



## 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.