DOON UNIVERSITY, DEHRADUN
Final Examination, 2016
Department of Economics
School of Social Sciences
M.A III Semester
SSE-533: Environmental Economics

Time Allowed: 3 hrs.   **Max. Marks: 50**

Note: Attempt All Questions from Sections A,B,C.

SECTION : A
All questions are compulsory and carry equal marks.   *(Marks: 5x2=10)*

1. Trace the indifference curve between pollution and automobile.
2. What do you mean by market failure? Give two examples of market failure.
3. Trace the model linking economic activity with the environment.
4. How will the Marginal Abatement Cost (MAC) curve shift when there is a technology improvement.
5. Show how a common property resource differs from a public good with examples.

SECTION : B
Answer any FOUR.   *(Marks: 4x5=20)*

1. Given the Marginal Social Benefit and Marginal Social Cost curves, show at what level a society would accept a legal limit as allocatively efficient and why?
2. Define Total Social Benefit and Total Social Cost. Illustrate graphically how you would calculate the TSB and TSC and trace both the curves.
3. Given two environmental projects, A and B, explain using economic concepts how you will decide the feasibility of the two projects.
4. Discuss any four important current environmental problems.
5. What is emission charge? Using a suitable diagram discuss how a single polluter would decide between paying a tax and incurring the cost of abating.

SECTION : C
Answer any TWO.   *(Marks: 2x10=20)*

1. Using suitable economic models and diagrams wherever necessary show how incremental benefits and incremental costs are calculated.
   (Hint: use the marginal social cost and marginal social benefit functions)
   (5+5)
2. Suppose that a chemical manufacturing plant is releasing nitrogen oxides into the air and these emissions are associated with health and ecological damages. Economists have estimated the following marginal costs and benefits for the chemical market, where Q is the monthly output.

   $MSB = 50 - 0.4Q$

MSC=2+0.4Q
MEB=0
MEC=0.2Q

a) Find the competitive equilibrium price and quantity and the efficient equilibrium price and quantity. **6**

b) Define product charge. Find the value of a product charge that would achieve an efficient solution. **4**

(Use suitable diagram to support your answer)

3. What is meant by property right? Using hypothetical demand and supply functions and the marginal functions, discuss how negotiation takes place without government intervention between two parties using the concept of property rights.

(2+4+4)