**SWR302 – QUIZLET**

**Which technique overlaps for use in requirements elicitation and requirements validation?**

A. Prototypes

B. Facilitator meetings

C. Observations

D. Interviews

**Requirements reviews: Can not be done before completion of the**

A. Systems definition document

B. Systems specification document

C. Software requirements specification document

D. Baseline specification for new release

**Requirement Baselines are**

A. Requirements committed to be implemented

B. Requirements committed to be tested

C. Requirements within scope

D. Requirements out of scope

**Which of the following is not embedded design that would be written in the SRS?**

A. Partitioning of software into modules

B. Specify logical requirements for the software

C. Describe the flow of information or control between modules

D. Choose data structures

**Which of the following requirement properties would be considered an emergent property of a software program?**

A. The fault detection system of the software

B. The programming language of the system

C. The reliability of the software

D. The number of lines of code

**Which is not describe the correct purpose of requirements elicitation?**

A. Collect, discover, extract, and define requirements

B. Discover business, user, functional, and nonfunctional requirements, due to along with other types of information

C. Collect, discover, extract, and define exactly what are the outputs of project

D. Identify the needs and constraints of the various stakeholders for a software system

**What presents the information and preconditions necessary for a business analysis task to begin?**

A. Activity

B. Input

C. Output

D. Technique

**Identify key roles and selecting requirements activities is done as part of which knowledge area?**

A. Requirements Analysis

B. Requirements Development

C. Business Analysis Planning and Monitoring

D. Requirement Elicitation

**Requirement elicitation is communication intensive and should be aligned with:**

A. The Cost-Benefit analysis

B. The Business case

C. The stakeholders needs and constraints

D. The requirement management plan

**What does allocation try to satisfy in the assigning of responsibility to components?**

A. Requirements

B. Validation

C. External interfaces

D. Testing

**What defines the business analysis team roles, deliverable to be produced, and tasks to be performed?**

A. Requirements process

B. Project management plan

C. Solution approach

D. Business analysis approach

**Software requirements validation should be viewed by whom and how often?**

A. Requirements analysts, often

B. Stakeholders, often

C. Customers, never

D. Users, never

**Why is base-lining project?**

A. To minimize miscommunication and unnecessary rework

B. To get an agreement for each set of requirements after the team implements them

C. To get disagreement for all the requirements of project

D. To get an agreement for all the requirements of project

**Product requirement validation occurs primarily after**

A. Testing

B. Analysis

C. Elicitation

D. Specif‌ication

**The BEST way to conduct a requirements validation review is to \_**

A. examine the system model for errors

B. have the customer look over the requirements

C. send them to the design team and see if they have any concerns

D. use a checklist of questions to examine each requirement

**Select the true statements (two options)**

A. Verif‌ication determines whether the product of some development activity meets its requirements (doing the thing right).

B. Validation determines whether the product of some development activity meets its requirements (doing the right thing)

C. Verif‌ication assesses whether a product satisf‌ies customer needs (doing the thing right).

D. Validation assesses whether a product satisfies customer needs (doing the right thing)

**If requirements are easily understandable and def‌ined then which software process model is best suited?**

A. Spiral model

B. Waterfall model

C. Prototyping model

D. Agile model

**Which of the following property is least critical to the interaction between process actors and the requirements process?**

A. The education of the actor

B. The nature of their 'stake' in the process

C. The requirements they elicit

D. Process actor identif‌ication

**What is considered the traditional means of requirements elicitation?**

A. Scenarios

B. Observations

C. Prototypes

D. Interviews

**Which is NOT a technique to f‌ind missing requirements?**

A. Decompose high-level requirements into enough detail to reveal exactly what is being requested

B. Check boundary values for missing requirements

C. Check a list of tasks corresponding with end users

D. Create a checklist of common functional areas to consider for your projects

E. Trace system requirements, user requirements, event-response lists, and business rules to their corresponding functional requirements to make sure that all the necessary functionality was derived

**The use of traceability tables helps to:**

A. debug programs following the detection of run-time errors

B. determine the performance of algorithm implementations

C. identify, control, and track requirements changes

D. Minimize miscommunication and unnecessary rework

**Which is NOT the type of internal quality?**

A. Verif‌iability

B. Modif‌iability

C. Eff‌iciency

D. Availability

E. Scalability

**Requirements gathering activities are also known as requirements:**

A. Planning

B. Development

C. Analysis

D. Elicitation

**Portability is an internal quality attribute which could be described:**

A. How well the system protects against unauthorized access to the application and its data *(Security)*

B. How quickly and predictably the system responds to user inputs or other events *(Performance)*

C. How easy it is for people to learn, remember, and use the system *(Usability)*

D. How easily the system can be made to work in other operating environments *(Portability)*

**In order to determine solution to business problems, the business analyst applies a set of:**

A.Inputs and outputs

B. Practices and processes

C. Tasks and techniques

D. Activities and tasks

**The software requirements specif‌ication should NOT be called \_**

A. system specif‌ication

B. functional specification

C. a business requirements document (BRD)

D. user requirements

E. product specification

F. requirements document

**Which is (are) the skills of business analyst on Agile project?**

A. Understanding of the business area that the project is involved with

B. Understanding of the agile development process

C. Ability to document requirements formally or informally demnding on the need of the project

D. All of the mentioned

E. Ability to facilitate a team to consensus on scope. design decisions. and implementation decisions

**Which of the following is NOT a good characteristic well written of a software requirements specification?**

A. Consistent

B. Ranked

C. Redundant

D. Verif‌iable

**Giving a business rule “All website images must include alternative text to be used by electronic reading devices to meet accessibility requirements for visually impaired users.” This is a type of \_\_\_\_rule.**

A. inferences

B. constraint

C. facts

D. action enabler

E. computation

**Giving a business rule " If the customer ordered a book by an author who has written multiple books, then offer the author's other books to the customer before completing the order.'**

**This is a type of \_\_\_\_rule.**

A. inferences

B. constraint

C. facts

D. action enabler

E. computation

**Giving a business rule "A discount is calculated based on the size of the current order, as defined in Table BR-060.'**

**This is a type of \_\_\_\_rule.**

A. inferences

B. constraint

C. facts

D. action enabler

E. computation

**Which of the following is the technical manager not responsible for?**

A. Determining the adequacy of the requirements specifications.

B. Controlling the volatility of the requirements and manage change history.

C. Re-estimating the cost and schedule of the project when the requirements change.

D. Negotiating requirements changes between the acquirer (customer) and the developer.

**When does the business analyst ensure the feasibility of the proposed requirements to support the business and user needs?**

