AGILE METHODOLOGIES QUESTION BANK

UNIT 3,4&5

1. What do you mean by release candidate?

To ensure that during the final development stage, there is no major problem left behind a code or version or a build is released, which is known as a release candidate. This is equivalent to the final build, and it is used for testing.

2. Differentiate between agile testing methods and other testing methods?

In major methodologies of agile testing cases, the code is divided into smaller parts. At one specific time, each branch of code is tested. Also, continuous communication is done on that part of the code. The agile process is more flexible and focused.

3. What is Zero sprint in Agile?

A zero sprint can be defined as the pre-step to the first sprint. Things such as setting up the environment to develop, prepare backlog, etc. that need to be performed before the start of the initial sprint and can treat it as Sprint zero.

4. What does story point mean in the scrum?

The Scrum unit which is used to estimate the effort required to finish or implement a backlog is referred to as a story point in the scrum.

5. Why do user stories are not estimated in working hours?

It is not mandatory to estimate user stories in terms of man hurt as it will mean a lack of product quality, which is to be delivered to the customer. In the case of the working hour, more attention is given to the budget and cost of management.

This is why the story point is necessary as it provides concepts regarding efforts, which are required, and also the complexity of the work.

6. What are the most critical agile Matrices?

The following are the critical [agile Matrices](#).

- Velocity - To have a clear about your progress, capacity, and much more keeping track of the velocity is essential. It can be measured by adding all the estimates of the stories that are approved.

- Work category allocation - the work category allocation will provide a clear idea about where you are investing your time and also about the priority of the work.
- Defect removal awareness - active members can produce quality products.
- The cumulative flow diagram -It is the uniform workflow checked in which the x-axis represents time, and the y-axis stands for the number of efforts.
- The sprint burndown matric - Helps in keeping track of the completion of the work with the sprint.
- Business value delivered - this is an entity that is concerned with the work efficiency of the team. It is used to measure, and 100 points are associated with every project.
- Time coverage - The time period is measured with the help of the ratio of the number of lines of code that is called by the test suite by the number of relative lines of codes.
- Defect resolution time - This is concerned with the process where the team members detect and fix bugs. There are several processes involved in fixing a bug.
- clearing the picture of the virus
- Schedule a fix
- Fixation of a defect is done.
- Report of resolution is handed.

7. What are the essential qualities a good Agile tester should have?

A professional Agile tester should have the following qualities

1. Should quickly understand the necessities
2. The agile tester knows Agile principles and concepts well
3. As requirements change continually, the tester should understand the risks involved in it
4. The ability to communicate among business developers, associates and tester is must.

8.Mention the challenges involved in developing Agile Software?

The various challenges involved in developing Agile Software includes

- More testing and customers involvement
- Impacts management more than developers
- Each feature needs to be completed before moving on to the next
- All the code has to work fine to ensure the application is in a working state
- More planning is required.

9.What is the product burndown chart?

It is the description in the form of a graph that shows implemented product backlog is called a burndown chart.

10.What is a sprint burndown chart?

A graph is the representation of the no. of the implemented sprints and non-implemented sprints in the scrum cycle. 10.

11.What is a defect burn-down chart?

No. of defects identified and removed is represented by the defect burndown chart

12. How is the velocity of the sprint measured?

If capacity is measured as a percentage of 40 hours weeks then the work is done = story points * team capacity

13. Are there any agile certifications?

Agile and Scrum certifications are hot in the market and organizations are expecting the candidates to hold one or more out of it. Agile Certifications and scrum certification are generally preferred by organizations are listed as follows:

- ACP (Agile Certified Practitioner)
- PSM (Professional Scrum Master)
- ASM (Agile Scrum Master)
- CSM (Certified Scrum Master)
- Safe Agilist

14. What are the major agile quality strategies?

The major agile quality strategies are:

1. Re-factoring
2. Small feedback cycles
3. Iterations
4. Dynamic code analysis

15.Name some project management tools used in agile?

Project management tools used in Agile are listed below:

- Version one
- X-planner,
- Icescrum,
- Rally Software,
- Agilent,
- Agilo

16.Define Product backlog and Sprint Backlog?

- A product backlog is maintained by the project owner that contains every requirement and feature of the product.
- A Spring backlog is treated as a product backlog subset that contains requirements and features related to a particular sprint only.

17. What is Pair Programming and state its benefits?

Pair programming is a technique in which two programmers work as a team where. One programmer writes code and the other one reviews that code. They both can switch their roles.

Benefits:

Knowledge transfer is smooth: One experience partner can teach another partner about the codes and techniques.

