



00035



THE OPEN UNIVERSITY OF SRI LANKA
POSTGRADUATE DIPLOMA IN ENVIRONMENTAL SCIENCES
LEVEL 6
NEP 1302/1206 – ENVIRONMENT, SOCIETY AND DEVELOPMENT
FINAL EXAMINATION – 2010 (OPEN BOOK EXAMINATION)
DURATION: THREE HOURS

Date: 26 February 2011

Time: 1.30 a.m. – 4.30 p.m. (3hrs)

ANSWER ANY FOUR (04) QUESTIONS ONLY

**PLEASE ENSURE THAT ANSWERS FOR EACH QUESTION SHOULD
BE GIVEN IN SEPARATE BOOKS**

1. “We need to remind ourselves that when we talk of the technological, we are not talking of the purely technological – that no such beast exists. Rather we are saying that the technological is social. Already, then, we find that we need to blur the boundaries of categories that are normally kept apart. There is no real way of distinguishing between a world of engineering on the one hand and a world of social on the other” – Wiebe E. Bijker and John Law.
Discuss the above statement.
2. “It is not possible to have an ever growing production and consumption cycle leading to unlimited growth”. Use your knowledge on entropy and disorder to discuss the above statement.
3. a). The table 1 below (taken from your lesson material) provides an indication of the historical energy consumption pattern of human beings. Does this information help us to draw a positive picture about the future of humankind? Discuss!

b). Identify issues involved with the table 1 given below as a source providing credible scientific data.

Table: 1

Era	Daily consumption to prepare food	Daily consumption for agriculture	Daily consumption for industry	Daily consumption for transport
Primitive man	2			
Hunter gatherer	3	2		
Primary agricultural man	4	4	4	
Advanced agricultural man	6	12	7	1
Industrial man	7	32	24	14
Technological man	10	66	91	63

Unit: 1000 k cal

4. The soil is enriched by a combined process of minerals and micro-organisms present in the soil. The applications of certain chemicals harm these helpful micro-organisms. This makes the soil infertile therefore requiring more and more external synthetic inputs. Discuss this problem and suggest remedial actions possible for resource poor-farmers.

5. Waste water treatment, to meet environmental standards, is an expensive operation in most industries. There are two solutions to the problem one is to generate less waste and the other is to make use of waste generated.
 Discuss these two possibilities by taking a specific industry into account.

6. a). List five industries, identify the waste streams in each of these industries and suggest appropriate control measures to minimize such waste.
 b). Explain in detail why the air in the working environment should be maintained free of toxic particles?