

CS510

Software

Requirements

and

Specifications

Final Term Exam Screenshots

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"Librarian Updates Catalogue".
From above statement, _____ is use case.

Select the correct option

☐	Librarian
☐	Catalogue
☐	Update Catalogue
☐	None of the given options

In context of UseCase diagram, association between an actor and usecase is represented by a/an:

Select the correct option

☐	Oval
☐	Line
☐	Human like Symbol
☐	None of the given options

Which of the following is/are NOT a requirement model?

Select the correct option

☐	Use case diagram
☐	Sequence diagram
☐	Finite state machine
☐	None of the given options

Which of the given is a type of contextual requirement elicitation technique?

Select the correct option

☐	Laddering
☐	Card Sorting
☐	Interviews
☐	Observation

An _____ dependency, is a generalization relationship denoting the inclusion of the behaviour described by another use case.

Select the correct option

☒	Extend
☐	Include
☐	Solve
☐	Verify

Use case diagram specifies:

Select the correct option

☒	What tasks, a system performs
☐	Who uses the system
☐	Which user interacts with which use case
☐	All of the given options

In use case diagram, a human like symbol represents:

Select the correct option

☐	Use case
☐	Actor
☐	Model
☒	None of the given options

Which of the following is not a proper use case name?

Select the correct option

☐	BookOrder
☐	CancelOrder
☐	FlightNumber
☐	TrackOrder

"Place order" is a:

Select the correct option

☐	Use case
☐	Actor
☐	Relation
☒	Model

Which of the following is a type of cognitive requirement elicitation technique?

Select the correct option

☐	Laddering
☐	Interviews
☐	Observation
☐	Brainstorming

Softgoal interdependencies can be captured with _____ contributions

Choices:

only positive

only negative

Positive or negative

Neither positive nor negative

A state, in state machine modeling is represented by _____

Choices:

Circle

Triangle

Oval

Round-Cornered Rectangle

In use case diagram, _____ is a generalization relationship denoting the inclusion of the behavior described by another use case.

Choices:

include dependency

Exclude dependency

Eliminate dependency

ignore dependency

_____ is an organized set of activities, which transforms inputs to outputs.

Choices:

Error

Process

Threat

Bug

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_____ is a process of documenting the user's needs and constraints clearly and precisely.

Choices:

Requirement Failure

Requirement casualty

Requirement elimination

Requirement Specification

According to IEEE/ANSI Standard 830-1993, specific requirements covering

_____.

Choices:

Functional requirements only

Non-function requirements only

Interface requirements only

Functional, Non-functional and Interface requirements

In context of KOAS Object Model, which of the following represent(s) independent, active object(s)?

Choices:

Entities

Agents

Associations

Both entities and associations

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Which of the following is not one of the purpose of requirement traceability?

Choices:

Finding alternate design options

Finding cumulative system scope

Finding project plan

All of the given options

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Identify the TRUE statement(s) regarding goal oriented requirement engineering (GORE).

Choices:

Goals in GORE cover different types of concerns including functional and non functional.

GORE focuses only on “What” aspect.

GORE focuses only on “HOW aspect.

None of the given options.

GORE is concerned with _____ of stakeholder purposes (“goals”) in order to derive functional and non-functional requirements.

Choices:

Acquisition

Modeling

Analysis

All of the given options

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Identify the TRUE statement(s).

Choices:

A requirement is a particular way of achieving a goal.

Goals are at a higher level than requirements

Goals are more stable than corresponding requirements

All of the given options

Which of the following is/are not KAOS model(s)?

Choices:

Usecase model

State machine

Activity diagram

All of the given options

After all requirements and expectations are assigned to a responsible agent, a diagram is generated for each agent, listing all requirements and expectations that he has been assigned, the diagram is called:

Choices:

Responsibility diagram

System diagram

Goal diagram

Object diagram

In context of KAOS operation model, operations are represented as:

Choices:

Ovals

Rectangles

Parallelogram

None of the given options

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In context of KAOS operation model, through an operation on an object, we can:

Choices:

Create objects

Trigger object state transitions

Activate other operations

All of the given options

In context of KAOS operation model, behavior is expressed in terms of _____ performed by agents.

Choices:

Operations

Attributes

Properties

All of the given options

_____ is an informal discussion where free expression of ideas is given to every participant for a new kind of system to be developed.

Choices:

Brainstorming

Questionnaire

Close Interview

All of the given options

The techniques that collect requirements in context of the user are called:

Choices:

Contextual techniques

Conventional techniques

Hybrid techniques

Domain techniques

Which of the following is NOT requirements elicitation technique?

Choices:

Interview

Questionnaire

Brainstorming

Normalization

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This Testing Technique examines the basic program structure and it derives the test data from the program logic; Ensuring that all statements and conditions executed at least once. It is called as

Choices:

Black box Testing

Block box Testing

White box Testing

Grey Box Testing

Which of the following is/are usability evaluation method(s)?

Choices:

Testing

Inspection

Inquiry

All of the given options

Which of the following is NOT one of the metrics to measure usability?

Choices:

Time to complete a task

Fraction of task completed

Number of errors

Degree of Coupling

“The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction” is called:

Choices:

Usability

Interoperability

Reliability

Maintainability

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Which of the following is requirement prioritization technique?