A. As part of building a business case

B. During Requirements Analysis

C. When organizing business requirements

D. While planning and monitoring tasks

**The voice of the customers may be derived from**

A. Impact analysis

B. Customer complaints

C. Business Rules

D The Business Case

\_\_\_\_\_\_is the process of examining a project to identify potential threats

A. Risk assessment

B. Risk resolution

C. Risk monitoring

0. Risk avoidance

E. Risk control

**To understand user tasks and goals and the business objectives with which those tasks align, the Business Analysis should discuss with users at which stage(s)**

A. Validation

B. Specif‌ication

C. Elicitation

D. Analysis

**Which document is used to derive the software requirements specification?**

A. The System Definition Document

B. System Requirements Specification

C. IEEE 1362 Concept of Operations

D. IEEE 1016 Software Design Descriptions

**To depict the complex logic, which representation technique should be used? (choose 2)**

**Select one:**

a. Data dictionary

b. Decision tree

c. Swimlane diagram

d. State-transition diagram

e. Data flow diagram

f. Decision table

**Which dimension of requirement classification is critical for consideration of tolerant design?**

A. Whether the requirement is functional or non-functional.

B. Whether the requirement is a high or low priority.

C. Whether the requirement is on the product or process.

D. Whether the requirement is volatile or stable.

**Giving a statement in an Airport check-in kiosk application: "As a traveler. I want to check in for a flight so that I can fly to my destination". This is a(n)\_ example**

A. actor

B. use case

C. user story

D. entity

**Which is NOT the reuse barrier?**

A. Organizational culture

B. Inconsistent organization

C. Writing style

D. Ownership

E. Project type

**According to the SWEBOK Guide, what are the four major activities of the requirements engineering process?**

A. Identification, specification, construction, and testing

B. Elicitation, analysis, specification, and validation

C. Analysis, planning, construction, and verification

D. Elicitation, planning, construction, and testing

**Process quality and improvement relies most on which of the following?**

A. Product operator performance

B. Human factors

C. Customer preferences

D. Requirements process measures

**The requirement passed its tests after integration into the product. this is status**

A. approved

B. implemented

C. rejected

D. verified

**Which requirements should NOT be reused in the scope of cross an enterprise?**

A. Constraints

B. Stakeholder profiles

C. Security requirements

D. Business rules

**Which requirements should NOT be reused within an operating environment or platform?**

a. Constraints

b. Interfaces

c. Infrastructures of functionality needed to support certain types of requirements (such as a report generator)

d. Stakeholder profiles

**Which is NOT the type of requirements development tools?**

A Requirement Management tools

B. Elicitation tools

C. Modeling tools

D. Prototyping tools

**Why is Requirements Management important? It is due to the changes**

A. to the environment

B. in technology

C. in customers expectations

D. in the demand of stakeholders

E. All of the mentioned

**Which of the following you should be based on when you estimate the project size and effort?**

A. The number of individually testable requirements (Wilson 1995)

B. Function points (Jones 1996b; IFPUG 2010)

C. Story points (Cohn 2005; McConnell 2006) or use case points (Wiegers 2006)

D. The number, type, and complexity of user interface elements

E. Estimated lines of code needed to implement specific requirements

F. All of the mentioned answers

**You are a business analyst measuring alternatives against objectives and identifying trade offs to determine which possible solution is best. You are most likely engaged in what activity?**

A. Problem solving

B. Systems thinking

C. Creative thinking

D. Decision making

**Which is NOT the helpful of product backlog?**

A. It helps in managing the demands of stakeholders

B. It is prepared so that estimates can be given to each and every feature

C. It helps in determining what to prioritize first. Team ranks the item and then builds value.

D. It helps in planning the roadmap for the product

E. It helps in re-ranking the features so that more value can be added to the product.

**The business analyst team has put together the elicitation results documenting their understanding of the user need. What types of requirements have they developed at this point in time?**

A. Maintained and Reusable

B. Communicated and Confirmed

C. Stated and Unconfirmed

D. Validated and Confirmed

**Which is the benefit of the reuse requirements techniques?**

A. To estimate implementation effort if you have data available from implementing the same requirements on a previous project

B. Improve functional consistency across related members of a product line or among a set of business applications

C. Faster delivery, lower development costs, consistency both within and across applications, higher team productivity, fewer defects, and reduced rework

D. Save review time, accelerate the approval cycle, and speed up other project activities, such as testing

E. All the mentioned answers

**Which is not the purpose of software prototype technique?**

**Select one:**

a. Clarify, complete, and validate requirements

b. Specific technologies, tools, languages, and databases that must be used or avoided (constraints)

c. Create a subset that will grow into the ultimate product

d. Explore design alternatives

**Which is not a reuse success factor?**

A: Organizational culture

B. Interactions

C. Quality

D. National culture

E. Repository

F. Terminology

**Which is NOT belong to the case of use case traps?**

A. Including data def‌initions in the use cases

B. Including design in the use cases

C. Highly complex use cases

D. Use cases that users don't understand

E. Too many use cases

F. Depicts detail the use case story

**Software Requirement Specification (SRS) is also known as specification of**

A. White box testing

B. Black box testing

C. Integrated testing

D. Acceptance testing

**In the V model, the user requirements are detected by \_\_\_\_\_\_\_\_\_\_\_**

**Select one:**

a. System testing *(System requirement)*

b. Integration testing *(High level design)*

c. Acceptance testing *(User/Business requirement)*

d. Unit testing *(Coding)*

**Which of the following is most true about a non-functional requirement?**

A. Describes functions software is to execute

B. ls highly sensitive to the system architecture

C. ls derived from hardware requirements

D. Acts to constrain the software solution

**The system users have stated their needs for revised online order entry system capabilities. Her team needs the ability to perform online, remote order entry when they are traveling worldwide. What class or type of requirements best describe this need?**

A. Functional requirements

B. Business requirements

C. User requirements

D. Transition requirements

**What should the software requirements specification (SRS) writer avoid placing in the SRS environment of the SRS?**

A. External interfaces

B. Performance or functionality

C. Attributes or classification

D. Either design or project requirements

**As requirements are elicited, what source is most likely to impose previously unidentified user processes?**

A. Application domain specialists

B. The operational environment

C. The organizational environment

D. Stakeholders

**Which are the processes in requirements engineering?**

A. Elicitation

B. Specif‌ication

C. Analysis

D. Validation

E. Requirements management

F. All of the mentioned

**A key tool for software designer, developer and their test team is to carry out their respective tasks is defined by:**

a. Requirement documentation

b. User documentation

c. Software design documentation

d. Technical documentation

**Which is NOT the most important characteristics of product backlog?**

A. Highest ranking items are decomposed into smaller stories during release planning so that they can be completed in future iterations.

B. Multiple teams can work on a single product backlog.

C. Lowest ranking items are decomposed into smaller stories during release planning so that they can be completed in future iterations.

