**Course Final Assessment (Graded)**

1.Question 1

Every process is organized into distinct phases. What is a phase organized into?



activities



cycles



steps



tasks

**ANSWER:** (a) activities

2.Question 2

In general, what are the smallest manageable units of work to do within a process?



roles



tasks



work products



steps

**ANSWER:** (b) tasks

3.Question 3

What is the term to describe a sequence of phases outlining the structure of work to create a software product?



methodology



model



life cycle



process

**ANSWER:** (d) process

4.Question 4

Which one of the following statements is true?



A software life cycle process model consists of phases.



The number of tasks done leads to a process progressing through phases.



An activity is composed of tasks done by the same role.



An activity is composed of tasks involving common resources.

**ANSWER:** (a) A software life cycle process model consists of phases.

5.Question 5

What are examples of resources needed to make a software product?



Designs for the product



Office supplies and requirements



Cost and quality



Time and money

**ANSWER:** (d) Time and money

6.Question 6

What are examples of roles played by people for a software product?



Duties and responsibilities



Programmer and tester



Smart and empathic



Team player

**ANSWER:** (b) Programmer and tester

7.Question 7

As defined and depicted in the course, which one of the following statements is true?



A task *uses*a work product to *produce*another work product.



A role *produces*and *consumes*work products.



A task *uses*time to *produce*a work product.



A role *uses*and *produces*work products.

**ANSWER:** (a) A task *uses*a work product to *produce*another work product.

8.Question 8

From the course, which two of the following statements is true?



An Agile methodology contains practices based on Agile principles.



Practices are tactics used to make a process happen more effectively.



The Manifesto for Agile Software Development is a methodology.



An Agile methodology has practices that emphasize processes and tools.

**ANSWER:** (a) An Agile methodology contains practices based on Agile principles.

(b) Practices are tactics used to make a process happen more effectively.

9.Question 9

From the course, what are examples of specification activities?



Identifying ideas or needs, eliciting requirements, and managing requirements.



Identifying ideas or needs, prioritizing requirements, and demonstrating to clients.



Analyzing requirements, designing the architecture, and developing test procedures.



Creating a process, expressing requirements, and analyzing requirements.

**ANSWER:** (a) Identifying ideas or needs, eliciting requirements, and managing requirements.

10.Question 10

From the course, in which phase would an activity to conduct reviews and audits upon the product occur?



Design and implementation



Specification



Reviewing



Verification and validation

**ANSWER:** (d) Verification and validation

11.Question 11

Which one of the following process models is not an example of a linear process model?



Sawtooth



Unified



V



Waterfall

**ANSWER:** (b) Unified

12.Question 12

Which two of the following statements are not true of the Waterfall software process model?



The client sees working software early.



The model completes phases one at a time.



The model is simple and readily understood.



Software requirements can be changed later easily.

**ANSWER:** (a) The client sees working software early.

(d) Software requirements can be changed later easily.

13.Question 13

Unlike Waterfall and V, what does the Sawtooth software process model further allow?



Intermediate prototypes shown to client



Linear structure of phases



Approved work products



Explicit verification at multiple levels

**ANSWER:** (a) Intermediate prototypes shown to client

14.Question 14

In the Spiral software process model, what is the correct order of quadrants or phases in each iteration?



identify and resolve risks, determine objectives, develop and test, plan the next iteration



specification, design and implementation, verification and validation, plan the next iteration



determine objectives, identify and resolve risks, develop and test, plan the next iteration



determine objectives, develop and test, evaluate prototype, plan the next iteration

**ANSWER:** (c) determine objectives, identify and resolve risks, develop and test, plan the next iteration

15.Question 15

The Unified software process model is iterative because of which of the following reason(s)? (Choose two that are correct)



A spiral can be repeated.



The iteration phase can be repeated.



An iteration in a phase can be repeated.



Phases of the model happen in a cycle, and a cycle can be repeated.

**ANSWER:** (c) An iteration in a phase can be repeated.

(d) Phases of the model happen in a cycle, and a cycle can be repeated.

16.Question 16

In the Unified software process model, requirements are conceived in the \_\_\_ phase and further refined in the \_\_\_ phase.



inception / elaboration



inception / specification



requirements / design



initiation / requirements

**ANSWER:** (a) inception / elaboration

17.Question 17

In incremental prototyping, the product is built up by adding successive increments. What kinds of features get done in the successive increments?



Must do features get done first, then should do features get done next.



Basic forms of features get done first, then refined variations get done next.



Security issues are fixed first, then new features get done next.



Must do features get done first, then could do features get done next.

**ANSWER:** (a) Must do features get done first, then should do features get done next.

18.Question 18

Continuous delivery mainly aims to achieve \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by the end of each iteration?



nourishment is continuously delivered to the team



a meeting with the client to gain feedback on the working software



the product requirements are received for the next iteration



working software that is tested, ready-to-run, and releasable to others

**ANSWER:** (d) working software that is tested, ready-to-run, and releasable to others

19.Question 19

Which of the following statements is not an outcome of the planning game in Extreme Programming that involves the client and development team?



The required features for the product are defined and prioritized.



Effort estimates are made for each required feature.



Decisions are formed on what required features are to be ready for which release.



A contract is drawn up for the committed set of required features.

