Beijing-Dublin International College

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SEMESTER I FINAL EXAMINATION - 2017/2018

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School of Computer Science & Informatics

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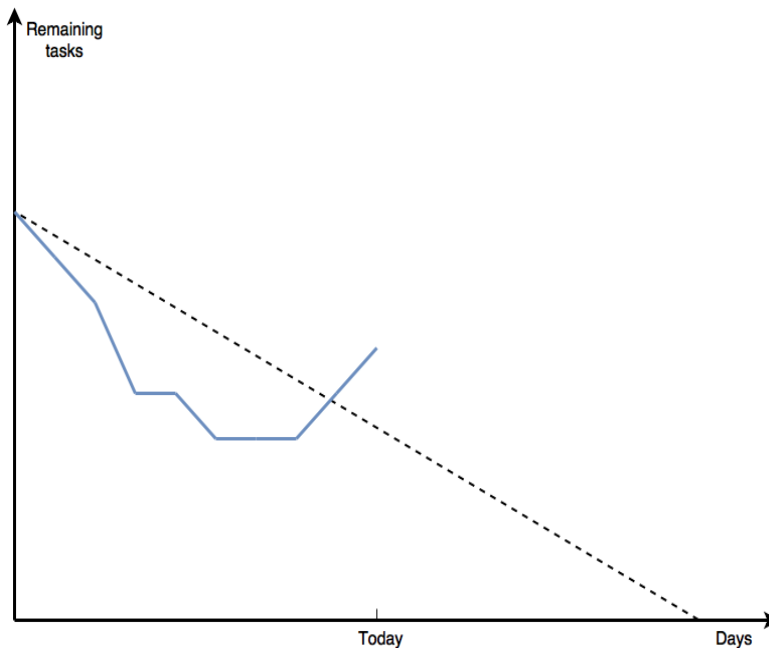
Instructions for Invigilators
Non-programmable calculators are permitted.
No rough-work paper is to be provided for candidates.

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<tr><td>Obtained
score</td><td rowspan="2">

QUESTION 1

Consider the following burndown chart:

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Which of the following statements about the chart interpretation is correct?

○   As of today, the project velocity is worse than expected.
○   As of today, the project velocity is better than expected.
○   As of today, the project velocity is exactly as expected.

[2 marks]

<table>
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score</td><td>

QUESTION 2

 Which of the following are typical responsibilities of the Scrum Master? Check all that apply.

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☐   Shield the team from external interferences.
☐   Remove impediments.
☐   Enforce process: daily meeting, planning meeting, review meetings.
☐   Decide on the priority of the features

[2 marks]

Obtained score

QUESTION 3

What is a user story according to Scrum?

○ A specification of what does a user wants and why.

○ Something a user wants.

○ A collection of pictures expressing the customer's needs.

○ An informal chat between the customer and the developers about what the system should do.

[2 marks]

Obtained score

QUESTION 4

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 tend to change over time, becoming invalid.

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

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

[2 marks]

Obtained score

QUESTION 5

Which of the following are considered traditional manager responsibilities? Check all that apply.

☐ Provide an interface with the customer.

☐ Provide an interface with higher management.

☐ Review developers' code.

☐ Provide diagrams (for example, UML diagrams) of the software system.

[2 marks]

Obtained score

QUESTION 6

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 7

Who are the "pigs" in a Scrum meeting?

○ The customers.

○ People not truly committed to the project, who will give an opinion if asked to do so.

○ Core participants to the project, allowed to participate actively in the meeting.

○ The Scrum master and the Product owner.

[2 marks]

Obtained score

QUESTION 8

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

○ Velocity in story points.

○ Number of passing tests.

○ Number of failing tests.

○ Number of overtime hours worked by the team.

[2 marks]

Obtained score

QUESTION 9

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 10

In pair programming the two developers should be of approximately the same level of competence.

○ True

○ False

[2 marks]

Obtained
score

QUESTION 11

Which of the following ordered lists of activities represents XP's view on incremental design?

○ First find suitable abstractions, then create a design from those abstractions, and finally incrementally add to the previous design.

○ First create the simplest design that could possibly work, then find suitable abstractions including future extensions, and finally incrementally add to the previous design.

○ First create the simplest design that could possibly work, then incrementally add to it, while improving it at every iteration.

○ First find suitable abstractions, then create a design including future extensions, and finally incrementally add to the previous design.

[2 marks]

Obtained
score

QUESTION 12

What is a "bullpen" according to XP terminology?

○ An artifact representing the room in which developers meet other developers to discuss technical issues.

○ An artifact representing the room, organized as an open space, in which all the team is supposed to work.

○ An artifact helping to measure how many hours each developer worked in a software project.

○ An artifact representing the room in which developers meet managers for face-to-face meetings.

[2 marks]

Obtained
score

QUESTION 13

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

☐ 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.

☐ Server room.

[2 marks]

Obtained score

QUESTION 14

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.

☐ Help write user stories to allow time estimation and priority assignment.

☐ Organize a daily meeting.

[2 marks]

Obtained score

QUESTION 15

How would you characterize a user story as opposed to a use case? Check all that apply.

☐ A user story is typically more complex than a use case.

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

☐ A user story is typically less complex than a use case.

☐ A user story typically does not handle exceptional cases, while a use case does.

