#### CS/BCA/Even/4th Sem/HU-401/2014

#### 2014

### **Environment and Ecology**

Time Alloted: 3 Hours

Full Marks: 70

The figure in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable

# GROUP - A ( Multiple Choice Type Questions )

1. Choose the correct alternatives for the following:

10x1=10

- i) Which one of the following shows highest green house efficiency?
  - a) CH<sub>4</sub>

b) N,O

c) CO,

- d) O,
- ii) Composition of soil means
  - a) inorganic, organic matter, soil water, air and organism
  - b) A,B and C horizon
  - c) Humus, water, sand & gravel
  - d) Thermocline, Hypolimnion, Epilimnion
- iii) Stone cancer of the Taj Mahal is caused by
  - a) UV ray
- b) smog
- c) acid rain
- d) CFC
- iv) BOD stands for

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|       | <ul><li>a) Biological Oxygen</li><li>b) Biomedical Oxygen</li><li>c) Biochemical Oxygen</li><li>d) None of these</li></ul>         | Demand                     |                                       |        |      |
|-------|--|----------------------------|---------------------------------------|--------|------|
| v)    | The world Environment day is   |                            |                                       |        |      |
|       | a) January 31<br>c) January 5  | b) June 31<br>d)June 5     |                                       |        |      |
| vi)   | Enlargement of desert in Rajasthan is due to   |                            |                                       |        |      |
|       | <ul><li>a) Overgrazing</li><li>c) Urbanisation</li></ul>   | b) Mining<br>d) Industrial | isation                               |        |      |
| vii)  | Which gas is released when vegetable matters is thrown into a vat?   |                            |                                       |        |      |
|       | a) Sulphur dioxide<br>c) Methane   |                            | b) Carbon dioxide<br>d) None of these |        |      |
| viii) | The objective of environmental education is  |                            |                                       |        |      |
|       | <ul><li>a) Raise consciousnes</li><li>b) To teach environment</li><li>c) Create an environment</li><li>d) all the above.</li></ul> | entally appropri           |                                       |        | ons. |
| ix)   | Biogas is ty energy resource.  | pe and nuclear             | energy                                | is typ | e of |
|       | <ul><li>a) Conventional, non</li><li>b) non conventional,</li><li>c) both conventional,</li><li>d) Both non convention</li></ul>   | conventional,              |                                       |        |      |
| x)    | Which one is primary pollutant?  |                            |                                       |        |      |
|       | a) acrolein<br>c)O <sub>3</sub>  | b) PAN<br>d) CO            |                                       |        |      |
|       |  |                            |                                       |        |      |

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#### **GROUP - B**

## (Short Answer Type Questions) Answer any three of the following.

3x5=15

- 2. State the basic objectives of E1A.
- 3. Why does 5day BOD test occur?
- 4. Write a note on Environmental Ethics
- 5. Define ecosystem. What are its six structural components?
- 6. Describe nitrogen cycle with suitable flow diagram.

#### **GROUP - C**

### (Long Answer Type Questions) Answer any three of the following.

3x15=45

- 7. a) What do you mean by eutrophication of lake? Discuss briefly its effects on the aquatic life and water quality.
  - b) Write a short note on the, different layers of the earth's atmosphere stating their characteristics.
  - c) Define albedo. Calculate the temperature of earth surface taking reflection into account.

5+5+5

8. What are the different biotic components of an ecosystem. Define food chain. What is ecological pyramid? Describe pyramid of biomass with the help of a diagram.

3+3+3+6

 What is smog? Differentiate between primary pollutant and secondary pollutant in air pollution. What is the working principal of gravity settling chamber and cyclone separator? Illustrate with proper diagram.

3+4+4+4

10. a) Define energy flow in Ecosystem. Although the inorganic nutrients are recycled, the flow of energy is not Justify.

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- b) State the composition of Lithosphere. Write down the disadvantage of land filling.
- c) What are the different types of solid waste.
- d) Write down the methods of disposal of solid waste.

4+4+2+5

11. Write short notes (any three)

3x5=15

- a) Soot particle
- b) Biochemical Oxygen Demand
- c) Incineration
- d) The Carbon Cycle
- e) Sustainable Development

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