



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY  
(EXTERNAL)

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*IT4305: Rapid Software Development  
Multiple Choice Question Paper*

**01<sup>st</sup> October, 2016**  
**(ONE HOUR)**

**Important Instructions :**

- The duration of the paper is **1 (one) hour**.
- The medium of instruction and questions is English.
- The paper has **30 questions** and **09 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 –1 (*All the incorrect choices are marked & no correct choices marked*) 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. The Agile Manifesto has 4 statements of values. Which of the following is/are value(s) of Agile Manifesto?

- P) Customer collaboration over processes and tools
- Q) Individuals and interactions over contract negotiation
- R) Responding to change over following a plan
- S) Working software over comprehensive documentation

- (a) P only.
- (b) R only.
- (c) P and S only.
- (d) Q and R only.
- (e) R and S only.

2. What is the primary purpose of 'value stream mapping' used in Lean Software development?

- (a) To amplify learning.
- (b) To deliver as fast as possible.
- (c) To empower the team.
- (d) To identify and eliminate waste.
- (e) To visualize the workflow.

3. Match the roles in Extreme Programming (XP) planning in left-hand side (P-R) with their duties (i-iv) in the right-hand side.

- |                     |   |
|---------------------|---|
| P) On-site customer | i) provides estimates and suggestions in planning game              |
| Q) Programmer       | ii) continues to review and improve the vision and the release plan |
| R) Customer         | iii) responsible for making business decisions                      |
| S) Team             | iv) creates a detailed plan for the upcoming week                   |

- (a) P – i, Q – iv, R- iii, S – ii
- (b) P – ii, Q – iii, R – iv, S – i
- (c) P – iii, Q – i, R – ii, S – iv
- (d) P – iii, Q – ii, R – i, S – iv
- (e) P – iv, Q – ii, R – i, S – iii

4. SCRUM is

- (a) a traditional software development life cycle.
- (b) an Agile framework to develop software.
- (c) an approach to design software products.
- (d) an extension of 'waterfall software development methodology'.
- (e) an iterative incremental process for software development.

5. Which of the following term best describe the mode of product delivery in Scrum?
- (a) Automatically
  - (b) Incrementally
  - (c) Iteratively
  - (d) Simultaneously
  - (e) Statically
6. Scrum is well-known for its capability to welcome requirement changes. Which is/are (an) event(s) of scrum provide a formal opportunity for inspection and adaptation?
- (a) Project Planning
  - (b) Release Train
  - (c) Sprint Retrospective
  - (d) Sprint Review
  - (e) The Daily Scrum
7. In Scrum, who is responsible for ensuring that user acceptance tests are run prior to the review?
- (a) Business Analyst
  - (b) Lead Quality Assurance engineer
  - (c) Product Owner
  - (d) Project Manager
  - (e) Scrum master
8. Time-boxing is a significant principle of Scrum. An event which is time-boxed,
- (a) has a minimum duration.
  - (b) should always be held at the same time.
  - (c) should be continued till the given time finishes.
  - (d) should exceeds a given period of time.
  - (e) should has a maximum duration.
9. Which of the following is/are (a) responsibility(ies) of a 'Scrum Master'?
- (a) Assist the team in achieving the iteration goals.
  - (b) Defining the acceptance criteria for each product backlog item.
  - (c) Focusing on helping everyone to understand and embrace the Scrum values, principles, and practices.
  - (d) Responsible for all estimates of the Product Backlog items.
  - (e) Responsible for removing impediments / obstructions that inhibit the team's productivity.

10. 'Pre-game' is the stage focuses on understanding the project before starting sprint  
Which of the following is/are main output(s) of a 'Pre-game'?

