

Roll No.

Lingaya's University, Faridabad
B.Tech, 1st Year (Term – I)
Examination – October, 2010
Environmental Science & Ecology (CE-101)

Time: 3 Hours]

[Max. Marks: 100

Before answering the question, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note: All questions carry equal marks. Attempt five questions. Question 1 is compulsory. Select two questions from Section B & two from Section C.

SECTION – A

Q-1 Part-A. Select the correct answer of the following multiple choice questions. (10x1=10)

- (i) Soil conservation is a process in which
- | | |
|----------------------------------|------------------------------------|
| (a) Soil is aerated | (b) Soil erosion is allowed |
| (c) Sterile soil is made fertile | (d) Soil is protected against loss |
- (ii) Reed Swamp stage is
- | | |
|------------------|-------------------|
| (a) Seral stage | (b) Pioneer stage |
| (c) Climax stage | (d) Stable stage |
- (iii) Which of the following is a biodiversity hot spot in India?
- | | |
|--------------------|----------------|
| (a) Gulf of Mannar | (b) Panchmarhi |
| (c) Western Ghats | (d) Sunderbans |
- (iv) Who introduced the concept of biodiversity hot spots?
- | | |
|--------------------------|--------------------|
| (a) Christopher Columbus | (b) Norman Meyer |
| (c) WWF | (d) Charles Darwin |
- (v) Increasing skin cancer and high mutation rate are the result of
- | | |
|------------------------------|-------------------------------|
| (a) Ozone depletion | (b) Acid rain |
| (c) Carbon dioxide pollution | (d) Carbon monoxide pollution |
- (vi) Excess Fluorine in drinking water is likely to cause.
- | | |
|------------------------|-------------------------------|
| (a) Blue baby syndrome | (b) Change in taste and odour |
| (c) Fluorosis | (d) Intestinal irritation |

- (vii) Hot spot is an area which has
(a) A tourist place (b) High number of endemic species
(c) A desert (d) Hot water spring

- (viii) Asthma is caused by.
(a) Water pollution (b) Air pollution
(c) Nuclear pollution (d) Thermal pollution
- (ix) Harnessing of nuclear energy often causes
(a) Air pollution (b) Water pollution
(c) Thermal pollution (d) Noise pollution
- (x) A community that starts the process of succession in a habitat is called.
(a) Biotic community (b) Abiotic community
(c) Pioneer community (d) Artificial community

Part-B

- (a) What are the hotspots of biodiversity? Which are the hotspots found in India? (5)
(b) What causes itai-itai, minimata disease and blue baby syndrome? (5)

Section – B

- Q-2. (a) What are renewable and non-renewable resources? Give examples. (7)
(b) Explain the concept of food chain and food web. (6)
(c) Discuss India as mega biodiversity nation. (7)
- Q-3. (a) Discuss the merits and demerits of wind and tidal energy. (7)
(b) What is meant by in situ and ex-situ conservation of biodiversity? (6)
(c) What is meant by the acid rain? How does it occur? (2+5=7)
- Q-4. (a) How photochemical smog is formed? List particulate air pollutants. (4+3=7)
(b) What are the harmful effects of water pollution? (6)

- (c) Define Ecomark. What is green marketing? (2+5=7)

Section – C

- Q-5. (a) What is environment? Enumerate and discuss the various segments of environment. (2+4=6)
(b) What is solid waste management? Explain its causes, effects and control measures. (3+5=8)
(c) Explain the following in the brief
(i) Energy flow in ecosystem (ii) Advantages of big dams. (3+3=6)
- Q-6. (a) What is meant by ozone shield? How CFC's and ozone depleting substances affect ozone shield? (2+4=6)
(b) Discuss the causes and effects of global warming. (3+5=8)
(c) What is gaseous air pollutant? How do they effect human health? (3+3=6)
- Q-7. (a) What is geothermal and solar energy? Discuss its merits and demerits. (2+4=6)
(b) What is impact of modern agriculture on environment? (8)
(c) Discuss the role of information technology in environment protection and human health up-gradation. (3+3=6)
- Q-8. (a) Briefly explain with the help of diagram rain water harvesting. (2+4=6)
(b) What is meant by man- animal conflict? Explain the measures to curb man – animal conflicts. (3+5=8)
(c) Define ecological succession. Explain the phenomenon with hydrosere as an example. (3+3=6)