

2023

**M.A. 2<sup>nd</sup> Semester Examination****ECONOMICS****Paper – ECO- 203****(Special Exam)****Environmental and Resource Economics***Full Marks: 40**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 from the following: 2×2 =4
- (a) How does the first law of thermodynamics relate to environmental economics?
- (b) What is command and control method?
- (c) What is hedonic pricing method?
- (d) Define weak concept of sustainable development.
2. Answer any two questions from the following : 2×4 =8
- (a) Explain the concept of negative externalities in the context of environmental goods.

- (b) Explain the interlinkage between the economy and the environment.
- (c) Discuss the potential non-linear relationship between economic development and environmental degradation, as depicted by the Environmental Kuznets Curve.
- (d) Explain the key principles of the System of Environmental-Economic Accounting (SEEA)

3. Answer any one question from the following : 1×8 = 8

(a) Discuss the contingent valuation technique for estimating the economic value of environmental goods.

(b) Write notes on the following:

(i) Coase theorem.

(ii) Market based Instruments for pollution control. (4+4)

### Group-B

4. Answer any two questions: 2x2 = 4

(a) Why we need to manage renewable resources?

(b) Discuss the concept and usefulness of MSY.

(c) What are exhaustible resources?

(d) What is royalty?

5. Answer any two questions: 4x2 = 8

(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) Determine the profit maximizing solution for a renewable resource by considering the preservation value and time.
- (d) Discuss what happens to the Hotelling Rule when extraction costs are positive?

6. *Answer any one questions:*

**8x1 = 8**

- (a) What is open access solution of a renewable resource? Explain whether common property solution is same as the open access solution for a renewable resource? Does open access leads to extinction of the species? Explain. (3+3+2)
- (b) Discuss how the initial price,  $P_0$  is determined in the Hotelling Rule graphically for an exhaustible resource. Discuss how the Hotelling rule for an exhaustible resource changes with the change in the discount rate ( $s$ ). (5+3)