

THE OPEN UNIVERSITY OF SRI LANKA
Faculty of Engineering Technology
Department of Mathematics and Philosophy of Engineering



**Postgraduate Diploma in Environmental Science/ Master of
 Science degree in Environmental Science**

Final Examination (2016/2017)
NEP1210: Environment, Society and Development

(Open Book Examination)

Date: 18th November 2017 (Saturday)

Time: 9:30 am – 12:30 pm

- *Please answer a total **FOUR** questions only from the seven questions given below.*
- *Questions belonging to sections **A, B, C, D and E** should be answered in separate booklets. Mark your index number and the question number you are answering clearly on each booklet. Make sure that you submit **FOUR** booklets.*
- *Please do not copy directly from the text. If you have to quote, do so in inverted commas.*

Section A

Q1.

- i) Discuss the main concerns of ethical principles on environmental conservation.
- ii) Discuss how the ethical principles could help to reduce the gap/ disparities in Urban and rural area in a developing country. (100 marks).

Section B

Q2.

Fossil fuel based energy generation is in crisis as a result of limitations in fossil fuel stocks and environmental pollution caused. Renewable energy sources such as wind, solar and biomass provide alternative avenues for energy generation. When it comes to biomass, one option could be growing of dedicated crops such as corn for ethanol and diesel production. Another is to use agricultural waste as fuel. The third alternative is to grow quick harvesting leguminous trees, as an inter-crop in farming, for energy production.

Discuss these options with reference to the effects on the environment, including food production and health issues that would play a role in selecting the most beneficial choice for a given situation. (100 marks)

Section C**Q3.**

"Sustainable development is not a suitable model for a country such as Sri Lanka. Sri Lanka needs to achieve a certain standard of development prior to thinking about sustainability". Discuss this statement with reference to ideas about modernity and development. (100 marks)

Q4.

Examine the feminist critique of development. Using one of the theoretical perspectives on gender that you are familiar with assess the situation in Sri Lanka in relation to the situation of women. Focus specifically on non-economic indicators of development. (100 marks)

Section D**Q5**

Describe the governing factors of consumerist society and explain how we can reduce the impacts of consumerism on environment by changing existing patterns of consumerism. (100 marks)

Q6

Ecological farming/ alternative agriculture is widely suggested as a solution to unforeseen problems of green revolution. Do you agree with this or not? Discuss. (100 marks)

Section E**Q7**

a) The Narmada Valley Development Project is the single largest National Development project in India. It is one of the largest hydroelectric projects in the world and will displace approximately 1.5 million people from their land in three states (Gujarat, Maharashtra, and Madhya Pradesh). The environmental costs of such a project, which involves the construction of more than 3,000 large and small dams, are immense. The project will devastate human lives and biodiversity by inundating thousands of acres of forests and agricultural land. [60 marks]

- (i) Discuss the environmental (Biological and Physical) impacts that can be expected due to construction of dams on the Narmada River.
- (ii) Discuss how such activities impact on social environment of this project area.

b) The Uma Oya Hydropower Complex (also internally called Uma Oya Multipurpose Development Project or UOMDP) is an irrigation and hydroelectric complex currently under construction in the Badulla District of Sri Lanka. List down major short-term environmental impacts that have been arisen from this Multipurpose Mega project and discuss ways in which such impacts can be overcome. [40 marks]