



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2008/2009 – 2<sup>nd</sup> Year Examination – Semester 4

**IT4303 : Rapid Application Development**  
**PART 2 - Structured Question Paper**

16<sup>th</sup> August, 2009  
(ONE HOUR)

To be completed by the candidate

BIT Examination Index No: \_\_\_\_\_

**Important Instructions:**

- The duration of the paper is **1 (one) hour**.
- The medium of instruction and questions is English.
- This paper has **03 questions** and **06 pages**.
- **Answer all questions.**
- **Write your answers** in English using the space provided **in this question paper**.
- Do not tear off any part of this answer book.
- Under no circumstances may this book, used or unused, be removed from the Examination Hall by a candidate.
- Note that questions appear on both sides of the paper.  
If a page is not printed, please inform the supervisor immediately.

**Questions Answered**

Indicate by a cross (x), (e.g. ☐) the numbers of the questions answered.

To be completed by the candidate by marking a cross (x).	Question numbers			
	1	2	3	
To be completed by the examiners:				

1)

- a) When would one follow the Rapid Application Development (RAD) approach in developing a software project?

[05 Marks]

**ANSWER IN THIS BOX**

- b) Name the four (4) dimensions of Development speed.

[04 Marks]

**ANSWER IN THIS BOX**

- c) Name two (2) constraints in Rapid Application Development.

[06 Marks]

**ANSWER IN THIS BOX**

- d) What is the use of function points in relation to software project estimation? Give a method to determine function points in a program.

[10 Marks]

**ANSWER IN THIS BOX**

2)

- a) Give three (3) causes of overly optimistic scheduling of projects.

[05 Marks]

**ANSWER IN THIS BOX**

- b) Give two (2) characteristics of productive teams.

[06 Marks]

**ANSWER IN THIS BOX**

- c) List two (2) reasons for teams to fail.

[06 Marks]

**ANSWER IN THIS BOX**

- d) Give two (2) characteristics of agile software development.

[08 Marks]

**ANSWER IN THIS BOX**

- 3) Consider the following scenario.

It is required to create a computer system for a company which processes customer orders. Each customer is identified with a unique Customer Id and belongs to a particular customer group. Each group of customers enjoy a common set of benefits. Customer orders placed can be in one of two states, 'Preliminary' or 'Confirmed'.

The diagram given below is a guideline to design a GUI (Graphical User Interface) to order a report which will function as follows.

The report can be ordered either based on *Customer group* or *Customer Id* where the default is based on *Customer group*. Controls with labels *From Customer group* and *To Customer Group* can be specified to denote the starting customer group and ending customer group. If the report is based on *Customer Id*, then controls with labels *From customer* and *To customer* can be specified.

By default, only the orders in state 'confirmed' are listed in the report. However, the user has the option to select all orders by specifying the control specified by the label *Include preliminary*. Once the Customer Orders Report form is filled in, the control *OK* can be used to preview and print the report.



Customer Orders Report

Report Based On

B

Group

XXXXX

A

Customer Id

XXXXX

Filters

D

From Customer

XXXXX

F

From Customer Group

XXXXX

H

Include Preliminary

XXXXX

E

To Customer

XXXXX

G

To Customer Group

XXXXX

Ok

I

Cancel

a) Select the most appropriate GUI elements to design the above Customer Orders Report from NetBeans GUI controls palette and fill the following table.

[30 Marks]

**ANSWER IN THIS BOX**

Control Id	GUI Element
A	
B	
C	
D	
E	
F	
G	
H	
I	

- b) A report is ordered on the basis of *Customer group* or *Customer Id* and hence only one of the controls B or C is allowed to be selected at a particular time. How can this be achieved in designing the form in NetBeans?

[10 Marks]

**ANSWER IN THIS BOX**

- c) When the report is selected to be based on *Customer group*, the filters *From customer* and *To Customer* need to be disabled and the filters *From customer Group* and *To Customer Group* need to be disabled when the basis of the report is *Customer Id*. How can this be achieved in NetBeans?

[10 Marks]

**ANSWER IN THIS BOX**

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