Choices:

Value oriented prioritization

Design oriented prioritization

Architecture oriented prioritization

None of the given options

Identify INCORRECT statement(s) about agile:

Choices:

Agile concentrates to have working applications

Agile supports large documentation

Agile assures to adopt and respond frequently over change request

All of the given options

Agile focus and prefer more on:

Choices:

Individual capabilities

Tools

Techniques

Processes

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Which of the following is/are valid reason(s) for requirements to be changed?

Choices:

Lack of domain knowledge at start

Change in customer prioritization

Change in platform or environment

All of the given options

Which of the following is not part of “General Description” section of Software requirement specification template (standard 830-1993 by IEEE)?

Choices:

Product perspective

Product functions

User characteristics

Scope of the product

Requirements Document consists of all of the given except _____.

Choices:

Services provided by the system

Functions provided by the system

Constraint on the system

Project schedule

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“Requirements Document” is used to communicate requirements to _____

Choices:

Customers

Engineers

Managers

Customers, engineers and managers

If a software application fulfills its specifications but deviates from users expectations, then it means that software is verified but not _____.

Choices:

Traced

Checked

Validated

Corrected

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The processes in which we check a product against its specifications, is called _____.

Choices:

Verification

Validation

Investigation

Inspection

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_____Links requirements to design and implementation components.

Choices:

Backward-from traceability

Forward-from traceability

Backward-to traceability

Forward-to traceability

“Requirements Traceability” refers to ability to describe and follow the life of a requirement, in _____ direction.

Choices:

forward

backward

both a forward and backward

neither forward nor backward

SRS is prepared in _____ phase of SDLC

Choices:

Design phase

Testing Phase

Requirement Phase

Evaluation Phase

Operationalizing softgoal means:

Select the correct option

- | | |
|----------------------------------|---|
| ☐ | Finding Non functional softgoals |
| ☒ | Finding lower-level (design) techniques for satisficing NFR softgoals |
| ☐ | Finding the design process to implement requirements |
| ☐ | None of the given options |

Entities are independent because:

Select the correct option

- | | |
|----------------------------------|---|
| ☐ | They don't have methods |
| ☐ | They can't perform operations |
| ☒ | Their descriptions do not need to refer to other objects of the model |
| ☐ | They don't have any attributes |

In context of NFR framework, which of the following is NOT one of the framework activities:

Select the correct option

- | | |
|----------------------------------|---|
| ☐ | Capturing NFRs for the domain of interest |
| ☐ | Decomposing NFRs |
| ☐ | Identifying possible NFR operationalizations |
| ☒ | Extracting functional requirements from Non functional requirements |

Associations are _____ objects:

Behaviors are expressed in terms of _____ performed by agents.

Select the correct option

- | | |
|----------------------------------|-------------------------|
| ☐ | Independent and active |
| ☐ | Independent and passive |
| ☐ | Dependent and active |
| ☒ | Dependent and passive |

Select the correct option

- | | |
|----------------------------------|--------------|
| ☐ | Associations |
| ☐ | Goals |
| ☒ | Operations |
| ☐ | Attributes |

Softgoals are goals that:

Select the correct option

- | | |
|----------------------------------|---|
| ☒ | Do not have a clear-cut criterion for their satisfaction |
| ☐ | Do have a clear-cut criterion for their satisfaction |
| ☐ | Are nothing but implementations of requirements |
| ☐ | Are nothing but implementations of different design choices |

A _____ describes for each agent, the requirements and expectations that he is responsible for.

Select the correct option

☒	Responsibility diagram
☐	Goal Model
☐	Softgoal Interdependency Graph
☐	Object Model

Softgoal Interdependency Graph represents:

To be complete, operation model must specify:

Select the correct option

☐	Softgoals
☐	Softgoal refinements (AND/OR)
☐	Softgoal contributions (Positive/Negative)
☒	All of the given options

Select the correct option

☒	The agents who perform the operations
☐	The input and output data for each operation
☐	When operations are to be executed
☐	All of the given options

In context of Usability Evaluation, mention any four Metrics used to measure Usability.

Write down any four strengths of Extreme Programming and Scrum.

What are the different types of KAOS Models? Write their names.

Suppose you have a scheduler which schedules different tasks. As soon as scheduler receives a new task T, it schedules this task based on specific algorithm. For this case, draw state machine diagram including all states and transitions.

Requirements cannot be managed properly if requirements traceability is not implemented. You are required to describe the key classification of requirement traceability.

E = Number of Edges = 8

N = Number of Nodes = 6

Using the above measures, calculate the cyclomatic complexity, $V(G)$ of Graph G.

In context of KAOS operation model, mention the symbols for following:

1) Operations

2) Events

Mention at least one difference between Goal Oriented Requirement Engineering and Traditional Requirement Engineering.

Describe role of following terms in State Machine Modeling.

a) Condition

b) Attribute

c) Action

What are the key classifications of requirement traceability?

_____ links requirements with other requirements which are, in some way, dependent on them.

Choices:

Requirements-requirements traceability

Requirements-rationale traceability

Requirements-sources traceability

Requirements-error traceability

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This type of testing is not concerned with how the inputs are transformed into outputs. As the system's internal implementation details are not visible to the tester. It is called as

Choices:

Black box Testing

White box Testing

Open box testing

Blue block testing

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Which of the following Software development approaches focuses on heavy documentation?

Choices:

Scrum

RUP

Extreme Programming

Both Extreme Programming and Scrum

Passive objects are the ones that:

Choices:

Always cause errors

Don't have name

Can't perform operations

Can always perform operations

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Which of the following is not a symbol used in KAOS goal model?

Choices:

Parallelogram

Arrow

Human like symbol

Circle

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