- (a) Project Schedule including high-level milestones
- (b) Quality Assurance Test Strategy/Plan
- (c) Software Requirements
- (d) Sprint backlog
- (e) Sprint Release Notes

11. Which of the following are the main 'artifacts' defined in Scrum?

- i) Product Backlog
- ii) Sprint Backlog
- iii) User Story cards
- iv) Burn-Down Chart
- v) Gantt chart

- (a) i, ii, and iii
- (b) i, ii, and iv
- (c) i, ii, iii, and iv
- (d) i, iii, and iv
- (e) All of the above

12. Which of the following is/are **true** about a Development Team in Scrum?

- i). Team should be cross functional and self-organizing.
- ii). Team is responsible for product backlog grooming.
- iii). A team member can be the Scrum Master in special cases.
- iv). Team decides when to start and end product developments.

- (a) i and ii only
- (b) i and iii only
- (c) i, ii and iii only
- (d) ii and iv only
- (e) All of the above

13. Scrum planning is one of the most critical activities of Scrum. Which is/are principle(s) of Scrum planning?

- (a) Encourage long and accurate releases over more frequent and smaller releases.
- (b) Keep important options open until the last responsible moment.
- (c) Once the plan is fixed, no one can change the plan.
- (d) Scrum believes up-front plan is always helpful and a must.
- (e) Use validated learning to continuously produce better, more useful plans.

14. Inflow strategies help organizations decide when to 'go/no-go' decisions. Which are the following is/are inflow strategy(ies) in portfolio planning?

- (a) Apply the Economic Filter
- (b) Balance the Arrival Rate with the Departure Rate
- (c) Establish a Work In Progress limit
- (d) Focus on idle work instead of idle workers
- (e) Plan for Smaller, More Frequent Releases

15. Who are the participants of product planning (Envisioning)?

- (a) Development Team
- (b) Internal Stakeholders
- (c) Scrum Master
- (d) Specialists in different areas
- (e) The Product Owner

16. Which of the following statement(s) is/are **true** (a) statement(s) regarding 'sprint'?

- i). Details will emerge during Sprint, but no new work or substantially changed work will be added.
- ii). Once team committed, customer cannot terminate the Sprint under any circumstances.
- iii). Customer can make any changes to the remaining Product Backlog before the start of the next Sprint

- (a) i and ii only
- (b) i and iii only
- (c) ii only
- (d) ii and iii only
- (e) All of the above

17. Which of the following is/are (an) input(s) to release planning?

- (a) High-level product backlog
- (b) Initial sprint goal
- (c) Product Roadmap
- (d) Sprint retrospective
- (e) The product vision

18. The purpose of the Sprint Retrospective is to,

- (a) create a plan for implementing improvements to the way the Scrum Team does its work.
- (b) criticize each other in order to find the best performer in the last sprint.
- (c) identify and order the major items that went well and potential improvements .
- (d) inspect how the last Sprint went with regards to people, relationships, process and tools.
- (e) recheck the shipped produced and log errors.

19. What is/are the elements that you can see in a 'burndown chart'?

- (a) Ideal effort as a guideline
- (b) Leave dates of members of the developing team.
- (c) Milestones of the product
- (d) Remaining effort
- (e) Sprint dates

20. What is/are the correct order of the following events in a scrum?

- i). Sprint Planning
- ii). Creating Product Backlog
- iii). Sprint Review
- iv). Sprint Backlog
- v). Sprint Retrospect

- (a) i, ii, iii, iv, and v
- (b) ii, i, iv, iii and v
- (c) ii, iv, i, iii and v
- (d) ii, iv, iii, i and v
- (e) v, ii, i, iii and iv

21. At daily scrum development team uses some tools to communicate the team progress. Which of the following tool(s) is/are used at daily scrum?

- (a) Burn down charts
- (b) Burn up chart
- (c) Cost estimation chart
- (d) Product backlog
- (e) Task Board

22. Assume that a Scrum team is developing an e-book store. Which of the following can be considered as 'user stories' of that scrum development team?

- i. As a Customer, I want to see the most popular books so that I can purchase one or many of them.
- ii. As the product owner, I want to deploy the website as soon as possible so that I can conclude this sprint.
- iii. As a Customer, I want this site to use 'cool colors' so that I can use this site more easily.
- iv. As an author, I want to sort most sold books from my books so that I can see most favorite once first.
- v. As an author, I want to see most trending books of the week so that I can think of a plot for my next book.