D. Each product should have one product backlog which can have a set of large to very large features.

E. Ranking of features is done based on business value, technical value, risk management or strategic fitness.

**Which is NOT the advantage of Agile methods?**

A. adapt with the requirements changes of stakeholders

B. puts considerable effort into trying to get the full requirements set 'right' early on.

C. breaking the development of software into short cycles

D. the development team could add a small set of functionalities based on priorities established by the customer

E. modify what already exists, enrich the initial features, add new ones, and correct defects that were discovered

**The work products produced during requirement elicitation will vary depending on the \_**

A. Stakeholders needs

B. software process being used

C. size of the product being built

D. size of the budget

**A concept of operations document (ConOps) should not be written**

A. In the user's language using the user's format

B. Mostly in narrative prose

C. With visual forms

D. Primarily in the developers technical language

**In the IEEE Std 1362 Concept of Operations (ConOps) Document, which of the following is fundamentally not included under the Concepts for the Proposed System (Clause 5)?**

A. Proposed design method of system

B. Operational policies and constraints

C. Description of the proposed system

D. Modes of operation

**If a requirements status is proposed then it**

A. is an approved requirement that has been removed *(deleted)*

B. Is work complete *(verified)*

C. Has been requested by an authorized source *(proposed)*

D. Is a requirement that was proposed , but not planned for implementation *(rejected)*

**Giving a condition example in specification of withdrawn money use case: "the ATM has dispensed money and printed a receipt'. This is a(n)**

A. exception

B. precondition

C. postcondition

D. extension

**A throwaway prototype is most appropriate when:**

A. Users need to judge whether the requirements will enable the necessary business processes

B. Have diff‌iculty envisioning the system from the requirements alone

C. All of the mentioned

D. the team faces uncertainty. ambiguity. incompleteness. or vagueness in the requirements

E. The gaps between customers and developers in the requirements

**Which activities are NOT belong to requirements status tracking?**

A. Tracking the status distribution of all requirements

B. Tracking individual requirements versions

C. Recording the status of each requirements

D. Defining possible statuses

**To express the user task descriptions. which representation technique is NOT suitable?**

A. Use case specif‌ications

B. Storyboards

C. Scenarios

D. User stories

**What is the most common type of scenario elicitation technique?**

A. The prototype

B. The use case

C. The facilitator meeting

D. Observation

**What is the most important attribute of a requirement?**

A. Identifier

B. Source

C. Verification procedure

D. Priority

**The requirements engineering process is \_**

A. The same for each organization and process

B. Initiated at the beginning of a project and continues to be ref‌ined throughout the lifecycle.

C. A discrete front-end activity of the software life cycle.

D. A continuous process that ends when requirements are specif‌ied and documented

**Which adverbs are the causes of requirements ambiguity in documenting Software Requirement Specif‌ication?**

A. appropriately

B. generally

C. reasonably

D. usually

E. approximately

F. all of the mentioned

**A listed acceptance criteria to fulfil certain requirements of a user and normally written from the perspective of an end-user. This is a**

A. product backlog

B. task

C. requirement

D. release

E. user story

F. time box

**Giving an example of quality requirements: 'After performing a f‌ile backup, the system shall verify the backup copy against the original and report any discrepancies'. This is a (an)—**

A. performance requirement

B. interoperability requirement

C. Robustness requirement

D. Integrity requirement

**Which of these steps in the planned change process puts the change plan into action?**

A. develop change goals

B. evaluate the plan

C. develop the change plan

D. select the change agent

E. implement the change

**Which of these steps in the planned change process provides the objective or expectation of how a change will respond to whatever**

A. develop change goals

B. evaluate the plan

C. develop the change plan

D. select the change agent

E. implement the change

**Which of these steps in the planned change process provides a roadmap for how the change will be implemented?**

A. develop change goals

B. evaluate the plan

C. develop the change plan

D. select the change agent

E. implement the change

**During which of these steps in the planned change process is used to determine how ready the organization and its members are for the change?**

A. develop change goals

B. evaluate the plan

C. develop the change plan

D. select the change agent

E. implement the change

**Which of these steps in the planned change process requires managers at all levels to be aware of the internal and external forces that potentially compromise the success and long-term sustainability of the organization?**

A. recognize the need for change

B. develop the change plan

C. develop change goals

D. evaluate the plan

E. implement the change

**What is a software engineer most likely to resolve by making a unilateral decision?**

A. Differences between incompatible features

B. Differences between developer perception and developer reality

C. Differences between requirements and resources

D. Differences between functional and non-functional requirements

**What is a best practice for change control?**

A. Submit multiple changes at one time

B. Open and honest communication

C. Give overviews of the changes

D. Hold change meetings

**Which of the following is NOT a type of software requirement?**

A. Complexity

B. Performance

C. Functionality

D. External Interface

**Due to the iterative nature of the requirements process, change has to be managed through the review and approval process. Which of the following is likely to require the least amount of management?**

A. Requirements tracing

B. Impact analysis

C. System def‌inition

D. Software conf‌iguration management

**Requirements tracing is most likely concerned with the following: Recovering the source of requirements from:**

A. Software requirement back to the system requirement it supports

B. Observation to elicitation technique

C. Analysis into requirements specification document

D. Software requirement to validation test

**What is a software requirements specification (SRS) document?**

**Select one:**

a. A document detailing software requirements and specifications

b. A document which features instructions for how to install new software and test it for errors

c. A document used while testing the software code for validity

d. A document listing the time it takes to execute the existing manual processes

**Which of the following would most likely be considered a product requirement?**

A. The software shall be written in Ada.

B. The student name shall be entered before the student grade.

C. The system requirements for the software shall be formatted according to IEEE Std 1233.

D. The software is built with company standards.

**Which of the following phrases most closely approaches verifiable language?**

A. "A good operability"

B. "Well enough"

C. "According to Standard X"

D. "Usually acceptable"

**Which of the following techniques has the process as below?**

**1. RETRIEVE relevant knowledge from other systems**

**2. TRANSPOSE it to the target system**

**3. VALIDATE the result, ADAPT it if necessary & INTEGRATE it with the system knowledge already acquired**

a. Scenarios

b. Knowledge reuse

c. Interview

d. Data Collection

**The following criteria are used for stakeholder analysis, except for**

a. Relevant position in the organization

b. Level of domain expertise

c. Create prototypes for system-to-be

d. Effective role in making decisions about the system-to-be

**Which is not an obstacle to effective knowledge acquisition?**

a. Distributed and conflicting knowledge sources

b. Stable conditions

c. Difficult access to sources

d. Tacit knowledge and hidden needs

**Which of the following is an elicitation technique that provides a concrete flavor of what the software will look like?**

