Beijing-Dublin International College

_____

SEMESTER I FINAL EXAMINATION - 2018/2019

_____

School of Computer Science

COMP3005J Agile Processes

HEAD OF SCHOOL NAME: Prof. Pádraig Cunningham

MODULE COORDINATOR NAME*: Dr. Anca D. Jurcut

Time Allowed: 60 minutes

Instructions for Candidates

Answer all questions. Total marks available 60.

BJUT Student ID: _____   **UCD Student ID:** _____

I have read and clearly understand the Examination Rules of both Beijing University of Technology and University College Dublin. I am aware of the Punishment for Violating the Rules of Beijing University of Technology and/or University College Dublin. I hereby promise to abide by the relevant rules and regulations by not giving or receiving any help during the exam. If caught violating the rules, I accept the punishment thereof.

Honesty Pledge： _____ **(Signature)**

Instructions for Invigilators
Non-programmable calculators are permitted.
No rough-work paper is to be provided for candidates.

Obtained score

QUESTION 1

Which of the following statements appear in the twelve principles represented in the agile Manifesto? Check all that apply.

☐ The most efficient and effective method of conveying information to and within a development team is to use email.

☐ Developers and business people should work separately and have planned weekly interactions.

☐ Deliver working software frequently, from a couple of weeks to a couple of months.

☐ Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

☐ Simplicity (the art of maximizing the amount of work done) is essential.

[2 marks]

Obtained score

QUESTION 2

Which of the following sentences about agile methods is true? Check all that apply.

☐ Crystal is a name for a set of methods using different colours to reflect the size and criticality of a software project.

☐ Kent Beck, one of the proponents of XP, suggests that contracts for software development should fix time, cost, quality, and precise scope in advance.

☐ The Lean Software method was inspired by techniques first applied at Toyota and the automobile industry.

☐ Most of Scrum's practices are about how to write high-quality code.

[2 marks]

Obtained score

QUESTION 3

Which of the following is not an Agile value?

☐ Iterative development.

☐ Focus on quality, achieved through testing.

☐ "Big Upfront" steps.

☐ Limited, negotiated scope.

[2 marks]

Obtained score

QUESTION 4

Which Scrum role is responsible for accepting or rejecting the result of an iteration in a project?

☐ Product owner.

☐ Product manager.

☐ Requirements master.

☐ Requirements manager.

☐ Self-organising team.

☐ None of the above.

[2 marks]

Obtained score

QUESTION 5

Which of the following tasks are typically assigned to an embedded customer in an XP project? Check all that apply.

☐ Help developers to write tests.

☐ Try system early to provide feedback.

☐ Review developers' code.

☐ Provide an interface with higher management.

[2 marks]

Obtained score

QUESTION 6

What's the issue with user stories according to the course? Check all that apply.

☐ User stories don't really represent what the user wants.

☐ User stories are to requirements what tests are to specifications: just examples.

☐ User stories may misrepresent the abstraction they are supposed to describe.

☐ User stories tend to change over time, becoming invalid.

[2 marks]

Obtained
score

QUESTION 7

Which of the following items can be found in an agile project's "open workspace"?

☐ Server room.

☐ Story board with user story cards movable from "not started" to "in progress" to "done" columns.

☐ Meeting room with flipcharts and whiteboards.

☐ Iteration burndown charts.

[2 marks]

Obtained
score

QUESTION 8

How would you differentiate use cases from user stories? Check all that apply.

☐ A use case is always written mainly by the customer, while user stories are written by the team members.

☐ They are approximately equivalent artifacts.

☐ A use case is typically more complete and accurate than a user story.

☐ A use case provides the answer to a developer's question about customer requirements without requiring further interaction with the customer.

[2 marks]

Obtained
score

QUESTION 9

Which of the following characteristics are typical of the backlog artifact according to Scrum methodology? Check all that apply.

☐ Openable and editable by anyone.

☐ Contains backlog items: descriptions of all potential features, prioritized by business value.

☐ Includes estimates of development effort, set by the team.

☐ Owned by the Scrum master.

☐ Owned by the Product owner.

[2 marks]

Obtained
score

QUESTION 10

Which of the following agile practices are identified as "good" in the course? Check all that apply.

☐ Daily meeting.

☐ Open-space working arrangements.

☐ Acceptance of change.

☐ Branching.

☐ Product burndown chart.

[2 marks]

Obtained score

QUESTION 11

Which of the following agile practices are flagged as "hype" in the course? Check all that apply.

☐ Planning poker.

☐ Cross-functional teams.

☐ Maintaining a sustainable pace.

☐ Embedded customer.

[2 marks]

Obtained score

QUESTION 12

Which of the following agile practices are identified as truly "brilliant" in the course? Check all that apply.

☐ Test-driven development.

☐ Short iterations.

☐ Continuous integration.

☐ Closed-window rule.

[2 marks]

Obtained score

QUESTION 13

Which of the following agile practices are identified as "ugly" in the course? Check all that apply.

☐ No upfront requirements.

☐ Test-driven development.

☐ No branching.

☐ Closed-window rule.

[2 marks]

Obtained score

QUESTION 14

Which of the following questions should a developer answer during a daily meeting in Scrum? Check all that apply.

☐ What did you do yesterday?

☐ What will you do tomorrow?

☐ Did you encounter any bug in your code?

☐ What will you do today?

