.

**OR**

How can land use management help conserve soil?

**Question 22.** China has legalized breeding of tigers for reaping economic benefits. Justify with reasons for or against the statement.

**OR**

What is meant by biodiversity? Explain the reasons for loss of biodiversity.

**Question 23.** What are non conventional sources of energy? Explain giving examples how these can help to sustain the environment.

**OR**

Explain the meaning of integrated nutrient supply programme. State its objectives.

**Question 24.** How can land use management help conserve soil?

**OR**

Explain the role of Biotechnology in achieving global food security.

**END OF THE QUESTION PAPER**

Sample Paper