



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2012/2013 – 2nd Year Examination – Semester 4

**IT4304: Rapid Software Development
PART 2 - Structured Question Paper**

21st July, 2013
(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 **3 questions** and **8 pages**.
- **Answer all questions.** All questions **do not** carry equal marks.
- **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 (×), (e.g.) the numbers of the questions answered.

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

- 1) (a) Briefly describe what “Agile Software Development” is? (10 marks)

ANSWER IN THIS BOX

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- (b) Provide 5 examples for early implementations of “Agile Software Development”? (5 marks)

ANSWER IN THIS BOX

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(d) What are the four main facts stated in the “Agile Manifesto”? (8 marks)

ANSWER IN THIS BOX

2.

(a) What is meant by “Software Prototyping” in the context of software engineering? (3 marks)

ANSWER IN THIS BOX

(b) When prototyping is used in rapid application development, it is often said to be iterative until done. What is meant by “iterative until done” in the point of views of the developers, designers? (6marks)

ANSWER IN THIS BOX

- (c) Provide 5 advantages of “Software Prototyping” over traditional software development methodologies. (10 marks)

ANSWER IN THIS BOX

- (d) Name an Integrated Development Environment (IDE) that you have used for rapid application development and briefly explain how it facilitated your work. (6 marks)

ANSWER IN THIS BOX

- (e) You are asked to develop an automated system for operating and recording the output of an X-Ray machine in a hospital. Your program needs to feed its output to existing hospital management system as well. Is Rapid Application Development (RAD) suitable for the above Project? Justify your answer (5marks)

ANSWER IN THIS BOX

- (3)
(a) What are the characteristics of Scrum Development? Provide 5 of them? (10 marks)

ANSWER IN THIS BOX

- (b) “Requirements Gold Plating” and “Developer gold plating” are two classic mistakes in software engineering. What do they mean? (6 Marks)

ANSWER IN THIS BOX

- (c) What is “Function Point (FP) Analysis / Estimation” in the context of rapid application development? (4 marks)

ANSWER IN THIS BOX

Use the following FP Multiplication Table to answer the questions below.

Program Characteristic	Functional Point		
	Low Complexity	Medium Complexity	High Complexity
Number of Inputs	×3	×4	×6
Number of Outputs	×4	×5	×7
Inquiries	×3	×4	×6
Logical Internal Files	×7	×10	×15
External Interface Files	×5	×7	×10

A medium complexity software project is having 8 inputs, 5 outputs, 2 inquires, 3 logical internal files and 6 external interface files. The influence multiplier of this project is 1.12.

- (d) Calculate the Function Point Total for the above software project. (10 marks)

<u>ANSWER IN THIS BOX</u>

- (e) Calculate the Adjusted Function Point Total for the above software project. (5 marks)

<u>ANSWER IN THIS BOX</u>