a. Prototypes and mock-ups

b. Background study

c. Data collection

d. Card sorts and repertory grids

**Which is not a concept-driven acquisition technique?**

a. Interview

b. Repertory grids

c. Card sorts

d. Conceptual laddering

**Which is not a artifact-driven elicitation technique?**

a. Storyboards and scenarios for problem world exploration

b. Mock-ups and prototypes for early feedback

c. Knowledge reuse

d. Unstructured group sessions

**Which is not a artifact-driven elicitation technique?**

a. Background study

b. Data Collection

c. Group sessions

d. Questionnaires

**Which is not a stakeholder-driven elicitation technique?**

a. Interview

b. Group sessions

c. Observation and ethnographic studies

d. Stakeholder analysis

**The following are obstacles to effective knowledge acquisition, except for**

a. Distributed and conflicting knowledge sources

b. Difficult access to sources

c. Interacting with stakeholders

d. Obstacles to good communication

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can be helpful for eliciting non-functional requirements related to usability, performance, and costs.**

a. Questionnaires

b. Data Collection

c. Background study

d. Knowledge reuse

**Which of the following is not an objective of domain understanding and requirements elicitation stage?**

a. Understanding the system-as-is

b. Identify the problem and opportunities calling for q new system

c. Discover the expectations of stakeholders with respect to the new system

d. Explore alternative ways to develop the new system that could address those needs

e. Select the preferred proposal system

**\_\_\_\_\_\_\_\_ shows aspects related to software functionalities.**

a. A Software prototypes

b. A functional prototypes

c. A user interface prototypes

d. Screen mock-ups

**The target of \_\_\_\_\_\_\_\_ is a set of low-risks, conflict-free requirements and assumptions that stakeholders agree on.**

a. Domain Understanding and Elicitation

b. Requirements Evaluation

c. Requirements Specification

d. Requirements Validation

**Which of the following items is not a type of inconsistency of requirements?**

a. Terminology clash

b. Designation clash

c. Inconsistency management

d. Structure clash

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. These are statements that can not be satisfied when taken together; their logical conjunction evaluates to false in all circumstances.**

a. Weak conflict or divergence

b. Designation clash

c. Structure clash

d. Strong conflict

**The following sample statement is a \_\_\_\_\_\_\_\_ statement.**

**The staff's viewpoint in our library system might state, 'a borrower should return a borrowed book copy within two weeks'. A stakeholder having the borrower's viewpoint might state, 'a borrower should keep a borrowed book copy as long as he or she needs it'.**

a. Strong conflict

b. Weak conflict or divergence

c. Structure clash

d. Designation clash

**Risk management process contains the following stages, except for**

a. Risk identification

b. Risk assessment

c. Risk resolution

d. Risk control

**The goals of risk assessment is to assess likelihood of risks, \_\_\_\_\_\_\_\_\_, likelihood of consequences, to control high-priority risks**

a. risk severity

b. risk resolution

c. risk control

d. risk management

**Assume that risk (r) only cause one consequence (c). Give Likelihood (c) = 0.7, Severity (c) = 5, cost(cm) = 0.5. Exposure(r) =**

a. 1.15

b. 3.5

c. 2.5

d. 0.35

**The goals of \_\_\_\_\_\_\_ is to reduce high-exposure risks through countermeasures**

a. Risk control

b. Risk assessment

c. Risk management

d. Risk identification

**Which of the following items are not exploring risk countermeasures techniques?**

a. Using elicitation techniques

b. Reusing known countermeasures

c. Using risk reduction tactics

d. Using design methodologies

**Which of the following items is not a step in the process of risk management with DDP for RE?**

a. Elaborate the Impact matrix

b. Elaborate the Effectiveness matrix

c. Determine optimal balance risk reduction vs. countermeasure cost

d. Quantitative reasoning for evaluating options

**Give Evaluation Criteria (NFRs) of scheduling Meeting program to quantitative reasoning for evaluation options as below:**

**- Fast responds: (Significance weighting: 0.30; Option 1 score: 0.40)**

**- Realizable response: (Significance weighting: 0.50; Option 1 score: 0.80)**

**- Minimal inconvenience: (Significance weighting: 0.10; Option 1 score: 0.30)**

**Which of the following is a total score of option 1?**

a. 0.52

b. 0.55

c. 0.57

d. 0.5

**Which of the following items is a range of estimated score percentage of option (opt) on criterion (crit): Score (opt, crit) ?**

a. 0-->1

b. 0-->0.99

c. 0-->10

d. 0-->100

**Which of the following items is not a step of Value-cost prioritization process?**

a. Estimate relative contribution of each requirement to project's value

b. Estimate relative contribution of each requirement to project's cost

c. Plot relative contributions on value-cost diagram

d. Build comparison matrix

**ER diagram is made from three core constructs: entities, \_\_\_\_\_\_\_\_\_\_ and relationships.**

a. Classes

b. Methods

c. Objects

d. Attributes

**State machine diagram is made by two core constructs:**

a. States, Relationships

b. States, Associations

c. States, Transitions

d. States, Operations

**The data-activity duality principle requires actigram items to have some \_\_\_\_\_\_\_\_\_\_ in a datagram, and vice versa.**

a. Countermeasures

b. Counterparts

c. Opponents

d. Companions

**Actigrams (Datagrams) declare activities (data) by their input/output data (producing/consuming activities) and interconnect them through data (\_\_\_\_\_\_\_\_\_\_\_) dependency links.**

a. Action

b. Value

c. Data

d. Control

**In Figure 4.9, "DetermineSchedule - <<include>> - ResolveConflicts" means:**

a. ResolveConflicts is a 'sub-operation' of DetermineSchedule.

b. ResolveConflicts is an 'alternative-operation' of DetermineSchedule.

