



THE OPEN UNIVERSITY OF SRI LANKA
 POSTGRADUATE DIPLOMA/MSC IN ENVIRONMENTAL SCIENCES
 LEVEL 6
 NEP 1302/1206 – ENVIRONMENT, SOCIETY AND DEVELOPMENT
 FINAL EXAMINATION – 2012/2013 (OPEN BOOK EXAMINATION)
 DURATION: THREE HOURS

Date: 13 July 2013

Time: 09.30 a.m. – 12.30 p.m. (3hrs)

ANSWER ANY FOUR (04) QUESTIONS ONLY
PLEASE ENSURE THAT ANSWERS FOR EACH QUESTION SHOULD BE GIVEN IN
SEPARATE BOOKS

1. (a) Explain the relationship between entropy and order. (10 marks)
- (b) Build the argument that life forms do not contradict the second law of thermodynamics. (60 marks)
- (c) Would the model of "open system" allow us, human beings, to disregard limitations set by the second law of thermodynamics? Express your opinion with justification (30 marks)
2. In 2008 six green peace activists caused more than £35,000 worth damage to a coal-fired power station in Kent, England as a part of their campaign on climate change. The jury at Maidstone Crown Court, England that heard the case in a verdict cleared all six of them of criminal damage. Jurors accepted defense arguments that the six had a "lawful excuse" to damage property to prevent even greater damage caused by climate change. – *Environmental Editor*
- Write a short article to news paper "*Environment Editor*" critically analyzing the judgment. You can argue in favour of the judgment or against. (100 marks)
3. (a) Describe how far the contemporary human society is dependent on oil? (15 marks)
- (b) It is common knowledge that the oil reserves would not last long at the current rate of consumption. It is also a common observation that most of us are still not worried about this fact and that we will have to live in a world without oil, soon. Why do you think is the reason for this mindset? (20 marks)
- (c) There is a school of thought that renewable energy sources could replace oil (and also gas and coal in a medium and a long term scenario). There is another school of thought that even renewable

energy sources would not provide an acceptable answer and we will have to go back to uncomplicated life styles depending on less energy use. Develop separate arguments to defend both schools of thought. (65 marks)

4. (a). Identify the characteristics of Asiatic mode of production. (40 marks)

(b) Core values based on which the United Nations Millennium Development Goals (MDGs) were developed in the year 2000 for the period of 2000-2015 were freedom, equality, solidarity, tolerance, and respect for nature and shared responsibility. It can reliably be assumed that these core values will remain on the post-2015 UN development agenda. Assess the ability of the characteristics of Asiatic mode of production to address these core values and write a short essay. (60 marks)

5. Sustainable agriculture has many meanings. One is long-term economic sustainability, taking into account externalities, and the other is environmental sustainability in the form of regeneration of resources used.

Discuss these two aspects and explain how they differ.

Focus on productivity in the two systems taking into account the ratio of total input and output, as the ultimate measure. (100 marks)

6. "The construction industry as government and private- sector firms erecting buildings for habitation or for commercial purposes and public works such as roads, bridges, tunnels or dams. Construction workers also clean hazardous waste sites". Considering above statement, summarize the wide variety of health hazards of construction workers and propose mitigation measures you could accommodate to mitigate the impacts on worker's health. (100marks)