



THE OPEN UNIVERSITY OF SRI LANKA  
 BACHELOR OF TECHNOLOGY – LEVEL 05  
 FINAL EXAMINATION – 2009  
 MPJ5233 – TECHNOLOGY, SOCIETY & ENVIRONMENT  
 DURATION: FOUR HOURS (ESSAY TYPE PAPER)  
 OPEN BOOK EXAMINATION

Date: 04<sup>th</sup> March 2010

Time: 09.30 hrs. - 13.30 hrs.

The questions are grouped in the following manner:

Part A : Q1 – Q4

Part B : Q5 – Q9

Part C : Q10 -Q11

Mark your Index Number and the Part you are answering on the answer book provided to you.

Please answer a total of six questions, choosing not more than three from any single part. Do not use more than 300 words to answer any question.

Please do not copy directly from a text. If you have to quote, please do so within inverted commas.

**Part A**

1. a) Explain what is meant by the “Paradigm of Icarus” (50 marks)  
 b) Give 4 different examples from modern day life where the means of reaching ends (or goals) have become ends, themselves. (50 marks)
2. a) Discuss why renewable resources have received world attention during recent times. (60 marks)  
 b) Discuss why renewable resources are not in use as expected irrespective of the attention received as explained above. (40 marks)
3. a) Explain the second law of thermodynamics using the concept order/disorder. (40 marks)  
 b) “The second law of thermodynamics contradicts the theory of evolution, conceptually”. Are you in agreement? Justify your answer, briefly. (60 marks)

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4. The Brundtland Commission's Report (1987) defined sustainable development as the process of development that "meets the needs of the present without compromising the ability of future generations to meet their own needs"
- Discuss the impact of discounting rates used in project evaluation on achieving the objective of sustainability. (Hint: you can discuss the types of engineering projects favoured when using different discounting rates such as 4% and 12%). (100 marks)

**Part B**

5. A project is going to be launched by a government organization to minimize the traffic congestion in the Colombo city. Imagine that you are a member in the EIA Team of the Project and briefly discuss the positive and negative impacts of the traffic congestion reduction project. List out the alternatives you could apply to minimize the traffic congestion in the Colombo city. (100 marks)
6. Write short notes on (100 marks)
- Biodegradable organic waste
  - Population change
  - Analysis of environmental effects
  - Acts of transformation
7. "The use of mobile phone could be hazardous to the user". Please comment on this statement. (100 Marks)
8. The Open University administration needs to improve the visual environment of the Science and Technology new building. Assume that you are the secretary of the environmental society of the university and have to submit your suggestions to improve the visual environment of the building. Please submit your comments briefly. (100 Marks)
9. "Lunawa" lagoon is one of examples for the aquatic ecosystem. Briefly discuss the abiotic and biotic components of the "Lunawa" lagoon and the major threats to "Lunawa" lagoon at present. (100 marks)

**Part C**

10. Dialog towers are painted in Red and White from Colombo to Nuwara Eliya. Suggest a color which suits the aesthetics environment better and give reasons. (100 marks)
  
11. What do you understand about Climate Change? Some regions of the world are getting intensely cold. Please submit your comments briefly. Consider all five bio geochemical cycles in your answer. ( 100 marks)