

Roll No. 

Total No. of Pages : 02

Total No. of Questions : 09

BMCI (2014 &amp; Onwards) (Sem.-2)

**ENVIRONMENTAL SCIENCE**

Subject Code : EVSC-101

Paper ID : [72463]

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A****Q1 Answer briefly :**

- a) Define ecosystem. What are its components?
- b) Differentiate between renewable and non-renewable resources giving examples of each.
- c) List four biodiversity hot spots of India.
- d) What are the major sources of Air Pollution?
- e) Explain the effects of Noise Pollution.
- f) Differentiate between soil erosion and land degradation.
- g) What is meant by sustainable development?
- h) *“Diminishing means and increasing wants are the two root causes of all environmental problems”* Comment on the statement.
- i) Establish environmental protection as part of human rights.
- j) Comment on the role of information technology in environment protection and human health.

**SECTION-B**

Q2 Population projections are quite often mathematically modelled with a logistic growth curve of the form  $dN/dt = rN(1 - N/K)$  where  $N$  is the population size,  $r$  is the growth rate and  $K$  is the carrying capacity of the environment. Prove that the maximum sustainable yield will be obtained when the population is half the carrying capacity.

(Maximum sustainable yield is defined as the maximum rate at which individuals can be removed from the system without reducing the population size.)

Q3 “*Agricultural Revolution though increased productivity, brought in environmental degradation*”. List out the major environmental problems associated modern agricultural practices.

Q4 Critically evaluate the issues in adoption of nuclear energy options.

Q5 Discuss the energy flow through a built environment.

Q6 Consider the vehicular exhaust as a source of air pollution and explain the mechanism of photochemical smog formation.

**SECTION-C**

Q7 Explain the importance of value education, awareness and community participation in environmental protection activities in India.

Q8 Discuss and differentiate between :

a) Carbon credits and carbon trading.

b) Population explosion and population stabilization.

Q9 Consider the problem of e-waste in your region. Evolve and discuss strategies to manage e-waste.