

THE OPEN UNIVERSITY OF SRI LANKA
 M.Sc IN ENVIRONMENTAL SCIENCES
 LEVEL 9 – 2018/19
 DSP9502 - ENVIRONMENTAL ECONOMICS AND MANAGEMENT
 OPEN BOOK TEST (OBT)



TIME: ONE HOUR AND THIRTY MINUTES

DATE: 23.02.2019

TIME: 1.00 PM – 2.30 PM

Instructions:

- Answer three (03) questions only
- Each question carries equal marks

1. What do you understand by Resource Economics? Explain the different types of natural resources?
2. “Renewable resources are less attractive compared to non-renewable resources for energy needs. Many people claim initial investment is high and wide usability is limited”. Give your ideas for and against the above statement.
3. Give your critical views on the statement “mankind cannot survive without natural resources”. In doing so, you may focus on the exponential population growth with receding doubling interval of population where natural resources alarmingly deplete.
4. i. Assume there is an economy which sells only oil for maintaining the growth at a considerable good level. Therefore, the conservation of oil is a predominantly important fact for the economy. The Reserve Bank maintain its interest rate at 7%. The total stock of oil at present is 100 barrels.

The price is determined for period one by the relationship $P_1 = 240 - q_1$ and for the period two by $P_2 = 240 - q_2$. Remember the Hotelling’s rule in the lesson 1 is $r = \frac{P_2 - P_1}{P_1}$ where r is the interest rate. Using the information given, find the optimal allocation of oil between period 1 and period 2 of this economy.

- ii. Discuss the results in (i) about the resource allocation. Are the allocated amounts of oil between the two periods same? If not, explain why they are different.

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