Code quality: As the second partner simultaneously reviews the code, the chances of mistakes being occurred will reduce.

18. What is refactoring?

Modifying code without a change in its functionality to improve the performance is called refactoring.

19. How can QA add value to an agile team?

QA provides additional value to the story thinking differently about distinct scenarios. It gives quick feedback to the developers on whether the new functionality is working fine or not.

20. What do mean by sprint planning meeting?

The meeting that involves the entire scrum team from product owner to scrum master and other team members is known as a sprint planning meeting. It is arranged to discuss the important feature of the team and also the items of the product backlog.

21. Mention the places where the Scrum and Kanban methodologies are used?

When shifting to the prominent and appropriate process is required, then you use Scrum. When the need is to improve the process that is running provided with lesser changes, then Kanban is used.

22. What are the essential qualities to have as a Scrum Master?

Understanding the purpose and expectations, as well as sharing knowledge, are the primary qualities of a Scrum Master.

23. What are the primary tools used in a Scrum project?

The primary tools used in a Scrum project are:

- JIRA
- Rally
- Version One

24. Is canceling a Sprint possible? Who can cancel a Sprint?

Only the Product Owner can cancel the Sprint. It can be canceled before the Sprint timebox limit ends.

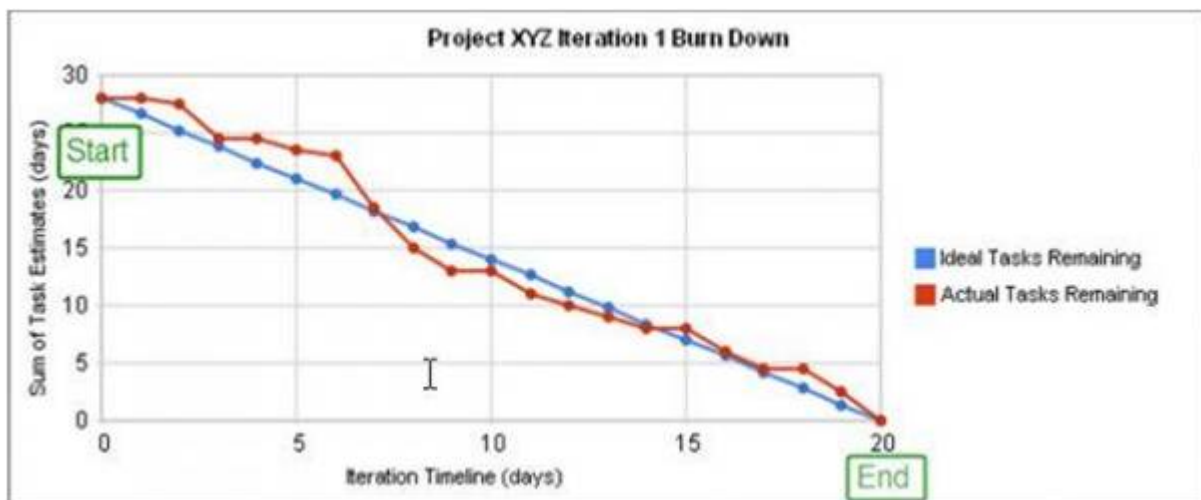### 25. How do agile testing methods differ from other testing methods?

In the case of agile testing methodology, the code that is used is broken into smaller branches. At one particular time, each particular branch of code is tested. Also, continuous communication is done on that part of the code. The agile process is more flexible and focused.

26. How to know that you are using agile development?

You will know that you are using agile development is when you are using a time-boxed task board, test-driven development, daily stand-up meetings, pair programming, and many more.

27. What do you mean by the X and Y-axis of the burndown chart?

In the burndown chart, the X-axis represents the working days and the Y-axis stands for showing the remaining efforts.

28. Describe the main roles in the scrum?

- **Scrum team** - It is consists of an individual person who is in charge of working collectively to complete a certain task.
- [Scrum Master](#) - this person is responsible for the paper execution of end result of the scrum team.
- **Product owner** - he or she has the responsibility of delivering a whole concept of what to build and then convey the idea to the team.

29. What are the major Agile components?

The major Agile components include:

- Test-driven development, continuous deployment, pair programming, etc.
- Class responsibilities and collaborators cards
- Daily stand-up meetings

30.What are the phases of Agile Unified Process?
AUP consists of seven workflows, each of which has four phases. The AUP workflow consists of Mode, Implementation, Test, Deployment, Configuration Management, Project Management, and Environment. The AUP phases consist of **Inception, Elaboration, Construction, and Transition**.

31.What is the difference between agile and unified process methodology?

