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**CMSI 543 / SYEG 557 Homework #2**

**CHAPTER 4**

***4. Who are the likely candidates to serve as Scrum master?***

Potential candidates to serve as Scrum Master include project managers, team leads, software developers, QA engineers, business analysts, and anyone with experience in agile methodologies.

***5. In what circumstances is it a bad idea to have the IT manager be the Scrum master***

In general, it is not recommended to have the IT manager serve as the Scrum Master if they are rigid in sticking to Waterfall principles. This is because the IT manager may have a vested interest in the project's outcome and may be biased towards certain team members or stakeholders. The Scrum Master should be a neutral party, dedicated solely to facilitating the Scrum process and ensuring that the team adheres to the Scrum framework.

***8. How large should a Scrum team be? Why does it matter?***

The ideal Scrum team size is typically between 5 to 9 members, although some teams may have up to 12 members. The team size is an essential aspect of the Scrum framework since it impacts the team's ability to collaborate and communicate effectively. A smaller team size promotes better communication and collaboration between team members, enabling them to work more efficiently and deliver high-quality products

***9. What are some of the benefits of self-organizing teams?***

Some of the benefits of self-organizing teams are; Improved collaboration and communication amongst team members, increased team morale and motivation, faster decision-making and problem solving, greater flexibility and adaptability to change and improved quality of work and customer satisfaction.

***12. What is a project manager called in Extreme Programming?***

The role is called tracker.

***15. Provide several examples of stakeholders.***

Customers, Users, Project sponsors, management, QA engineers and suppliers.

***16. Who is responsible for writing and prioritizing the requirements/user stories?***

The Product Owner is responsible for writing and prioritizing the requirements/user stories.

***19. What are examples of impediments?***

Few examples of impediments are; Lack of resource funding, intrapersonal issue (being a bad sport), technical debt or outdated technology, poor communication and collaboration, inadequate training and skills, external dependencies or delays and changes in requirements

***20. Within Scrum, who is responsible for testing?***

Testing is the responsibility of the entire Scrum team, which includes the developers, QA engineers, and any other team members with the necessary skills and knowledge to perform testing activities.

**CHAPTER 5**

***1. What is the user story format in scrum***

The user story format typically follows this template: "As a [user role], I want [feature or functionality], so that [benefit or outcome]."

***2. Name three of the six elements of a user story represented in the acronym INVEST?***

**Independent:** Story must have the ability to stand alone

**Negotiable:** User story should invite collaboration and discussion about the best way to solve the business problem

**Valuable:** The story should provide business value and be prioritized by the business value provided.

**Estimable:** User stories must be clear enough that developers and testers can reasonable estimate the complexity and length of time to deliver.

**Small:** Stories should be small enough to be completed in a single sprint

**Testable:** Should be enough of a feature and written in a way that can be tested.

***3. What is an epic? What, if anything, should be done with it?***

An epic is a user story that is too big to be designed, coded, and tested withing a single sprint. Epics should be broken into smaller user stories.

***4. What are the MoSCoW rules in DSDM?***

**Must Have:** All features classified in this group must be implemented, and if they are not delivered, the system would simply not work.

**Should Have:** Features of this priority are important but can be omitted if time of resources constraints appear

**Could Have:** These features enhance the system with greater functionality, but the timeliness of their delivery is not critical.

**Want to have:** These features serve only a limited group of users and do not drive the same amount of business value as the preceding items.

(Pg 125 Ashmore, Intro to Lean Methods)

***5. What is Crystal software development very interested in with regard to requirements?***

Crystal Software development focuses heavily on the user experience and understanding exactly how end users will interact with the software, they want to learn the I**nterests** of the key stakeholders, what the Needs are of the users, and what the Styles of those key users are.

***8. What are three examples of business value?***

1. Increased Revenue
2. Decreased Costs
3. Increased customer satisfaction

***9. What is release management?***

Release Management is the process of planning, designing, scheduling, testing, deploying and controlling of software releases since each sprint will not always provide enough functionality to be pushed to the marketplace.

***15. How does the transparency afforded by Agile help the organization?***

Transparency in Agile allows the product owner to receive feedback from the Team, and find gaps or potential problems with their thought process regarding the vision, user stories, or development in general.

***17. Why does the Lean software development advocate for making decisions as late as possible?***

Delaying decisions is valuable because better decisions can be made when they are based on fact, not speculation.

**CHAPTER 6**

***3. Should features provided by the competition influence prioritization?***

It would depend on the return on investment (ROI) of the feature and whether including the feature would diminish the stability of the application. If the ROI is great, then it would be beneficial to add value to the application by including similar features as the competition but also reviewing new opportunities.

***7. Why is the Fibonacci sequence preferred over regular numbering for estimating?***

The Fibonacci sequence may be preferred over regular numbering for estimating because the numbers, if the level of difficulty is agreed upon by a team, can define the level of effort and potential time it may take to complete a story. If the team agrees to what 5 and 13 story points is, it could clearly define the level of difficulty and work involved in 2, 3, 5, 8, 13, and 21 story points.

***9. What does velocity tell a team?***

Velocity typically tells a team how much work can be completed within a time frame which can be used as a predictor for future iterations, but it shouldn’t be used as a management metric because it is based on story points, which are arbitrary.

***10. What is intentional technical debt?***

Intentional technical debt is a type of debt that gives us the opportunity to understand consumer needs and research the optimal database design once revenue starts coming in so that we can code and build around those constraints. For example, build software that isn’t scalable but quick and easy to get an understanding of user experiences and needs.

***13. Describe at least two ways that teams can incorporate maintenance work into sprint planning.***

**a.** The team can reserve some time within their sprint to focus on maintenance issues.

**b.** Assigning a specific team member each sprint to focus only on the maintenance work, rather than having the entire team reserve some of their sprint time to focus on maintenance issues.

***14. In Agile, what constraint is split into two distinct considerations?***

In Agile, scope and quality are viewed as two very separate things where the team can either deliver the prescribed scope at lesser quality, or it could maintain acceptable quality standards with a reduced scope.

***16. What is relative sizing?***

Relative sizing is identifying a task that everyone is familiar with and assigning a point value to it.

***18. With wide-band Delphi, how are the estimates gathered?***

With wide-band Delphi estimates are gathered through anonymity of the respondents. A facilitator would hold a meeting, regarding a feature request, with experts and then have each expert complete an anonymous estimation form where the experts discuss the feature request until finally all estimation forms agree.