**Quiz 2**

Question 1-20

1. What are the three main objectives of agile software engineering?
2. Continuous Innovation
3. Improved time-to-market
4. People and process adaptability
5. What is incremental development and delivery?

Incremental development is about working on the important features of a system, each feature does something for the user. The features are implemented at different version and each version is fully functional, each version is built upon the previous version.

1. List five of the agile development principles.

Five agile development principles are:

1. Customer satisfaction by rapid delivery of useful software
2. Welcome changing requirements, even late in development.
3. Working software is delivered frequently (weeks rather than months)
4. Working software is the principal measure of progress.
5. Sustainable development, able to maintain a constant pace.
6. What are the most widely adopted Extreme Programming practices?

The most widely adopted XP practices are:

* Test-first development
* Refactoring
* Small releases
* Continuous integration
* Incremental planning

1. How are XP teams managed?

XP teams are managed in teams . All the members of the team regardless of their position is respected for their contribution. ‘There is an all for one and and one for all ‘,moto.

1. What is Scrum?

Scrum is an agile methodology that makes use of collaboration and breaks down large projects. into small manageable parts to be worked on by teams’ members to deliver a full function solution in a short time frame. It makes use of transparency, collective accountability, and continuous progress.

1. What is the principal responsibility of the Product Owner in a Scrum team?

The product owner is responsible for identifying product features and attributes. They review work and help to test the products.

1. What is a ‘potentially shippable product increment’?

A potential shippable product increment is the output of a sprint that is good enough quality to be used by the customers.

1. List five benefits of using Scrum.

Five benefits of using scrum are:

* Unstable requirements do not hold up progress.
* The product is broken down into a set of understandable chunks that stakeholders can relate to.
* Customers see on-time delivery of increments and gain feedback on how the product works.
* Team communication is improved because everyone can see everything.
* Trust between customers and developers is established and a positive culture is created.

1. What are the principal product backlog activities in Scrum?
   * Refinement
   * Estimation
   * Prioritization
   * Creation
2. What factors should be considered when deciding how many story points are required to complete a backlog item.

The factors to consider are the size of the task, its complexity the technology that may be needed and the works that needs to be done.

1. What is meant by a Scrum development team’s velocity?

Scrum development team’s velocity is the amount of work a team can tackle in a single sprint.

1. Briefly explain the three main benefits of using time-boxed sprints.

Timed- boxed sprints is the fixed amount of time in which product backlog are implemented. Three main benefits of using timed-boxed sprints are:

1. Demonstrable progress, there is a tangible output that can be delivered at the end of each sprint.
2. Problem discovery, this is if there is discovered errors or omissions then the rework required is limited to the duration of the sprint.
3. Worked planning, the team have a understanding of how much work they can do in a fixed time period.
4. What three things should a Scrum team do when planning a sprint?

A sprint is a timed period in which to develop features for a product.

Three things a scrum should do when planning a sprint are:

* There needs to be an agreed sprint goal.
* Decision should be made on what items need to be implemented from the product backlog.
* Create a sprint backlog.

1. What is a Scrum?

Scrum is a daily team meeting where progress is reviewed and work to be done that day as discussed and agreed.

1. What technical activities from XP should always be used in a Scrum development process?

The technical activities form XP that that should be used with scrum development process are incremental planning, small releases, refactoring, continuous integration and test-driven development.

1. List the items that might be part of a code completeness checklist.

The items that are part of code completeness checklist are:

* Review code
* Unit test
* Integrated code
* Integration tests
* Acceptance tests

1. What is a self-organising team?

Self-organising team are scrum team members that coordinate their work of by discussing task and deciding what needs to be done, they make their own decisions on schedules and deliverables, there is limited involvements of engineers in external interactions with customers and management.

1. Why does informal spoken communication not always work as a means of team coordination?

Informal spoken communication may not work as team members may misinterpret what is needed to be done, layback approach may be taken, members may take advantage of the situation and slack of work and no professionalism approach to their work.

1. What are the three principal project management activities? For each of these, list two associated activities that are management responsibilities.

The three principal project management activities are:

* + Reporting- the management responsibility is budget; How to spend money and progress: How a project is progressing against fixed time frames.
  + Administration- Finance: how much money to spend and liaison’ communication with people outside of the group.
  + People- Reviewing and hiring staff.