

CSC 171 Mid-Term Exam- Fall2022

Section Number: _____ 1 _____

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Score: 61.67

1. C
 2. D
 3. E
 4. A
 5. B

-4 1.(10 Points) For each item in column A, select the best matching one from column B.

A	B
1. Pillar of Lean C 2. Lean principle 3. Empirical process control 4. Agile practice 5. Agile software development manifesto	a. Adaptation b. Working software over comprehensive documentation c. Respect for people d. Decide as late as possible e. Planning poker

1 - C ✓, 2 - D ✓, 3 - E ✗, 4 - A ✗, 5 - B ✓

-10 2.(30 Points) Mark each of the following statements True or False.

- 1) A Scrum team can use Kanban board to manage flow. *Kanban is a method to make visible work in-pipeline to review? Not exclusive to a role* *True*
- 2) Flow-based agile approaches are more heavy-weight process-wise than iteration-based agile approaches. *False*
- 3) Using agile approaches can guarantee a project's success. *X True* *- It can ...*
- 4) A team adopting Lean should set the goal to eliminate all waste. *False* *Can't eliminate them all & is waste of time*
- 5) Every team in an organization should use the same Kanban board layout. *False*
- 6) Cycle time measures the duration between an item received by an organization till it is released to customers. *True*
- 7) The larger the team size, the more productive the team is. *False*
- 8) Traditional development approaches try to improve resource efficiency. *X False* *Traditional Scope is prioritize Large - option plan*
- 9) Smaller user stories reduce velocity variability and improve the flow. *X False*
- 10) If a user story is estimated as 16 ideal hours, it should take two working days to complete it, assuming 8 hours per working day. *False*
- 11) Individual-based reward system discourages collaboration. *False* *→ It depends or always*
- 12) A product demo is a product release. *False*
- 13) Agile approaches cannot be applied to a project that requires hundreds of people. *False*
- 14) Lean recommends using push systems.

False *pull* *2 of 6* *systems - always pulling work*

- 15) Teams should compare user story point estimations among themselves to improve estimation accuracy.

False ✓ They are generally unique to one's exp.

and as a collective team are agreed on

3.(30 Points) For each question, select all the choices that apply.

- 1) Select all that apply to agile estimation?

- a) Relative measures are often used.
- b) Make good enough estimates without spending too much time on it.
- c) The entire team should conduct estimates together.
- d) Use regression models, such as COCOMO. X - Traditional

- 2) Select each requirement for an agile team?

- a) It is cross-functional.
- b) It requires a full time "customer representative".
- c) It requires an agile coach.
- d) It is stable.

-2/3

- 3) Select each Non-Value-Adding action? —

- a) Conducting retrospective
- b) Reinventing the wheel
- c) Learning frameworks needed for the project ↗ ok levels up the team, so they can work effective. Growth mindset
- d) Waiting for other groups to finish part of a feature

- 4) Select all that apply to the waterfall approach?

- a) It is incremental.
- b) It requires a big up-front design. — each time frame feeds into the next
- c) It is iterative.
- d) It requires comprehensive documentation. — Traditional

- 5) Select each agile development method?

- a) Feature Driven Development
- b) Kanban
- c) Scrum
- d) Waterfall — Traditional

a & c
sound
the same

- 6) Select each one that improves flow according to Lean.

- a) Larger batch size
- b) Shorter cycle time
- c) Shorter feedback time
- d) Larger queue size

7) Select each one applies to Kanban.

- a) It is based on Lean Thinking
- b) It limits WIP
- c) It visualizes work
- d) It has defined team roles

-4/3

8) Select each item does not help in building a psychological safe environment.

- a) People are fired without explaining reasons
- b) Zero tolerance to mistakes
- c) Team members are encouraged to learn new technologies
- d) Most decisions are made by senior engineers

Traditional
management

9) Select each responsibility of an agile project manager.

- a) Assign work to team members.
- b) Help the team in tracking project progress.
- c) Help the team in resolving conflicts.
- d) Set deadlines for projects.

