Started on	Tuesday, 17 August 2021, 10:17 AM
State	Finished
Completed on	Tuesday, 17 August 2021, 10:55 AM
Time taken	38 mins 35 secs
Marks	10.50/48.00
Grade	**2.19** out of 10.00 (**22**%)

Question **1**

Incorrect

Mark 0.00 out of 1.00

Suppose system engineers evaluate the cost of a software and conclude that the cost of maintenance is 3 times the cost of development. Given the standardized ratio of costs associated with requirements specification, design, coding, and testing, what % of the total software cost is reserved for testing activities?

[Refer to values given in the Ian Sommerville text book only.]

Answer: 70 ✖

The correct answer is: 10

Question **2**

Incorrect

Mark 0.00 out of 1.00

There are many reasons related to Software Project Failure. Select the option which represents the reasons related to the lack of using Software Engineering techniques.

1. Good programmers can easily write code for complex systems.
2. New systems require novel capabilities and new software engineering techniques.
3. Rapid deployment challenges force reduced software documentation.

○ 1, 2, and 3.

○ 1 only.

○ 1 and 2.

○ 2 only.

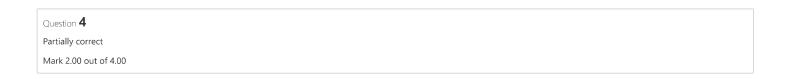◉ 2 and 3.   ✖

The correct answer is:
1 only.

Question **3**

Incorrect

Mark 0.00 out of 4.00

ACM/IEEE-CS Joint Task Force on Software Engineering Ethics and Professional Practices has come up with 8 principles (or dimensions) that software engineers shall adhere to. Drag and Drop the correct dimension beside each statement mentioned below.

1. A software engineer shall not develop and introduce malware in an Android app consciously. | CLIENT AND EMPLOYER | ✖

2. A software engineer is aware of certain standard violations going on in his / her workplace. He/She raises his/her voice against it.
| PROFESSION | ✖

3. A software engineer must acknowledge his / her colleagues for any help taken from them in their own work. | MANAGEMENT |
✖

4. JioMeet is facing legal actions for plagiarism from Zoom for violating which ethical dimension? | PRODUCT | ✖

| PUBLIC | | JUDGEMENT |

              | COLLEAGUES | | SELF |

The correct answer is:

ACM/IEEE-CS Joint Task Force on Software Engineering Ethics and Professional Practices has come up with 8 principles (or dimensions) that software engineers shall adhere to. Drag and Drop the correct dimension beside each statement mentioned below.

1. A software engineer shall not develop and introduce malware in an Android app consciously. [PUBLIC]

2. A software engineer is aware of certain standard violations going on in his / her workplace. He/She raises his/her voice against it. [JUDGEMENT]

3. A software engineer must acknowledge his / her colleagues for any help taken from them in their own work. [COLLEAGUES]

4. JioMeet is facing legal actions for plagiarism from Zoom for violating which ethical dimension? [MANAGEMENT]

Question **4**

Partially correct

Mark 2.00 out of 4.00

In the Software Engineering professions, there are areas where standards of acceptable behavior are not bound by laws but by the more tenuous notion of professional responsibility. In the following sentences you are violating some such responsibility. Selecting the right choice from the drop-down menu.

You sign a non-disclosure agreement with a company where you do your internship but during your project viva you give all the implementation details: [Confidentiality] ✔ .

You are hired as a developer in a software company but you go out of the way to help a friend who has been hired as a tester:

[Intellectual Property Rights] ✖

You connect to your friends through Facebook from the official laptop given to you by the company during office hours:

[Computer Misuse] ✔

You write and publish a single-author paper about the work you did during your internship: [Confidentiality] ✖

The correct answer is:

In the Software Engineering professions, there are areas where standards of acceptable behavior are not bound by laws but by the more tenuous notion of professional responsibility. In the following sentences you are violating some such responsibility. Selecting the right choice from the drop-down menu.

You sign a non-disclosure agreement with a company where you do your internship but during your project viva you give all the implementation details: [Confidentiality].

You are hired as a developer in a software company but you go out of the way to help a friend who has been hired as a tester: [Competence]

You connect to your friends through Facebook from the official laptop given to you by the company during office hours: [Computer Misuse]

You write and publish a single-author paper about the work you did during your internship: [Intellectual Property Rights]

Question **5**

Incorrect

Mark 0.00 out of 1.00

Which of the following statements about Software Process Models are incorrect?

I. Plan-driven model is a Waterfall Model.

II. Spiral model is an agile model that computes risks.

III. Agile models are incremental in nature and vice-versa.

IV. Reusable Software Engineering uses a plan-driven approach.

○ I, III, and IV.

○ All of the above.

○ II and IV only.