☐ Are there any impediments in your way?

[2 marks]

Obtained score

QUESTION 15

Why do some decks of cards used to play the planning poker game have card values resembling the Fibonacci sequence (0, 1, 2, 3, 5, 8, 13, ...)?

☐ To avoid nit-picking discussions on small differences of estimation.

☐ To discuss the inherent uncertainty of short-term estimation.

☐ In honor of Leonardo Fibonacci, who in his work as an early mathematician applied ideas that prefigured agile methods.

☐ To reflect the numbers that statistically the majority of developers pick.

[2 marks]

Obtained score

QUESTION 16

Which of the following items constitute "waste" according to Lean method? Check all that apply.

☐ Design documents.

☐ Defects not caught by tests and reviews.

☐ Doing overtime.

☐ Customer waiting.

[2 marks]

Obtained score

QUESTION 17

Which of the following responsibilities are assigned to the team according to Scrum method? Check all that apply.

☐ Demos work results to product owner.

☐ Can do everything within guidelines to reach goal.

☐ Selects iteration goal and work results.

☐ Organizes itself and its work.

[2 marks]

Obtained score

QUESTION 18

Which of the following responsibilities are typically assigned to a traditional (non-agile) manager? Check all that apply.

☐ Define goals.

☐ Validate requirements.

☐ Decide weather goals have been met.

☐ Provide an interface with higher management.

☐ Enforce rules and methodology.

[2 marks]

Obtained score

QUESTION 19

What do agile methods suggest to maintain a sustainable pace? Check all that apply.

☐ No overtime.

☐ Merge code as little as possible.

☐ Constant refactoring.

☐ Make sure that a project has enough developers.

[2 marks]

Obtained score

QUESTION 20

What happens during a review meeting in Scrum? Check all that apply.

☐ The team members discuss both the completed and non-completed work with the customer.

☐ The team members demonstrate both the completed and non-completed work to the customer.

☐ The team members demonstrate the completed work to the customer.

☐ The team members answer the question: "What could be improved?"

[2 marks]

Obtained score

QUESTION 21

Which of the following questions should a participant to a scrum of scrums meeting answer? Check all that apply.

☐ What will your team do before we meet again?

☐ Are you about to put something in another team's way?

☐ What did your team do since we last met?

☐ Is anything slowing your team down?

[2 marks]

Obtained score

QUESTION 22

Which of the following numbers can be used to measure progress in a software project according to Scrum?

☐ Number of overtime hours worked by the team.

☐ Number of passing tests.

☐ Velocity in story points.

☐ Number of failing tests.

[2 marks]

Obtained score

QUESTION 23

What should the developers be offered in their working environment according to XP? Check all that apply.

☐ An accelerated career path for those who wish to work more, especially on week-ends.

☐ Food.

☐ Safety.

☐ Belonging.

☐ Accomplishment.

[2 marks]

<table>
<tr><td>Obtained
score</td></tr>
</table>

QUESTION 24

What does "No big Upfront Steps" mean?

☐ That focus should be on achieving quality through testing.

☐ That the project iterations should be short.

☐ That the exact scope of the system should be decided in advance.

☐ That software teams should not spend a long time on requirements, design, and architecture before actually starting to code.

[2 marks]

<table>
<tr><td>Obtained
score</td></tr>
</table>

QUESTION 25

Which of the following sentences reflect issues with the formulation of the agile principles? Check all that apply.

☐ Software testing is discussed in just one principle.

☐ Software testing is not discussed in any principle.

☐ There is some redundancy when discussing software delivery.

☐ Some principles are actually assertions.

[2 marks]

<table>
<tr><td>Obtained
score</td></tr>
</table>

QUESTION 26

Which of the following are expected benefits of Test-Driven Development? Check all that apply.

☐ Write fewer tests.

☐ Catch bugs early.

☐ Drive the design of the program.

☐ Replace specifications by tests.

[2 marks]

Obtained score

QUESTION 27

What can be derived from the published experimental studies measuring productivity of pair programming vs. "traditional" programming?

☐ There is no significant evidence in favor of one approach or the other.

☐ There is significant evidence in favor of the traditional approach.

☐ There is significant evidence in favor of pair programming.

☐ None of the above.

[2 marks]

Obtained score

QUESTION 28

What does XP mean by "Maintain a single code base"?

☐ Avoid branching, even if permitted by the configuration management system.

☐ Allow branching and merging only at predefined milestones in the project.

☐ Avoid merging, even if permitted by the configuration management system.

☐ The code base should be stored on a single server.

[2 marks]

Obtained score

QUESTION 29:

Which of the following responsibilities are assigned to the tracker according to Scrum and XP methods? Check all that apply.

☐ To measure velocity.

☐ Every day or two, the tracker asks each developer how many tasks he has completed.

☐ Selects iteration goal and work results.

☐ Keeps track of the schedule.

[2 marks]

Obtained score

QUESTION 30:

What is the Agile Manifesto?

☐ A document signed by a group of software consultants designed to attract the software world's attention to 12 principles of "good" software development.

☐ A pamphlet designed to attract the software world's attention to 24 principles of "good" software development.

☐ A document signed by a group of software consultants designed to attract the software world's attention to some design patterns that proved to be good in the previous 12 years of software development.

☐ A pamphlet designed to attract the software world's attention to 12 examples of "bad" software development.

[2 marks]

[Total 60 marks]