



THE OPEN UNIVERSITY OF SRI LANKA  
BACHELOR OF TECHNOLOGY – LEVEL 05  
FINAL EXAMINATION – 2009  
MPJ5233/5263 – BACHELOR OF SOFTWARE ENGINEERING  
DURATION: FOUR HOURS (ESSAY TYPE PAPER)  
OPEN BOOK EXAMINATION

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Date: 23<sup>rd</sup> May 2010

Time: 09.30 hrs. - 13.30 hrs.

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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.

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**Part A**

1. (a) Write guidelines for identifying each of the following types of needs
  - (i) Two guidelines to identify a basic need
  - (ii) Four guidelines to identify a legitimate need. (42 marks)
  
- (b) In your opinion do basic needs of human beings change over time depending on the complexity of a society? Do legitimate needs also change in the same way? Please discuss your answers using examples. (58 marks)
  
2. "Human industrial activity cannot grow limitlessly".  
Explain the previous statement using the order/disorder interpretation of the second law of thermodynamics and the concept of "open systems". (100 marks)

3. Soon after assuming duties the new Minister for Power and Energy has declared his vision for the Sector; to provide electricity to all, to make the Ceylon Electricity Board a profit making institution and to develop the renewable energy sector so that the country will be less dependent on conventional energy sources. Discuss whether this target is achievable within a term of 6 years and whether the 3 objectives are in harmony with each other. (100 marks)
4. "People do not have a simple and a single approach to value the future. Are you in agreement or not? Use the debate on discounting rates in project evaluation to discuss your answer. (100 marks)

### **Part B**

1. a). What are the objectives of conducting EIA and the advantages and disadvantages of EIA? ( 40 marks)  
 b). List the one of development project on software engineering field and discuss briefly steps by steps how you assess the positive and negative impacts of the project. (60 marks)
2. Write short notes on three of the following; ( 100 marks)  
 a) Visual pollution  
 b) Cost-benefit analysis  
 c) Water cycle  
 d) Initial Environmental Examination
3. a).What are the impacts of mobile phone on society? (40 marks)  
 b). Discuss the ways and means of control the negative impacts of mobile phones. (60 marks)
4. a). Describe the structure and function of the forest ecosystem. (60 marks)  
 b). Explain the significance of preserving balance of various kinds of ecosystems. (40 Marks)
5. Briefly discuss the effects of over consumption and increasing population on the environment, society and resources? (100 marks)

**Part C**

6. Why do you think that a simple application of modern science will not help solve the world's present environmental problems? (100 marks)
  
2. Write down what you understand by Non-renewable energy sources, continuously renewable sources and non-nonrenewable sources. ( 100 marks)