



UNIVERSITY OF COLOMBO, SRI LANKA



UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2008/2009 – 2nd Year Examination – Semester 4

***IT4303: Rapid Application Development
Part 1: Multiple Choice Question Paper***

**16th August, 2009
(ONE HOUR)**

Important Instructions :

- The duration of the paper is 1 (one) hour.
- The medium of instruction and questions is English.
- The paper has 20 questions and 5 pages.
- All questions are of the MCQ (Multiple Choice Questions) type.
- All questions should be answered.
- Each question will have 5 (five) choices with one or more correct answers.
- All questions will carry equal marks.
- There will be a penalty for incorrect responses to discourage guessing.
- The mark given for a question will vary from 0 to +1 (*All the correct choices are marked & no incorrect choices are marked*).
- Answers should be marked on the special answer sheet provided.
- Note that questions appear on both sides of the paper.
If a page is not printed, please inform the supervisor immediately.
- Mark the correct choices on the question paper first and then transfer them to the given answer sheet which will be machine marked. Please completely read and follow the instructions given on the other side of the answer sheet before you shade your correct choices.

1) Rapid application development

- (a) does not depend on the skills of staff and management.
- (b) does not depend on the complexity of the domain.
- (c) uses evolutionary prototyping.
- (d) relies on small well trained teams.
- (e) builds usable systems within a short period of time.

2) Which of the following can be considered as mistakes in software development?

- (a) Developers are always fascinated by new technology and are anxious to try out new features of their programming language or environment.
- (b) Early end user involvements in software projects in order to identify project requirements
- (c) Consideration of more complex requirements which the users are not interested in, right from the beginning
- (d) Cutoff design reviews and code reviews in order to achieve a perceived schedule advantage
- (e) Developers do not show the final round up changes of the prototype to the customer.

3) Rapid application development is suitable when

- (a) reliability of the developed system is not critical.
- (b) the product distribution is wide.
- (c) project scope is constrained.
- (d) the application is running stand alone.
- (e) the application must interoperate with existing systems.

4) Which of the following is an/are open source RAD(Rapid Application Development) tool(s)?

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|---------------------|-------------|--------------|
| (a) JBuilder | (b) Eclipse | (c) NetBeans |
| (d) VisualBasic.net | (e) Prolog | |

5) Consider the statement “Teams should be structured to maximize the development speed”. Which of the following is /are **NOT** an essential characteristic(s) of a well structured team?

- (a) Accountability for work
- (b) Clear roles and responsibilities
- (c) Effective communication system
- (d) Monitoring team performance not individual performance
- (e) Fact based decision making

6) From among the following, select the characteristics of SCRUM projects.

- (a) Flexible deliverables and the content of the deliverables are dictated by the environment.
- (b) Collaboration is required during the project.
- (c) Success of the projects is less compared to traditional methods.
- (d) Inflexible schedule and the deliverable required as initially planned
- (e) Frequent intermediate deliveries with working functionality

7) In a daily-build-and-smoke-test,

- (a) build the product everyday.
- (b) developers smoke-test their code after adding to the system.
- (c) a good build should pass the smoke-test.
- (d) a developer should be in charge of the smoke-test.
- (e) smoke-test must evolve as the system builds.

8) Consider the diagram given below.



What agile software development method is illustrated in the above diagram?

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|----------------------------------|-------------------------|
| (a) Throwaway prototyping | (b) Scrum |
| (c) Daily build and Smoke method | (d) Extreme programming |
| (e) Evolutionary prototyping | |

9) Excessive schedule pressure on project developers

- (a) report more bugs in projects.
- (b) improves the motivation.
- (c) reduces creativity.
- (d) results in leaving the problem-personal.
- (e) results in poor relationships with the management.

10) Which of the following statements is(are) true related to throwaway prototyping?

- (a) Project risks are reduced.
- (b) Maintainability of the project is improved.
- (c) It provides resistance to creeping requirements.
- (d) Prototype is evolved into a final product.
- (e) Time and cost required to develop the final system can be estimated from the prototype.

11) Select the correct statement(s) in relation to NetBeans Integrated Development Environment.

- (a) NetBeans IDE 6.x comes as platform independent.
- (b) NetBeans is proprietary software.
- (c) The NetBeans installer does not need a full JDK (Java Development Kit) installation to run.
- (d) NetBeans Installer (6.X) allows user to install only one instance of NetBeans IDE of particular version on the same system.
- (e) Easy to create Java beans

12) Identify Agile software development methods from the following.

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|--------------------------|----------------------|
| (a) Scrum | (b) Waterfall method |
| (c) Extreme programming | (d) Spiral method |
| (e) Open unified process | |

13) Select the correct statement(s) related to JUnit testing in NetBeans.

- (a) Full support for JUnit testing is bundled directly into NetBeans.
- (b) A JUnit test can be created for a single java class.
- (c) A JUnit test can be created for a package.
- (d) An empty JUnit test cannot be created.
- (e) It is impossible to debug a JUnit test.

14) Which of the following is(are) supported by NetBeans IDE?

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|---------------------------|---------------------|
| (a) Cost estimation | (b) Version control |
| (c) Scheduling | (d) GUI building |
| (e) Testing and debugging | |

15) Select the correct feature(s) related to debugging in NetBeans.

- (a) Monitoring the value of a local variable
- (b) Tracing program execution across multiple threads
- (c) Executing code one line at a time
- (d) Pausing program execution on a specific line
- (e) Evaluating the return value of a method without stepping inside it

16) Consider the following statements.

- (i) Thread breakpoints can be useful in programming client-server applications.
- (ii) The debugging session starts precisely with the first line of code every time.
- (iii) Method breakpoints allow to halt program execution, when program execution enters or exists one or more methods of a specific class.

Which of the above statements is (are) true?

- | | | |
|------------------------|----------------|-------------------------|
| (a) (i) only. | (b) (ii) only. | (c) (i) and (iii) only. |
| (d) (i) and (ii) only. | (e) ALL | |

- 17) Consider the following statement.
In a NetBeans project, one cannot see the tables in the database after connecting the database.

Which of the following can be (a) valid reason(s) related to above statement?

- (i) Connecting to the wrong schema
- (ii) Driver not supporting the database metadata
- (iii) NetBeans not supporting the database

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|--------------------------|----------------|------------------------|
| (a) (i) only. | (b) (ii) only. | (c) (i) and (ii) only. |
| (d) (ii) and (iii) only. | (d) ALL. | |

- 18) With which of the following UML diagrams can one work in NetBeans?

- | | | |
|---------------|----------------|-----------|
| (a) Component | (b) Deployment | (c) Class |
| (d) Activity | (e) Sequence | |

Questions 19) and 20) are based on the following scenario.

In a doctor channelling system, the user should be able to view the appointment details such as patient name, id number, contact address, telephone number for a particular doctor on a given date.

- 19) What is the GUI control in NetBeans that has to be used to choose a particular doctor?

- | | | |
|---------------|---------------|----------|
| (a) Check box | (b) Combo box | (c) List |
| (d) Label | (e) Table | |

- 20) What is the GUI control in NetBeans to be used to display the appointment details for the doctor on a given date?

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|---------------|---------------|----------|
| (a) Check box | (b) Combo box | (c) List |
| (d) Label | (e) Table | |
