CS/BCA/EVEN/SEM-4/HU(BCA)-401/2018-19



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Paper Code: HU(BCA)-401

ENVIRONMENT AND ECOLOGY

Time Allotted: 3 Hours

The figures 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)

- Choose the correct alternatives for any ten. of the following:
 10 x 1 = 10
 - i) The atmospheric layer adjacent to the earth's surface is
 - a) Stratosphere
- b) Ozonosphere

Full Marks: 70

- c) Troposphere
- d) Lithosphere.
- ii) Which among the following is detrivore in ecosystem?
 - a) Green plant
- b) Earthworm

c) Lion

d) Cow.

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- iii) What is the definition of a community?
 - a) Two or more species of organisms in their environment
 - b) The interaction between living organisms and their environment
 - c) All the organisms of the same or closely-
 - d) Two or more populations of organisms.
- iv) Lapse rate refers to the rate at which
 - a) population increases in area with increase in temperature
 - b) temperature decreases with increase in elevation
 - c) temperature decreases with decrease in elevation
 - d) both (b) and (c).
- v) Which one is a primary pollutant?
 - a) Smoke

b) Carbone monoxide

c) PAN

- d) Carbon dioxide.
- vi) The main component of photochemical smog is
 - a) water vapour
- b) sulphur dioxide
- c) oxides of nitrogen
- d) all of these.
- vii) "Bhopal Gas Tragedy" was happened on
 - a) 9th June
- b) 3rd December
- c) 3rd November
- d) 12th December.
- viii) The skin cancer is caused by
 - a) the Greenhouse effect
 - b) UV Exposures
 - c) Ozone hole
 - d) Acid rain.

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- The term 'Eco-system' was opined by Odum b) Ernst Haeckel Arthur Tansley d) Zimmerman. X) Lithosphere consists of a) Crust b) Mantle c) Core d) All of these. xi) Food web is single food chain a)
 - disintegrated food chain b)
 - c) interconnected food chain
 - none of these. d)
- xii) In COD test the oxidant used is
 - a) very strong
 - b) very weak
 - moderate c)
 - none of these. d)

GROUP - B

(Short Answer Type Questions)

Answer any three of the following. $3 \times 5 = 15$ What is BOD ? What is COD ? Differentiate between 2. 1 + 1 + 3BOD and COD.

working principle of Electrostatic What is the 3. precipitator? Briefly explain with a neat diagram. 4 + 1"

Describe briefly any two methods of Biomedical waste 4. 2 1 + 2 1 " disposal.

What do you mean by Greenhouse effect ? Add a note 5. on Global warming. 2+3 .

Write a note on Eutrophication.

GROUP - C

(Long Answer Type Questions)

Answer any three of the following. $3 \times 15 = 45$

- 7. Write down the procedure with derivation of equation of seeded BOD test. Why is BOD test conducted for 5 days?
- 8. What are the segments of atmosphere? In which layer trailing of jet can be found? What are primary and secondary Air pollutants?

 10 + 2 + 3
- 9. Write down the primary, secondary and tertiary treatment of municipal sewage water with proper flow diagram. What are catalytic converter and fluidized bed combustion?

 (3+3+3)+(3+3)
- 10. What are the full forms of:
 - i) IUCN
 - ii) PAN
 - iii) ODS
 - iv) MIC
 - v) WWF.

Why Lead (Pb) is considered as heavy metal? What are the sources of Lead? What are the adverse effects of Lead on human health? How lead poisoning can be controlled? What are the harmful effects of Arsenic on human health? $(5 \times 1) + 1 + 1 + 3 + 3 + 2$

- 11. Write short notes on any three of the following: 3 × 5
 - a) Ozone depletion
 - b) Acid rain
 - c) Hydrological cycle /
 - d) Air pollution control techniques
 - e) Noise pollution control.