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14 (ECO-3) 3066

2022

**ECONOMICS**

Paper : ECO-3066

**(Environmental Economics)**

Full Marks : 80

Time : Three hours

***The figures in the margin indicate full marks for the questions.***

1. Answer ***all*** the questions :  $5 \times 4 = 20$
- (a) What are the problems that are traditionally addressed by resource economics ?
- (b) State and explain the characteristics of a well-defined property rights system.
- (c) Explain the features of the logistic growth curve of renewable resource. Also explain the terms 'sustainable yield' and 'maximum sustainable yield.'  
 $3+2=5$

*Contd.*

(d) What is an ecosystem and what are its components?  $2+3=5$

2. Answer **any three** out of the following :  $10 \times 3 = 30$

(a) Using suitable diagrams, explain why the efficiency of markets breaks down in the presence of an externality? Suggest *two* types of instruments for regulating markets in the presence of externality.  $7+3=10$

(b) What is a bid vehicle in contingent valuation method? Discuss the possible bidding mechanisms used, and also the possible biases involved.  $3+7=10$

(c) What are market-based environmental policy instruments? Discuss the advantages of market-based instruments over regulatory instruments.  $3+7=10$

(d) Distinguish the concept of gross capital formation from gross capital accumulation. Explain the reasons for incorporation of environmental costs and capital in environmentally adjusted economic aggregates. Briefly explain *any two* valuation techniques of natural resources.  $2+4+4=10$

(e) Discuss the significance of material recycling for the growth and revitalization of the components of ecosphere.

3. Answer **any two** of the following :  $15 \times 2 = 30$

(a) "Revealed preference approaches rely on observable market-based transactions of goods that are related to the consumption of intangible environmental goods." Elaborate this statement using *two* methods based on the revealed preference approach of environmental valuation.

(b) Explain the concept of sustainable development. Explain in this context the debate regarding a strong or a weak concept of sustainability. Explain also how the safe minimum standard approach can be an appropriate policy guide of resource management.

$2+7+6=15$

(c) Distinguish between environmental impact assessment and environmental impact appraisal. Discuss the steps involved in the process of environmental impact assessment, in detail.  $5+10=15$