**ANSWER:** (d) A contract is drawn up for the committed set of required features.

20.Question 20

A specific Extreme Programming practice is to have a system \_\_\_, so that the product intent or design can be easily explained to others.



metaphor



vision



explanation



design

**ANSWER:** (a) metaphor

21.Question 21

Which one of the following upholds the Extreme Programming practice of simple design?



Make detailed designs of all your requirements.



Design just what you need to make your high-priority requirements work.



Give your product a simple name.



Create a design that covers many future possibilities.

**ANSWER:** (b) Design just what you need to make your high-priority requirements work.

22.Question 22

Which of the following statements is true about the Extreme Programming practice of continuous testing?



Tests are written for a required feature by the client writing unit tests.



Tests are written for a required feature to validate the product.



Tests are written for a required feature just after its source code is written.



Tests are written for a required feature before its source code is written.

**ANSWER:** (d) Tests are written for a required feature before its source code is written.

23.Question 23

In the Extreme Programming practice of continuous testing, what type of test is used by the client to check that each expected feature of the overall product works as specified?



Extreme test



Acceptance test



Unit test



Continuous test

**ANSWER:** (b) Acceptance test

24.Question 24

In the Extreme Programming practice of pair programming, which two of the following statements is true?



Pair programming increases code review.



A pair of developers works side-by-side, each with their own computer and task.



A pair of developers works at the same computer, with one assigned to do code review.



A pair of developers works at the same computer, on the same task.

**ANSWER:** (a) Pair programming increases code review.

(d) A pair of developers works at the same computer, on the same task.

25.Question 25

In Scrum, the project timeline is divided into fixed-length time boxes known as \_\_\_, with each typically lasting \_\_\_.



sprints / one or two months



sprints / one or two weeks



scrums / one or two months



scrums / one or two weeks

**ANSWER:** (b) sprints / one or two weeks

26.Question 26

In Scrum, the \_\_\_ is responsible for \_\_\_ on the product backlog.



scrum master / collecting requirements



product owner / prioritizing requirements



scrum team / prioritizing requirements



product owner / assigning team members to requirements

**ANSWER:** (b) product owner / prioritizing requirements

27.Question 27

In Scrum, who can make changes to the requirements on the product backlog?



Product owner



Product master



Scrum master



Anyone on the scrum team

**ANSWER:** (a) Product owner

28.Question 28

What are two scrum events that are facilitated by a scrum master?



Daily planning and sprint review



Daily scrum and roadblock removal



Daily scrum and sprint planning



Sprint planning and daily retrospective

**ANSWER:** (c) Daily scrum and sprint planning

29.Question 29

How can waste arise in software development? (Choose two that are correct)



The developers reuse standard software components.



Each developer is busy, but required features are not fully "done".



Knowledge is shared within the team.



The requirements are unclear.

**ANSWER:** (b) Each developer is busy, but required features are not fully "done".

(d) The requirements are unclear.

30.Question 30

In Lean software development, how can amplifying learning occur? (Choose two that are correct)



The developers focus on one expedient solution.



The developers continuously develop alternative solutions to the problem.



The developers show all alternative solutions to the client.



The developers watch educational online videos while on a programming task.

**ANSWER:** (b) The developers continuously develop alternative solutions to the problem.

(c) The developers show all alternative solutions to the client.

31.Question 31

In Lean software development, what does the principle of deciding as late as possible mean?



Decisions are made after having enough information from considering the alternatives.



Decisions are made just before a deadline.



Decisions are made to choose the latest alternative.



Decisions are made to delay the product delivery to a later date.

**ANSWER:** (a) Decisions are made after having enough information from considering the alternatives.

32.Question 32

In Lean software development, what does the principle of delivering as fast as possible mean? (Choose three that are correct)



Iterations are short, so feedback is frequent, and product evolution is rapid.



The software product is delivered rapidly via courier.



Working alternatives are rapidly created.



The software product is initially simple, to reach the market rapidly.

**ANSWER:** (a) Iterations are short, so feedback is frequent, and product evolution is rapid.

(c) Working alternatives are rapidly created.

(d) The software product is initially simple, to reach the market rapidly.

33.Question 33

In Lean software development, what does building quality or integrity in mean? (Choose two that are correct)



Certain sprints are dedicated to focus on quality.



The developers refactor the source code to be simpler and easier to modify.



The developers apply practices to avoid or quickly catch errors while making the software product.



External inspectors determine whether the software product is high quality.

**ANSWER:** (b) The developers refactor the source code to be simpler and easier to modify.

(c) The developers apply practices to avoid or quickly catch errors while making the software product.

34.Question 34

In Lean software development, what does seeing the whole mean? (Choose two that are correct)



The end user experiences a cohesive software product.



The software product is understood in the context of other products by the same maker.



Developers leave it to the managers to understand the big picture.



The whole software product is merely the sum of individual features.

**ANSWER:** (a) The end user experiences a cohesive software product.

(b) The software product is understood in the context of other products by the same maker.

35.Question 35

In Kanban, the columns on the board represent \_\_\_.



calendar months



states that tasks undergo



individual team members



sprints

**ANSWER:** (b) states that tasks undergo

36.Question 36

Following Scrum and Kanban, for a small feature development task, what should the done column signify?



The feature is written.



The feature is written, tested, documented, and accepted.



The feature is written, tested, and documented.



The feature is written and tested.

**ANSWER:** (b) The feature is written, tested, documented, and accepted.