- (a) i , iii and iv
- (b) i , ii and v
- (c) i ,iii, iv and v
- (d) i , iv and v
- (e) Above all

23. What is/are the activity(ies) performed during the 'Sprint review'?
- (a) The Product Owner discovers and evaluates the potentially shippable software made by the team
  - (b) The Scrum Team demonstrates the product increment, preferably to other stakeholders, and gets feedback to improve the product
  - (c) The Team Members must do a PPT presentation explaining what they have built
  - (d) The most important activity in this meeting is to make sure that we are on track and that we will hit the release date
  - (e) Mainly discuss on 'what went right?', 'what went wrong?' and 'what could be improved in the next sprint?'
24. Which of the following values used by Extreme Programming to guide the development.
- (a) Communication, Collaboration, Courage, Plan, Feedback
  - (b) Communication, Collaboration, Tools, Respect, Feedback
  - (c) Communication, Simplicity, Feedback, Courage, Respect
  - (d) Process, People, Plan, Courage, Respect, Collaboration
  - (e) Simplicity, Collaboration, Process, Plan, Tools
25. Which of the following is/are considered as the duty(ies) of a coach in an Extreme Programming team?
- (a) Establishes coding standards at the beginning of the project.
  - (b) Helps customers to identify holes in the requirements.
  - (c) Helps the team to interact with the rest of the organization.
  - (d) Helps the team to start their process by arranging a shared workspace.
  - (e) Makes sure that the team includes the right people.
26. Each iteration of an Agile project starts with a brief planning session and ends with a product demonstration and retrospective. Identify the correct order of conducting an iterative retrospective.
- (a) Brainstorming, Prime Directive, Mute Mapping, Retrospective Objective.
  - (b) Brainstorming, Retrospective Objective, Prime Directive, Mute Mapping.
  - (c) Prime Directive, Brainstorming, Mute Mapping, Retrospective Objective.
  - (d) Retrospective Objective, Brainstorming, Prime Directive, Mute Mapping.
  - (e) Retrospective Objective, Prime Directive, Brainstorming, Mute Mapping.

27. What is the frequency of software integration suggested by the Extreme Programming (XP)?

- (a) After every two days.
- (b) Daily.
- (c) More often than daily.
- (d) Twice a week.
- (e) Weekly.

28. There are five practices of Extreme Programming (XP) and they are listed below (i-v). Match them with the correct definitions listed below (P-Q).

- i. Pair Programming
- ii. Energized Work
- iii. Informative Workspace
- iv. Root-cause Analysis
- v. Retrospectives

P. .... doubles the brainpower available during coding

Q. .... provides a way to analyse and improve the entire development process

R. .... notifies the current status of the work

- (a) P - i, Q - ii, R- v
- (b) P - i, Q - v, R- ii
- (c) P - ii, Q - iv, R- iii
- (d) P - ii, Q - iii, R- i
- (e) P - ii, Q - i, R - iii

29. In Extreme Programming, iterations follow a strict schedule. Identify the correct method of planning an iteration.

- (a) Commit to delivering stories, Develop stories, Prepare release, Demonstrate release, Hold retrospective
- (b) Commit to delivering stories, Hold retrospective, Develop stories, Prepare release, Demonstrate release
- (c) Develop stories, Commit to delivering stories, Hold retrospective, Prepare release, Demonstrate release
- (d) Develop stories, Commit to delivering stories, Prepare release, Demonstrate release, Hold retrospective
- (e) Hold retrospective, Develop stories, Commit to delivering stories, Prepare release, Demonstrate release



30. | What is the key difference of the responsibility between a Project Manager and a Scrum Master (Team Leader) in an Agile project?

- (a) None. It is basically the same.
- (b) Project Manager communicates with project governance authorities when necessary.
- (c) Scrum Master manages and monitors project risks.
- (d) The Project Manager creates the detailed delivery plans while the Team Leader monitors execution within the team.
- (e) The Project Manager monitors the benefits in the business case.

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