

2022

M.A. / M.Sc.

2nd Semester Examination 2022

ECONOMICS

PAPER—ECO-203

ENVIRONMENT AND RESOURCE ECONOMICS

Full Marks : 50

Time : 2 Hours

*The figures in the right-hand margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**Group - A**

1. Answer any two questions.

2×2

(a) Define optimum pollution.

(Turn Over)

- (b) Explain the first law of thermodynamics in relation to environmental economics.
- (c) Distinguish between weak and strong concept of sustainable development.
- (d) Define total economic value of an environmental good.

2. Answer any *two* questions. 2×4

- (a) Explain the interlinkages between economy and environment.
- (b) Critically examine the Coase theorem.
- (c) What are the shortcomings of the traditional national income accounting methods with reference to the environmental issues? What are the ways by which the environmental issues can be incorporated in national income accounting?
- (d) Explain the Environmental Kuznets Curve (EKC).

3. Answer any *one* question. 1×8

- (a) Distinguish between the command and control

and the market based instruments for pollution control. How can you compare these two instruments on efficiency ground?

- (b) Explain the different steps involved in the Contingent Valuation Method (CVM) for valuation of environmental goods. What are the limitations of this method?

**Group - B**

4. Answer any *two* questions. 2×2
- (a) Discuss the concept and usefulness of MSY.
- (b) Define preservation value.
- (c) Briefly discuss the concept of the 'rate of exploitation'.
- (d) What are exhaustible resources?
5. Answer any *two* questions. 2×4
- (a) What are renewable resources? Determine the *growth curve* by considering a single species of renewable resource.

(b) Graphically explain the effort-growth equilibria of a renewable resource.

(c) Prove that for an exhaustible resource:

optimal price = marginal extraction cost + marginal user cost

(d) Discuss how the price of an exhaustible resource changes with the introduction of the backstop technology.

6. Answer any *one* question.

1×8

(a) Distinguish between open access and common property solution for a single species of a renewable resource. Does open access lead to extinction of the species? Justify your answer.

4+4

(b) Discuss how the Hotelling rule for an exhaustible resource changes with the change in the discount rate(s).

(Internal assessment - 10)