○ I, II, and III

◉ None of the above.   ✖

The correct answer is:
I, II, and III

Question **6**

Incorrect

Mark 0.00 out of 2.00

Each user story card has some **_points_** associated with it which reflects the amount of work that needs to be done for implementing it. The total number of points addressed in a sprint defines its **_velocity_**. Consider the following 5 sprints that were performed:

Sprint 1: 8 points

Sprint 2: 13 points

Sprint 3: 18 points

Sprint 4: 20 points

Sprint 5: 4 points

What is the average sprint velocity? (Upto 2 decimal places)

Answer: | 12.60 | ✖

The correct answer is: 17.00

Question **7**

Partially correct

Mark 2.00 out of 4.00

Suggest the most appropriate generic software process model that might be used as a basis for managing the development of the following systems:

A system to control antilock braking in a car

| Agile Process |

✖

An interactive travel planning system that helps users plan journeys with the lowest environmental impact

| Incremental Development |

✔

A university accounting system that replaces an existing system

| Re-usable Software Engineering |

✔

A virtual reality system to support software maintenance

| Waterfall Model |

✖

The correct answer is:

A system to control antilock braking in a car → Waterfall Model,

An interactive travel planning system that helps users plan journeys with the lowest environmental impact → Incremental Development,

A university accounting system that replaces an existing system → Re-usable Software Engineering,

A virtual reality system to support software maintenance → Agile Process

Question **8**

Partially correct

Mark 2.00 out of 3.00

Select the correct choice from the drop-down menu after each statement.

Prototyping reduces the cost of rework by assuming that the customer will change the requirements.

| True |

✔

Prototyping can help in embracing changes to the business requirements at low costs.

| True |

✖

Customers can measure progress in Waterfall model but Managers cannot measure progress in Incremental development.
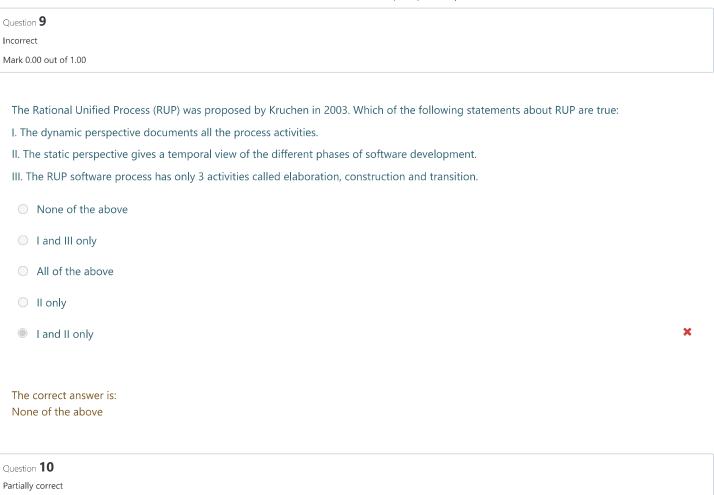
| False |

✔

The correct answer is:

Prototyping reduces the cost of rework by assuming that the customer will change the requirements. → True,
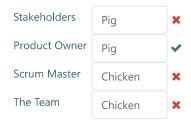
Prototyping can help in embracing changes to the business requirements at low costs. → False,

Customers can measure progress in Waterfall model but Managers cannot measure progress in Incremental development. → False

Question **9**

Incorrect

Mark 0.00 out of 1.00

The Rational Unified Process (RUP) was proposed by Kruchen in 2003. Which of the following statements about RUP are true:

I. The dynamic perspective documents all the process activities.

II. The static perspective gives a temporal view of the different phases of software development.

III. The RUP software process has only 3 activities called elaboration, construction and transition.

○ None of the above

○ I and III only

○ All of the above

○ II only

◉ I and II only   ✗

The correct answer is:
None of the above

Question **10**

Partially correct

Mark 0.50 out of 2.00

The Scrum Joke: A Chicken and a Pig got together and decided to open a Bed-n-Breakfast. They decided to come up with a name. The Chicken said - "Let's call it HAM AND EGGS!!" The Pig disagreed and said - "I don't like the idea because I will be _committed_ (for the Ham) while you will only be _involved_ (for the Eggs)."

Assign the following Scrum participants to right category (_Chicken or Pig_):

Stakeholders	Pig	✗
Product Owner	Pig	✔
Scrum Master	Chicken	✗
The Team	Chicken	✗

The correct answer is:
Stakeholders → Chicken,

Product Owner → Pig,

Scrum Master → Pig,

The Team → Pig

Question **11**

Incorrect

Mark 0.00 out of 1.00

Which of the following statements is true about software testing?

I. The V-model allows both verification and validation.

II. Beta testing is a type of User Acceptance Testing.

III. Verification answers the question "Are we building the right product?"

IV. Validation answers the question "Are we building the product right?"

⦿ All of the above.   ✖

○ II, III, and IV only.

○ None of the above.

○ I and II.

○ I, III, and IV only.

The correct answer is:
I and II.

Question **12**

Incorrect

Mark 0.00 out of 1.00

The ACM/IEEE Code of Ethics applies to:

1. Software Practitioners

2. Software Policy Makers

3. Software Engineering Students

4. Software Engineering Educators

5. Software Distributors

○ 1, 2, 3, and 4 only.

○ 1, 3, and 4 only.

○ All of the above.

○ 1 only.

⦿ 1, 2, and 5 only.   ✖

The correct answer is:
1, 2, 3, and 4 only.

