SOUTH EASTERN UNIVERSITY OF SRI LANKA

FIRST EXAMINATION IN BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY FOR MANAGEMENT STUDIES) – 2007/2008
SEMESTER – II, AUGUST/SEPTEMBER 2009

ITMS 1253 – OBJECT ORIENTED SYSTEM ANALYSIS AND DESIGN

Answer **all** questions.

Time: 03 hours

01

1. What do you mean by a system?
2. Why do users, clients and developer disagree on the nature and causes of the problem in Information system development?
3. Describe the phases of System Development Life Cycle.
4. What are the advantage and disadvantage of traditional waterfall life cycle?
5. What is prototyping?

(20 Marks)

02

1. Define object class and instance.
2. How does the object oriented concept of messaging help to encapsulate the implementation .
3. What is polymorphism.
4. What rules best describe the relationship between a subclass and supper class.

(20 Marks)

03

1. What is the different between diagram and a model.
2. Explain the UML activity diagram with suitable example.
3. What is UML use case diagram and when should we use it.
4. What is the purpose of producing use case scrip and different between the <<extend >> and <<include>> relationship in use case diagram.

(20 Marks)

04

Read the following description of a requirement for a food company., and decide which parts of it are functional requirement and which are non functional requirements

a. The allocation of staff to production lines should be mostly automated. A process will be run once a week to carry out the allocation based on the skills and experience of operatives . Details of holidays and sick leaves will also be taken into account. A first draft allocation list will be printed off by 12.00 noon on Friday for the following week. Only staff in production planning will be able to amend the automatic allocation to fine-tune the list. Once the amendment have been made, the final allocation list must be printed out by 5.00 pm . The system must be able to handle allocation of 100 operatives at present, and should be capable of expansion to handle double that number.

b. Name the five requirement capturing techniques and list advantages and disadvantages of each

(20 Marks)

05

1. What is an Entity relationship Diagram Explain with suitable example.
2. Distinguish between Unary, Binary & Ternary relationships.
3. Discuss the skills which are essential to a system Analyst.
4. Explain about Normalization.

(20 Marks)