M.A. Examination, 2014

Semester – III

Economics

Paper – XI (Group-B)

(Environment & Resource Economics)

Time: 3 Hours **Full Marks: 40**

Questions are of value as indicated in the margin.

Answer ***any four*** questions.

1. (a) Discuss the relationship between poverty and environment.

   (b) Define 'sustainable development'. Describe Daly's operational principles for sustainable development. 5+5=10

2. What are the characteristics of a well-defined property rights system? Show that under certain conditions individual agents in the economy can attain the socially optimal level of pollution without any government intervention. 5+5=10

3. Assuming two polluters and a targeted socially optimum level of pollution, show how efficiency can be achieved by a Pigovian tax on emissions. Why such efficiency is static in nature? 8+2=10

4. What is a system of Tradable Pollution Permit (TPP)? Explain how a system of Tradable Pollution Permits can achieve a targeted reduction in pollution at minimum cost. What is the advantage of this system over a tax based system? 2+4+4=10

5. Define 'effort' and 'sustainable yield' in the context of fishing. Derive the relationship between effort and sustainable yield. 3+7=10

6. What is a 'backstop' in the context of non-renewable resources? Show how presence of a backstop technology puts an upper limit on the time path of price of such a resource. 3+7=10

7. Describe the shape of the volume growth curve of timber against time. How it can be expressed in monetary terms? How you can derive the present discounted value for timber with a positive interest rate? Graphically indicate the effect of interest rate on the optimum harvesting time. 3+1+2+4=10

8. Distinguish between Revealed Preference and Stated Preference approaches of environmental valuation. Give an example of an ecosystem service that can be valued by Revealed Preference approach. Describe briefly how you will carry out the valuation exercise. 4+6=10