Question **13**

Incorrect

Mark 0.00 out of 4.00

Correlate the following statements with the corresponding attributes of a good software.

The software must be easy-to-use and understandable to the end user.

| Adaptability | ✖ |

The software needs to be robust to system failures.

| Efficiency | ✖ |

The software must be able to adapt and survive in a changing business environment.

| Acceptability | ✖ |

The software must be able to adapt and interact with other systems in the business environment.

| Maintainability | ✖ |

The correct answer is:
The software must be easy-to-use and understandable to the end user. → Acceptability,

The software needs to be robust to system failures. → Dependability,

The software must be able to adapt and survive in a changing business environment. → Maintainability,

The software must be able to adapt and interact with other systems in the business environment. → Acceptability

Question **14**

Incorrect

Mark 0.00 out of 6.00

Match the following extreme programming practices to the corresponding principles of Agile methods.

The Sprint backlog is a subset of the Product Backlog

| Maintain Simplicity | ✖ |

Removing "Smelly Code" is desirable in every increment.

| Code Refactoring | ✖ |

Test-first development helps in delivering frequent system releases to the customer.

| Pair Programming | ✖ |

Regression testing helps in identifying if the new features have introduced any bugs.

| Embrace Change | ✖ |

An expert in the .NET framework leaves the project but software development continues.

| Pair Programming | ✖ |

The driver and the navigator should keep changing their roles every half an hour.

| Pair Programming | ✖ |

The correct answer is:
The Sprint backlog is a subset of the Product Backlog → Incremental Development,

Removing "Smelly Code" is desirable in every increment. → Maintain Simplicity,

Test-first development helps in delivering frequent system releases to the customer. → Embrace Change,

Regression testing helps in identifying if the new features have introduced any bugs. → Incremental Development,

An expert in the .NET framework leaves the project but software development continues. → People, Not Process,

The driver and the navigator should keep changing their roles every half an hour. → People, Not Process

Question **15**

Partially correct

Mark 3.00 out of 4.00

Choose the best options.

_____ helps in identifying the interaction between individual components.

| Interface design | ✔ |

ArchiMate is an open-source modelling language that helps in

| Architecture design | ✔ |

Entity-Relationship diagrams help in creating the

| Database design | ✔ |

UML is extensively used in

| Interface design | ✘ |

The correct answer is:

_____ helps in identifying the interaction between individual components. → Interface design,

ArchiMate is an open-source modelling language that helps in → Architecture design,

Entity-Relationship diagrams help in creating the → Database design,

UML is extensively used in → Component design

Question **16**

Incorrect

Mark 0.00 out of 3.00

Which value of Scrum is violated in each of the following cases?

A team member observes that the Scrum Master is not doing his/her duties correctly; but refuses to speak up in the Scrum Retrospective.

| Openness |
✘

A team member refuses to come to the Scrum Review as he/she failed to deliver the assigned user stories.

| Self-commitment |
✘

The Scrum Master makes the team work overtime for at least 4-5 days in each sprint.

| Focus |
✘

The correct answer is:

A team member observes that the Scrum Master is not doing his/her duties correctly; but refuses to speak up in the Scrum Retrospective. → Courage,

A team member refuses to come to the Scrum Review as he/she failed to deliver the assigned user stories. → Openness,

The Scrum Master makes the team work overtime for at least 4-5 days in each sprint. → Respect

Question **17**

Partially correct

Mark 1.00 out of 4.00

Requirements Engineering is one of the most critical activities associated in the software development process. Choose the option that best matches each given sentence.

Checking for requirement inconsistencies helps in reducing the cost of recovering from errors.

Requirements Elicitation

✖

High-level abstract requirements help the user; fine-grained detailed requirements help the system developers.

Requirements Specification

✔

Throw-away prototypes helps in understanding the requirements of the user.

Requirements Analysis

✖

_____, requirements elicitation and requirements specification are interleaved.

Requirements Validation

✖

The correct answer is:

Checking for requirement inconsistencies helps in reducing the cost of recovering from errors. → Requirements Validation,

High-level abstract requirements help the user; fine-grained detailed requirements help the system developers. → Requirements Specification,

Throw-away prototypes helps in understanding the requirements of the user. → Requirements Elicitation,

_____, requirements elicitation and requirements specification are interleaved. → Requirements Analysis

Question **18**

Incorrect

Mark 0.00 out of 2.00

Decide if the following statements are true or false.

Agile always aims to achieve continuous code and architecture refactoring.	True	✖
User stories suffer from imprecise requirement specifications.	False	✖
Weinberg's Egoless Programming is aligned with Pair Programming principles.	False	✖
Customer involved testing and automated testing are conflicting approaches for the Agile process.	True	✖

The correct answer is: Agile always aims to achieve continuous code and architecture refactoring. → False,
User stories suffer from imprecise requirement specifications. → True,

Weinberg's Egoless Programming is aligned with Pair Programming principles. → True,

Customer involved testing and automated testing are conflicting approaches for the Agile process. → False

◄ CS 363: Groups, Projects, TAs and Slots

Jump to...