[2 marks]

Obtained score

QUESTION 16

Which of the following characteristics are typical of the backlog artifact according to Scrum methodology? Check all that apply.
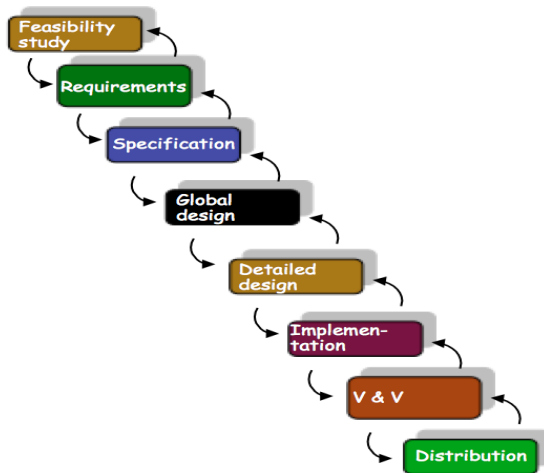
☐ Openable and editable by anyone.

☐ Owned by the Scrum master.

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

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

[2 marks]

QUESTION 17

Obtained
score

Consider the following picture:

Which of the following approaches proposes a project lifecycle model similar to the one shown in the picture?

- ○ Scrum.
- ○ Waterfall.
- ○ XP.
- ○ Lean.
- ○ Crystal.

[2 marks]

QUESTION 18

Obtained
score

You are the (non-technical) scrum master of an agile software development team. During the last retrospective meeting, the development team raised an issue they are having with the product owner, who is in their opinion too strict in rejecting their work results. What would you do?

- ○ After the meeting I would privately talk to the product owner, find a solution, and propose the solution to the development team during the next daily meeting.
- ○ During the meeting I would encourage the development team and the product owner to find their own solution to the problem, making myself available in case they need my help.
- ○ During the meeting I would side with the development team and support them.
- ○ During the meeting I would side with the product owner and support him or her.

[2 marks]

Obtained score

QUESTION 19

Which of the following agile practices are "hype" in the course's analysis? Check all that apply.

☐ Dismissal of traditional manager tasks.

☐ Planning poker.

☐ Open space working arrangements.

☐ Pair programming.

☐ Embedded customer.

[2 marks]

Obtained score

QUESTION 20

Which of the following agile practices are "good" in the course's analysis? Check all that apply.

☐ Test-first development.

☐ Constant test regression analysis.

☐ Product burndown chart.

☐ Branching.

[2 marks]

Obtained score

QUESTION 21

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.

☐ No branching.

[2 marks]

Obtained score

QUESTION 22

Why does the course warn against using tests as a replacement for specifications?

○ Because they are typically incomplete, lacking results for individual cases.

○ Because they are written by developers, while they should be written by customers.

○ Because they are too general, lacking results for individual cases.

○ Because they are too specific, giving results in individual cases, as opposed to specifications, which give results in all cases.

[2 marks]

Obtained score

QUESTION 23

Which of the following statements about agile processes are true? Check all that apply.

☐ According to the XP method, documentation and code should be of primary importance.

☐ According to the XP method, programmers and code should be of primary importance.

☐ According to the Lean Software method, software projects are better off if they manage to get rid of "waste" (such as detailed documentation) and concentrate on things that get actually delivered to customers (e.g. code).

☐ The Lean Software method was first applied in the construction industry.

[2 marks]

Obtained score

QUESTION 24

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 25

Which of the following is the suggested list of meetings that should take place in a Scrum team?

○ Daily meeting, requirements meeting, design meeting, sprint meeting.

○ Daily meeting, planning meeting, review meeting, design meeting.

○ Daily meeting, planning meeting, retrospective meeting, review meeting.

○ Daily meeting, planning meeting, sprint meeting, review meeting.

[2 marks]

Obtained score

QUESTION 26

What is the multiple design approach suggested by the Lean method about?

○ Assigning the same problem to different teams, sequentially.
○ Assigning the same problem to different teams, in parallel.
○ Assigning different problems to different teams, sequentially.
○ Assigning different problems to different teams, in parallel.

[2 marks]

Obtained score

QUESTION 27

Which of the following are considered developers' responsibilities in XP and Scrum? Check all that apply.

☐ Implement only what is necessary.

☐ Provide precise user stories, enabling users to produce comprehensive task cards and accurate estimates.

☐ Estimate work for each story.

☐ Identify risky features and report them to the customer.

[2 marks]

Obtained score

QUESTION 28

The Lean approach has an emphasis on removing "waste". Which of the following items constitute waste according to Lean? Check all that apply.

☐ Defects not caught by tests and reviews.

☐ Doing overtime.

☐ Customer waiting.

☐ Design documents.

[2 marks]

Obtained score

QUESTION 29

Which of the following are considered customers' responsibilities in XP? Check all that apply.

☐ Work within the team, provide guidance and receive feedback as quickly and accurately as possible.

☐ Provide precise stories, enabling developers to produce comprehensive task cards and accurate estimates.

☐ Analyze risk correctly, weighing stories against each other.

☐ Assign tasks to the development team.

[2 marks]

Obtained score

QUESTION 30:

What is the ideal number of members in a software team according to Scrum?

○ 5 +/- 2.
○ 6 +/- 2.
○ 7 +/- 2.
○ 8 +/- 2.
○ 9 +/- 2.

[2 marks]

[Total 60 marks]