**In Figure 4.9, "DenyRequest - <<extend>> - AskConstraints" means:**

a. DenyRequest is a sub-operation of AskConstraints.

b. DenyRequest is an alternative operation of AskConstraints.

c. DenyRequest is an alternative operation of AskConstraints, when the condition named Unauthorized holds.

d. None of the others

**Figure 4.10 shows an Event Trace Diagram specifying a meeting scheduling scenario. The first event is meetingRequest, \_\_\_\_\_\_\_\_ by an Initiator instance and \_\_\_\_\_\_\_\_\_ by a Scheduler instance.**

a. controlled/monitored

b. monitored/controlled

c. requested/responded

d. responded/requested

**In state machine diagram, the event occurrence is a \_\_\_\_\_\_\_\_ condition for transition firing, whereas a guard is a \_\_\_\_\_\_\_\_ condition for firing.**

a. sufficient/necessary

b. necessary/sufficient

**A\_\_\_\_\_\_\_\_\_ is captured by a sequence of state transitions for the system items that the component control**

a. Behavior

b. State

c. SM state transition

d. SM trace

e. SM State

**Which of the following are differences of problem diagram comparing with context diagram? (Choose 3)**

a. A rectangle with double vertical stripe represent the machine to be built

b. A rectangle with a single vertical stripe represent the component to be designed

c. Shared phenomena are controlled/monitored by components

d. An interface can be declared separately the exclamation mark after a component name prefixing

**A\_\_\_\_\_\_\_ diagram can be further detailed by indicating explicitly which component controls a shared phenomena, which component constitutes the machine needs to be built, and which components are affected by which requirements.**

a. context

b. Frame

c. Problem

d. state machine

e. entity-relationship

**Which one of the following activities should not be done in the phase "Defect evaluation at review meetings" of "Requirements inspection & review process":**

a. The defects found by each inspector are collected and discussed by the meeting participants

b. The meeting participants keep only defects on which all agree

c. Each inspector reads the RD or part of it individually to look for defects.

d. The team documents the conclusions in an inspection report

**Requirements Inspection process uses \_\_\_\_\_\_\_\_\_\_ guidelines to make it more effective in finding defects.**

a. WHY-WHAT-WHO

b. WHY-WHAT-WHO-HOW

c. WHAT-WHO-WHEN-WHERE

d. None of the others

**The phase "Individual reviewing", inspectors reads the Requirement Document for defects. They can operate this phase in which of the following modes?**

a. Free mode, process-based mode, checklist-based mode

b. Free mode, guideline-based mode, checklist-based mode

c. Free mode, guideline-based mode, process-based mode

d. Free mode and checklist-based mode

**Because the requirements errors are the most expensive, numerous and persistent software errors, so "requirements inspection & review process" should be applied as soon as possible.**

a. TRUE

b. FALSE

**"Queries on a requirements database" technique for "Requirements quality assurance" work on parts of the Requirements Document that are specified in terms of the** \_\_\_\_\_\_\_\_\_\_.

a. Structured natural language

b. Unrestricted natural language

c. Diagrammatic notations

d. None of the others

**Which one of the following modes of individual reviewing rely on lists of specific issues to address while searching for defects?**

a. Checklist-based mode

b. Checklist-based and Process-based modes

c. Free mode

d. None of the others

**Domain-specific checklists specialize the defect-based ones to the specific constructs of the structured, semi-format or formal specification language used in the requirement document.**

a. TRUE

b. FALSE

**For a binary decision table with N entry conditions, there must be \_\_\_\_\_\_\_ columns for the table to list all possible combinations of conditions exhaustively.**

a. 2^N

b. 2xN

c. N^2

d. None of the others

**In requirements validation by specification animation, the \_\_\_\_\_\_\_ is an execution of the software model, and an animation is a visualization of the simulated model in its environment.**

a. Simulation

b. Scenarios

c. Validation

d. Animator

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ form an effective technique for quality assurance, it is the widest in scope and applicability.**

a. "Requirements inspection and reviews"

b. "Queries on a requirements database"

c. "Requirements validation by specification animation"

d. None of the others

**Which of the following questions are in the checklist used for verifying "Poor structuring" defect type (choose 3)?**

a. Is the structuring rule for organizing these RD sections apparent?

b. Does this RD item cover unrelated requirements?

c. Does this RD item mix requirements and assumptions together?

d. Would there be alternative sensible choices?

e. Does this statement entail a premature design choice?

**Which of the following questions are in the checklist used for verifying "Over specification" defect type (choose 2)?**

a. Is the structuring rule for organizing these RD sections apparent?

b. Does this RD item cover unrelated requirements?

c. Would there be alternative sensible choices?

d. Does this RD item mix requirements and assumptions together?

e. Does this statement entail a premature design choice?

**Which of the following questions are in the checklist used for verifying "Ambiguity" defect type (choose two)?**

a. Can this statement be interpreted differently in different relevant contexts?

b. Is the structuring rule for organizing these RD sections apparent?

c. Are there other statements using this term with different meaning?

d. Does this RD item cover unrelated requirements?

e. Does this RD item mix requirements and assumptions together?

**Which one of the following links is not a traceability type?**

a. Anticipation link

b. Use link

c. Revision link

d. Variant link

e. Derivation link

f. Dependency link

**Traceability relies on the existence of \_\_\_\_\_\_\_\_\_\_\_ between items that we can follow backwards, towards source items, and forwards, towards target items.**

a. Dependency links

b. Transitions

c. Associations

d. None of the others

**To document assumption and requirement changes, we may assign qualitative levels of \_\_\_\_\_\_\_\_ to the statements, or levels of \_\_\_\_\_\_\_\_ in the case of multiple variants.**

a. Stability / Commonality

b. Revisions / Variants

c. Derivations / Dependencies

d. None of the others

**In "Traceability management process", which one of the following phases is concerned with four issues: the link granularity, link semantic richness, link accuracy and link overhead?**

a. Define traceability policy

b. Establish traceability links

c. Exploit traceability links

d. Maintain traceability links

**Which one of the following activities should be done in "Change evaluation & prioritization" phase of "Change Control" process?**

a. The team in charge of the project handles all approved changes to produce a new system version.

b. The review board is responsible to assess the merits, feasibility and cost of the proposed changes in the change request. Some proposed changes are approved, others are rejected and others are deferred.

c. The team in charge of project maintains a wishlist of possible changes. At certain time intervals, the team consolidates the wishlist into a change request.

d. None of the others.

**Dependency is the most general type of traceability link that can be specialized into \_\_\_\_\_ and \_\_\_\_\_ links within a single version.**

a. Use / Derivation

b. Variant / Revision

c. Revision / Derivation

d. None of the others

**Traceability management process composes of 4 phases:**

**a) Exploit traceability links**

**b) Establish traceability links**

**c) Maintain traceability links**

**d) Define traceability policy**

**Which one is the appropriate order of these phases:**

a. a, b, c, d

b. b, a, c, d

c. d, b, a, c

d. d, c, a, b

**Traceability management refers to the process of establishing, recording, exploiting and maintaining traceability \_\_\_\_\_ in a traceability \_\_\_\_\_.**

a. Lines / Graph

b. Relationships / Graph

c. Connections / Graph

d. Links / Graph

**\_\_\_\_\_\_\_\_\_\_\_\_\_ requires us to identify likely changes, assess their likelihood and document them in the Requirement Document.**

a. Change anticipation

b. Change assessment

c. Change validation

d. None of the others

**In a Change Control process, the necessity, feasibility, benefits, impact and cost of the requested changes are evaluated by a \_\_\_\_\_\_\_\_\_\_**

a. Inspector

b. Review board

c. Stakeholder

d. None of the others

**Which of the following actions does the review board need to do when reviewing changes of requirements (Choose three)?**

a. Understand the context of the requested change.

b. Assess the benefits of proposed change.

c. Estimate the cost and feasibility of the changes

d. Maintains a wishlist of possible changes (identified by insiders or collected from outsiders)

e. Consolidates the wishlist into a change request

**Which of the following are activities to be done in "Change Consolidation" stage of change control process (choose three)?**

a. Baselining of the new version of the RD for sharing among project members until the next version is baselined

b. Prioritize the accepted changes.

c. Forward propagation of all RD changes downward to software lifecycle items along vertical links of traceability graph.

d. Updating of the traceability graph.

e. Detect potential conflicts among the proposed changes.