Rational Unified Process is a software development approach that is used mainly in web application development. ... Agile, on the other hand, is a software development approach **that attempts to deal with the unpredictability of software development projects**. Agile involves a series of short cycles or iterations.

32.How is the unified process use case driven?

One of the key aspects of the Unified Process is its use of use cases as a driving force for development. ... The phrase use case driven refers to the **fact that the project team uses the use cases to drive all development work**, from initial gathering and negotiation of requirements through code.

33.What are some of the features of the unified process up?

UP has the following major characteristics: **It is use-case driven. It is architecture-centric. It is risk focused.**
...
This process divides the development process into four phases:

- Inception.
- Elaboration.
- Conception.
- Transition.

34.What is the difference between a unified process up phase and up workflow?

- Basic differences are:

  The unified process focuses on addressing risks, while RUP focuses on the fulfillment of needs to run a project. UP is the Unified Process - a process framework from which you can essemble your personal process. It is quite voluminous, aiming to provide a solution for every problem.

35.Is unified process adaptive?
Adaptive. The Rational Unified Process is not a concrete model with a set of rigid, non-negotiable rules. It's **intended to adapt to each situation**, effectively

tailoring the model to the meet the specific needs of the software being developed.

36.Why is XP considered an agile method?

Extreme programming is a software development methodology that's part of what's collectively known as agile methodologies. XP is **built upon values, principles, and practices**, and its goal is to allow small to mid-sized teams to produce high-quality software and adapt to evolving and changing requirements.

37.How XP is different from Scrum?

XP teams typically work in iterations that are **one or two weeks long**. Scrum teams do not allow changes into their sprints. ... Extreme Programming teams work in a strict priority order. Features to be developed are prioritized by the customer (Scrum's Product Owner) and the team is required to work on them in that order.

38.Is XP iterative or incremental?

However, both XP and Scrum do use a fixed time-box per iteration, while approaches focusing on more continuous flow, such as Kanban, may perform a consistent cycle of steps, but in the "time required" rather than a fixed time-box. **Xp refers to the cycle's time period as an "Iteration"**, while Scrum calls it a "Sprint".

39.What is Agile methodology in software development?

Agile is **an iterative approach to project management and software development** that helps teams deliver value to their customers faster and with fewer headaches. Instead of betting everything on a "big bang" launch, an agile team delivers work in small, but consumable, increments.

40.Write the meaning of Agile testing.

Answer: It is a testing procedure that pursues the rapid software advancement's statutes and doctrines. Agile testing policy endorses DevOps, and also persistent testing as supplementary testing is necessary for the improvement of merchandise quality. In the agile testing technique, examinations are prioritized for avoiding any problem or issue that a user can face later.

41. Describe lean methodology briefly.

Answer: Lean software advancement technique attends the doctrine of "production in exact time". Its goal is to boost the software expansion speed and reduce the cost at the same time.

42.What is the basic notion of lean?

Answer: Its basic idea is to decrease non-value-added actions for increasing customer value.

43.What is pair programming?

Answer: Pair programming is a communal endeavour of the team where a programmer jots down the code while another one evaluates it.

44.What are the steps of FDD?

Step 1: Develop the overall model. ...
Step 2: Build a features list. ...
3: Plan by feature. ...
4: Design by feature. ...
5: Build by feature.

45.Is FDD Agile framework?

FDD, which stands for Feature-Driven Development, is **a framework in the Agile methodology**. As the name suggests, it focuses on developing working software with features that satisfy client needs. ... Domain object modeling is one of the best practices of FDD.

46.What are agile environments?

An Agile environment is **a company or organization that supports Agile project management**. ... The four pillars of Agile that an Agile environment must support are: Individuals and interactions over processes and tools. Working software over comprehensive documentation. Customer collaboration over contract negotiation.

47.What are the benefits of working in an agile environment?

Here are some top reasons and benefits of Agile and why it is adopted by top companies for managing their projects:

- Superior quality product. ...
- Customer satisfaction. ...
- Better control. ...
- Improved project predictability. ...
- Reduced risks. ...
- Increased flexibility. ...
- Continuous improvement. ...
- Improved team morale.

PART B

1. Explain in detail about Extreme Programming Life cycle,Phases and work product and roles.

2. Explain in detail about EVO Life cycle,Phases and work product and roles.

3. Explain in detail about Unified Process Life cycle,Phases and work product and roles.

4. Describe about Agile project Management.

5. Explain in detail about Agile Environment.

6. Explain in detail about Agile Requirement.

7. Explain in detail about Agile metrics.

8. Explain in detail about Feature Driven Development.

9. Explain in detail about Test Driven Development.

10. Explain in detail about Agile approach in Quality Assurance.