

EASTERN UNIVERSITY, SRI LANKA

External Degree Second Examination in Science 2002/2003

Second Semester - (October-November, 2007)

EXTCS 205 –Software Engineering Principals

Answer all questions

Time allowed: One (01) hour

Q1)

a)
Give Six (06) General Data flow rules and four (04) Data Flow Diagram (DFD) Principals.

(40 Marks)

b)

Draw a context Diagram and a Level 0 DFD to model the Supermarket System described below.

A supermarket has devised a scheme to encourage customer loyalty. To register for the scheme, a customer must supply their name, address, and telephone number. Each registered customer is assigned a unique Personal Identification Number (PIN). A customer can present this PIN to the counter staff so that the value of a purchase is recorded. At the end of every year the supermarket intends to award surprise gifts to the three customers who spend the most money in the supermarket; it also intends to award Rs 1000.00 shopping voucher to every customer who spend more than a threshold amount (e.g. 150,000.00) during the year. The total against each PIN is reset on the first day of every year.

(60 Marks)

Q2)

a) Give three (03) software development life-cycle models and explain one life-cycle model clearly.

b) Write short notes on different kind of Testing Process of Software.

c) What are the advantages and disadvantages in Object Oriented Design (OOD)?

d) How does the concept of an Object in the Object-Oriented model differ from the concept of an entity in the Entity-relational model?

(4 X 25 Marks)