

Time: 2 Hours

Marks: 60

N.B.:

- (1) Q.1 is compulsory. Attempt any three questions from Q.2 to Q.6.
- (2) Draw neat diagrams wherever necessary.
- (3) Figures to the right indicate full marks.

Q.1 Attempt **any five** from the following:-

15M

- a Define ecosystem. List out any four factors which disturb the energy balance in the ecosystem.
- b What is conventional source of energy? Mention any four drawbacks of conventional sources of energy.
- c What is photochemical smog? Give any four sources and any four bad effects of photochemical smog.
- d State any four sources responsible for water pollution of Ganga river. Mention any two ways for elimination of water pollution of Ganga river.
- e State any six functions of central pollution control board.
- f What is soil pollution? State any four side effects of pollution.
- g Mention any three social and economical aspects of sustainable development.

Q.2 Attempt the following:-

15M

- (a) What is industrial waste water? Mention any three sources and three bad effects of industrial waste water. Mention any two ways for removal of industrial waste water pollution. 5M
- (b) Give the principle, construction, working and schematic diagram of steam turbine power plant. Mention any two advantages and disadvantages of steam turbine power plant. 6M
- (c) What is the importance of environmental education? How does Biomass and energy flow are related in ecological pyramid? 4M

Q.3 Attempt the following:-

15M

- (a) Explain the case study of Fukushima disaster (March, 2011). 5M
- (b) What is environmental degradation? Mention the causes (any four) and bad effects (any four) of depletion of natural water resources. 5M

(c) What is green building? Explain the concepts and give any four objectives of Green building. 5M

Q.4 Attempt the following:- 15M

(a) Give the schematic diagram of venturi scrubber used for purification of air pollutants. 6M

Give the principle, construction, any two advantages and disadvantages of venturi scrubber.

(b) What is indoor air pollution? Mention any four sources and four bad effects of indoor air pollution. 5M

(c) Write a short note on case study on Narmada Bachao Andolan. 4M

Q.5 Attempt the following:- 15M

(a) Explain the concept of flat plate collector with the help of its principle, construction, working, advantages (any two) and disadvantages (any two). 6M

(b) Define noise pollution. Mention any three sources and three adverse effects of noise pollution. 4M

(c) What do you mean by Solid waste? What are the different sources (any four) responsible for the solid waste? Explain composting in brief. 5M

Q.6 Attempt the following:- 15M

(a) Give the neat and labeled diagram for photovoltaic cell. Give the principle, construction, working, advantages (any two) and disadvantages (any two) involved in photovoltaic cell. 6M

(b) What is e-pollution? State any four sources and any four bad effects of e-pollution. 5M  
What are the preliminary actions to be taken to avoid e-pollution?

(c) What is acid rain? Give the reactions taking place in the environment during acid rain. 4M  
Give any two bad effects of acid rain.

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