10) Select each responsibility of a product owner.

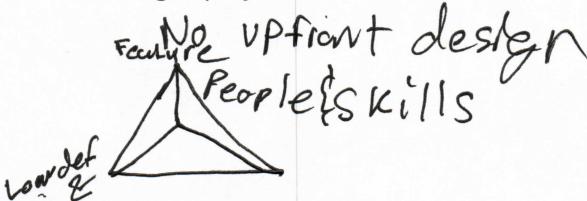
- a) Create and manage product backlog.
- b) Estimate product backlog items.
- c) Prioritize product backlog items.
- d) Collect requirements from stakeholders.

-2/3

represents
the customer

11) Select each item that is needed to start an agile project.

- a) Communication plans.
- b) Project vision
- c) Risk contingency plans
- d) Release criteria X



-1

12) Select each item that applies to agile architecture design.

- a) There is no need to do any upfront design.
- b) Use architectural spikes to experiment. ? SPIKES - Not enough information on user story
- c) Delay architecture decision making when there are a lot of uncertainties. - Make decisions last minute
- d) Rely on external architects to make architecture decisions. X

13) Select each item that applies to traditional planning.

- a) There are multiple plans at different levels. ← maybe saw this on assignment
- b) Gantt charts are used in scheduling projects.
- c) Deliverables are organized in Work Break down Structures (WBS).
- d) Plans are updated on a regular basis.

This might be
an answer

14) Select each item applies to frequent release.

- a) It shortens feedback loop cycle.
- b) It leads to poor product quality.
- c) It can reduce business risks.
- d) It can reduce financial risks.

✓ - Can, but is not assured

15) Select each factor should be considered in selecting an iteration length.

- a) Length of the project.
- b) Team size.
- c) The overhead of iteration.
- d) Uncertainty associated with requirements.

-2/3 X 8 4. (2 Points) A scrum team had 6 stories in its sprint backlog with the following estimate, [3, 1, 2, 3, 5, 8].

At the end of the sprint, it completed all but the last one. What is the velocity for that sprint?

$$3+1+2+3+5 = 14$$



5.(4 Points) A team is planning a feature-driven project. The team's expected velocity is **12** story points, and the following shows the story points of required user stories:

[3, 2, 8, 20, 8, 1, 8, 1, 20, 1, 1, 1]

How many iterations should the team plan for the project? Round up your answer to a whole number.

Make sure to show your work.

12 story pts

$$\begin{array}{ccccccccc} 3 & + & 2 & + & 8 & + & 20 & + & 8 \\ \hline 5 & < & 13 & & 33 & & 41 & & 42 \end{array}$$

Story pts

Sum of Story pts = Iterations

Velocity Rounded up

$$\frac{74}{12} \approx 6.1$$

Round up ✓

Iterations

- ~~-4~~ 6. (4 Points) A team is planning a date-driven project. The team's expected velocity is **6 story points**, the project has **10 iterations**, and the following shows user stories in priority order in the format of (**Story ID, Story Points**): (1, 5), (2, 3), (3, 2), (4, 13), (5, 13), (6, 20), (7, 13), (8, 20), (9, 8), (10, 20)
Which user stories (using ID range) should be included for the project. **Make sure to show your work.**

?

?

- ~~-10~~ 7.(10 Points) What are the five required activities of Scrum? Who should participate in each activity?
How often should each activity be conducted?

Mod 01 Slide 18	Activities of Scrum	Who should participate?
X	1. Pick & Prioritize backlog	All members in team
X	2. Assign Story points	
X	3. Assess risk	How often?
X	4.	Regularly
X	5.	As often as the team can
X	6. Acknowledge and recognize Risks	

- ~~-6~~ 8. (10 Points) Use Canvas as the product to write a user story. How do you assess the quality of a user story?

As a student I want to enter a "hopeful" score, so that I can view my "hopeful" grade ~~on the~~ ~~in the~~ in the course.