**Which of the following are activities to be done in "Change Evaluation and prioritization" stage of change control process (choose two)?**

a. Baselining of the new version of the RD for sharing among project members until the next version is baselined

b. Prioritize the accepted changes.

c. Forward propagation of all RD changes downward to software lifecycle items along vertical links of traceability graph.

d. Updating of the traceability graph.

e. Detect potential conflicts among the proposed changes.

**Unlike domain properties and \_\_\_\_\_\_\_\_, goals may be refined, negotiated, assigned as responsibilities to agents and transformed in case of conflict or overexposure to risks.**

a. assumptions

b. expectations

c. requirements

d. hypotheses

**Behavioral goals are used for building \_\_\_\_\_\_\_\_\_ specifications of the system.**

a. Operational

b. Non-functional

c. Critical

d. None of the others

**An expectation is a goal assigned to a single agent of the \_\_\_\_\_\_\_\_\_.**

a. problem world

b. environment

c. system-to-be

d. system-as-is

**Which one of the following statements is a "soft goal"?**

a. If a book is requested then within a week a copy of the book is borrowed by the requesting patron.

b. If a train is at a platform then within 5 minutes the train is at the next platform.

c. The meeting scheduler software should be easy to use by administrative staff.

d. If a meeting is requested then sooner-or-later the meeting takes place and is attended by all important invited participants.

**\_\_\_\_\_\_\_ are used as criteria for selecting system options among multiple alternatives.**

a. Maintain goals

b. Avoid goals

c. Achieve goals

d. Soft goals

**Goals are generally found by top-down \_\_\_\_\_\_\_\_ of higher-level concerns and by bottom-up \_\_\_\_\_\_ from lower-level material such as scenario examples and operational descriptions.**

a. Refinement / abstraction

b. Abstraction / refinement

c. Generalization / specialization

d. Specialization / generalization

**In the goal model, the finer-grained a goal is, the \_\_\_\_\_\_\_ are required to satisfy it.**

a. fewer requirements

b. better agents

c. more agents

d. fewer agents

**Goals provide a basic abstraction for addressing the \_\_\_\_\_ dimension of requirements engineering.**

a. WHY

b. WHO

c. WHAT

d. HOW

**Goals provide a precise \_\_\_\_\_\_\_\_ for requirements completeness and pertinence.**

a. Evidence

b. Criterion

c. Tool

d. Role

**A goal refinement graph show the refinement and contribution links among goals. \_\_\_\_\_\_\_\_ appear as leaf nodes in this graph.**

a. Soft goals

b. Domain properties

c. Requirements

d. Behavior goals

**Which of the following items are not non-functional goals (Choose two)?**

a. Information

b. Compliance

c. Safety

d. Security

e. Satisfaction

**\_\_\_\_\_\_\_\_\_\_\_ prescribe different types of protection of agent assets against unintended behaviors.**

a. Accuracy goals

b. Information goals

c. Security goals

d. Stimulus-response goals

**\_\_\_\_\_\_\_\_\_\_\_\_\_ refers to the use of goals for requirements elicitation, evaluation, negotiation, elaboration, structuring, documentation, analysis and evolution.**

a. Goal

b. Goal-oriented RE

c. Requirement Engineering

d. Requirement Management

**An AND-refinement states that the parent goal can be satisfied by satisfying \_\_\_ sub-goals in the refinement.**

a. one of

b. all

c. some of

**An AND-refinement of a goal G into sub-goals G1, G2, ..., Gn should be**

a. Complete, inconsistent, minimal

b. Complete, accuracy, coverage

c. Complete, consistent, minimal

d. None of others

**Which one of the following statements about the leaf nodes in goals refinement trees is false?**

a. They are nodes that need not be refined further.

b. They are nodes whose responsibility can be assigned to single software agents.

c. They are nodes whose responsibility can be assigned to single environment agents.

d. They can not be domain properties or hypotheses.

**The goal model captures \_\_\_\_\_\_ and\_\_\_\_\_\_\_**

a. responsibility links between goals and conceptual objects

b. obstruction links between goals and obstacles

c. reference links from goals to system agents

d. operationalization links between goals and system operations

e. coverage links between goals and scenarios

**To start building a goal model, we may obtain \_\_\_\_\_\_\_\_ goals. Once these goals are obtained, we may build refinement and abstraction paths in a goal diagram**

a. Behaviour

b. Soft

c. Critical

d. Preliminary

**The goals G1, G2, ..., Gn are divergent in a domain Dom if we can find a feasible boundary condition B under which the goals cannot satisfied the arguments**

a. {G1, G2, ..., Gn, B, Dom} |= true

b. {G1, G2, ..., Gn, B, Dom} |= false

c. {G1, G2, ..., Gn, B, Dom} |= G

d. {G1, G2, ..., Gn, B, Dom} |≠ G

**A goal model makes it possible to capture \_\_\_\_\_\_\_ alternative options**

a. only one kind of (Alternative goal refinements)

b. two kinds of (Alternative goal refinements, Alternative responsibility assignments)

c. three kinds of (Alternative goal refinements, Alternative goal contributions, Alternative responsibility assignments)

d. None of the others

**We can build refinement and abstraction paths in a goal diagram by recursively asking \_\_\_ and \_\_\_ questions about available goals, respectively**

a. WHY / HOW

b. WHY / WHAT

c. HOW / WHY

d. WHAT / WHY

**Peter is responsible for goals discovery in RE. He uses some words like "in order to, so as to, so that,.. etc." to search goals in documents. Which of the followings is a Heuristic rules that Peter is using?**

a. Analyze current objectives & problems in system-as-is

b. Search for goal-related keywords

c. Instantiate goal categories

d. By abstraction

e. By refinement

**Obstacle analysis is a \_\_\_\_\_\_ of risk analysis aimed at identifying, assessing and resolving the possibilities of breaking assertions in the system's goal mod**

a. assertion-based form

b. goal-based form

c. obstacle-based form

d. requirement-based form

**An obstacle is a pre-condition for \_\_\_\_\_\_ of some goal, hypothesis or questionable domain property used in the goal model.**

a. satisfaction

b. non-satisfaction

c. Weakness

d. Divergent

**Goals and obstacles are dual notions. Therefore, we can derive obstacle categories from \_\_\_\_\_.**

a. Goals

b. Goal model

c. Goal categories

d. Goal obstructions

**In obstacle diagram, leaf obstacles are connected to countermeasure goals through \_\_\_\_\_\_\_\_\_\_.**

a. Responsibility links

b. Realizability links

c. Feasibility links

d. Resolution links

**Goal obstruction propagates \_\_\_\_\_\_\_ along goal AND-refinement trees**

a. top-down

b. bottom-up

**not (if A then B) amounts to:**

a. not A and not B

b. A and not B

c. not A and B

d. not A or not B

**Like in any risk management process, obstacle analysis is an iteration of \_\_\_\_\_\_\_ cycles.**

a. Elicit - Evaluate - Control

b. Identify - Assess - Control

c. Plan - review - evaluate - consolidate

d. None of the others

**An AND-refinement of obstacle O into sub-obstacles O1, O2,..., On should meet the following conditions:**

**1) {O1, O2, ..., On, Dom} |≠ false complete AND-refinement**

**2) {O1, O2, ..., On, Dom} |= O consistent AND-refinement**

**3) {O1,..., O(j-1), O(j+1), ..., On, Dom} |≠ O minimal AND-refinement**

**Which pair of the arguments is wrong?**

a. 1 & 2

b. 1 & 3

c. 2 & 3

d. All of arguments are true

**Which one is the "domain completeness" condition for OR-refinement of obstacle O into alternative sub-obstacles Oi:**

a. {Oi, Dom} |≠ false.

b. {Oi, Dom} |= O

c. {not O1, not O2, ..., not On, Dom} |= not O

d. {Oi, Oj, Dom} |= false (i ≠ j)

**(A) / (B) should be.**

a. Not ReverseThrustEnabled / Not WheelsTurning

b. ReverseThrustEnabled And Not WheelsTurning / WheelsTurning And Not ReverseThrustEnabled

c. ReverseThrustEnabled IF WheelsTurning / WheelsTurning IF Not ReverseThrustEnabled

d. None of the others

**Obstacles completeness can show about \_\_\_\_\_\_ and\_\_\_\_\_\_\_ (Choose two)**

a. what we know about the domain and how adequate our knowledge is

b. existential property capturing unadmissible behavior (negative scenario)

c. obstacle analysis may help elicit and validate relevant domain properties

d. condition on system for violation of corresponding assertion

**Which conditions does a statement about an obstacle to an assertion need to meet?**

a. {not O1,..., not On, Dom } |= G

b. {O, Dom } |= not G

c. {O, Dom } |≠ false

d. O can be satisfied by some system behavior

**OR-refinement of obstacle O should be ...**

a. {subOi, Dom } |= O

b. {subOi, subOj, Dom } |= false

c. {subO1,..., subOj-1, subOj+1 , ..., subOn, Dom } |= O

d. {not subO1,..., not subOn, Dom } |= not O

e. {subOi, Dom } |≠ false

**An object model provides a \_\_\_\_\_\_\_\_\_ of the system-as-is and system-to-be.**

a. Intentional view

b. Functional view

c. structural view

d. behavioral view

**A/an \_\_\_\_\_\_\_\_\_ is a discrete set of instances of a domain-specific concept that are manipulated by the modelled system**

a. System state

b. State variable

c. Object class

d. Conceptual object

**The features shared by object instances include.**

a. common vocabularies, glossary of terms, object's attributes and definition

b. goals, agents, operations and behavior models

c. object's definition, type, individual attributes, associations, domain invariants

d. None of the others

**An entity is \_\_\_\_\_\_\_\_\_\_\_.**

a. An autonomous and active object

b. A conceptual object dependent on other objects that it links.

c. An instantaneous object

d. None of the others

**The association is also called under synonymous term \_\_\_\_\_\_\_\_\_\_**

a. 'relation'

b. 'relationship'

c. 'linked object'

d. none of the others

**Each linked object in an association plays specific \_\_\_\_\_ in the association**

a. Relation

b. Role

c. Link

d. none of the others

**The multiplicity on one side of an association specifies the minimum and maximum number of object instances on \_\_\_\_\_\_\_ that may be associated.**

a. the other side

b. this side

c. both sides

d. None of the others

**An attribute is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

a. An intrinsic feature of an object regardless of other objects in the model

b. A relevant feature of an object, including the association with other objects in the model

c. A quantitative feature of an object

d. none of the others

**A specialization link may be introduced in a model between an object SubOb and an object SuperOb if every current instance of \_\_\_\_\_ is a current instance of \_\_\_\_\_ as well.**

a. SuperOb / SubOb

b. SubOb / SuperOb

**In specialization, the object SubOb plays the role \_\_\_\_\_\_ whereas the object SuperOb plays the inverse role \_\_\_\_\_\_.**

a. Generalizes / Specializes

b. Specializes / Generalizes

c. IsA / SubClassOf

d. SubClassOf / IsA

**An\_\_\_\_\_\_ link may be introduced between an object Ob and objects PartOb1,... PartObn if every current instance of Ob is a tuple of current instances of PartOb1, ...., PartObn.**

a. aggregation

b. composition

c. association

d. combination

**\_\_\_\_\_\_\_ is a particular case of aggregation whether the composite object Ob and its parts PartObi appear and disappear together in the system.**

a. aggregation

b. composition

c. association

d. combination

**An agent model captures the \_\_\_\_-dimension of requirements engineering**

a. WHY

b. WHO

c. WHAT

d. HOW

**An agent is an \_\_\_\_\_\_ system component play a role in goal satisfaction.**

a. Active

b. Passive

c. Instantaneous

d. none of the others

**Which of the following statements about agent capabilities is wrong?**

a. An agent monitors an attribute of an object if its instances can get the value of this attribute from object instances

b. An agent monitors an association if its instances can control this association holds between object instances

c. An agent controls an attribute of an object if its instances can set values for this attribute on object instances

d. An agent controls an association if its instances can create and delete association instances

**A goal under the responsibility of an agent must be realizable by the agent in view of its \_\_\_\_\_\_\_\_.**

a. Responsibilities

b. Capabilities

c. Realizabilities

d. None of the others

**Agent capabilities are defined in terms of the system variables that the agent can \_\_\_\_\_ and \_\_\_\_\_**

a. Assign / evaluate

b. Specify / realize

c. Monitor / control

d. none of the others

**In figure 11.4, what is the name of the annotation attached to the link between the agent and the operation in the agent model?**

a. Responsibility instance declaration

b. Capability instance declaration

c. Performance instance declaration

d. none of the others

**Which one of the following statements is the definition of "capability instance declaration" (CID)?.**

a. It annotating a performance link in an agent diagram makes precise which agent instance is performing the operation on which input/output object instance

b. It annotating a monitoring or control link makes precise which agent instance is monitoring or controlling the attribute/association of which object instance

c. It annotating a responsibility link in an agent diagram makes it precise which agent instance is responsible for which goal instantiation to specific object instances

d. None of the others

**In the agent model, an agent ag1 is said to depend on another agent ag2 for a goal G under the responsibility of ag2, if \_\_\_'s failure to get G satisfied can result in \_\_\_'s failure to get one of its assigned goals satisfied**

a. ag1 / ag2

b. ag2 / ag1

**What is an agent-goal co-refinement process?**

a. A process in which an agent and its assigned goals are refined in parallel into finer-grained agents, sub-goals and responsibility assignments

b. A process in which agents and assigned goals are generalized in parallel into coarse-grained agents and abstract goals

c. Both of above statements are wrong

**In figure 11.6, "Train" and "TrainInfo" are classified as**

a. Agents

b. Events

c. Entities

d. Associations

**\_\_\_\_\_\_\_\_ is the requirement document item, which stating a problem world feature in a way that can not be precisely compared with alternative options, or can not be tested or verified in machine solution.**

a. Omission *(thiếu)*

b. Inadequacy *(sai)*

c. Immeasurability *(k đếm đc)*

d. Noise *(nhiễu)*

**\_\_\_\_\_\_\_, the system as it should be when the machine will be built and operated in it.**

a. system-exist

b. system-to-be

c. system-to-be-next

d. system-as-is

**The machine's software to be developed or modified is just one component of the system-to-be that refers to**

a. software-as-is

b. software-to-be

c. system-to-be-next

d. system-as-is

**Components pertaining to the machine's surrounding world will form**

a. Environment of system-to-be

b. Environment of system-as-is

c. Environment of software-as-is

d. Environment of software-to-be

**In a \_\_\_\_\_\_\_\_\_ project, a brand new software solution is built from scratch to address problems with the system-as-is and exploit new opportunities from technology evolution or market conditions.**

a. Greenfield

b. customer-driven

c. Brownfield

d. market-driven

**Requirements engineering is**

a. the processes involved in developing system design

b. the processes involved in developing system documents

c. the processes involved in developing and verifying system

d. the processes involved in developing system requirements

**\_\_\_\_\_\_\_\_\_\_\_\_refer to "the contextual reasons for a new version of a system must be made explicit in terms of objectives" to be satisfied by**

a. the WHAT dimension

b. the WHO dimension

c. the WHY dimension

d. the HOW dimension

**Which of the following is not a stage of requirement engineering process?**

a. Domain understanding and elicitation

b. Evaluation and Negotiation

c. Specification and documentation

d. Requirement Traceability

**\_\_\_\_\_\_\_ addresses the assignment of responsibilities for achieving the objectives, services, and constraints among the components of the system-to-be**

a. the WHAT dimension

b. the WHO dimension

c. the WHY dimension

d. the HOW dimension

**\_\_\_\_\_\_\_\_ Statements state properties about the system that hold regardless of how the system behaves. Such properties hold typically because of some natural law or physical constraint.**

a. Descriptive

b. Description

c. Prescriptive

d. Prescription

**The following statement is an example of \_\_\_\_ statement:**

**- The same book copy can not be borrowed by two different people at the same time.**

a. Prescriptive

b. Descriptive

c. Description

d. Prescription

**\_\_\_\_\_\_\_\_\_\_statements state desirable properties about the system that may hold or not depending on how system behaves**

a. Descriptive

b. Description

c. Prescriptive

d. Prescription

**\_\_\_\_\_\_\_\_\_\_is the requirement document item, which cannot be realistically implemented within assigned budget, schedule, or development platform.**

a. Omission

b. Inadequacy

c. Immeasurability

d. Unfeasibility

**A/An \_\_\_\_\_\_\_\_ designates an object instance to which the operation applies. The state of this instance affects the application of the operation.**

a. State variable

b. Input variable

c. Out variable

d. None of the others

**A particular application of the operation yields a state \_\_\_\_\_\_\_ from a state in InputState to a state in OutputState.**

a. transformation

b. exchange

c. transition

d. none of the others

**Domain pre- and post-conditions are prescriptive.**

a. True

b. False

**The specification of an operation therefore includes a set of prescriptive conditions on operation applications. These conditions are aimed at ensuring that \_\_\_\_\_\_.**

a. the operation is dependent on the goals

b. the goals underlying the operation are satisfied

c. the operation associates with the goals

d. None of the others

**Which one of the following statements about required condition is true?**

a. Required pre-condition captures an obligation.

b. Required trigger condition captures an additional effect.

c. Required post-condition captures a permission.

d. none of the others

**The operation is not applied if a trigger condition becomes true in a state where the operation's domain pre-condition is not true.**

a. True

b. False

**Which one of the following statements is false?**

a. An operation may operationalizes multiple goals.

b. A goal may be operationalized by multiple operations.

c. Multiple agents perform an operation.

d. An agent may perform multiple operations.

**An operationalization diagram is an annotated graph showing the system operations, their \_\_\_\_\_\_ to goals in the goal model and input/output links to objects in the object model.**

a. performance links

b. operationalization links

c. capability links

d. None of the others

**A use case diagram provides an outline view of an operation model by showing the operations that an agent performs together with \_\_\_\_\_\_\_\_ with other agents.**

a. interaction links.

b. responsibility links

c. operationalization links

d. None of the others

**In \_\_\_\_\_\_\_ scheme, the agent instance applies the operation when it is really obliged to do so; that is, when one of the operation's required trigger conditions becomes true.**

a. an eager behaviour

b. a lazy behaviour

**In scenario diagram, an interaction is a/an \_\_\_\_\_\_\_\_\_.**

a. Active object

b. Passive object

c. Instantaneous object

d. None of the others

**In positive scenario, the sequence of interactions illustrates a possible way of satisfying an obstacle to a goal.**

a. True

b. False

**External events: the agent associated with the State Machine does not controls.**

a. True

b. False

**In an SM diagram, a transition is labelled by \_\_\_\_\_ from a source state to a target state.**

a. an event

b. an action

c. an operation

d. None of the others

**Which one of the following statements about required condition is true? In a state machine diagram, a guard condition captures a \_\_\_\_\_\_\_ condition for state transition.**

a. necessary

b. sufficient

**The initial states of the instance correspond to the states where it disappears from the system.**

a. True

b. False

**For stepwise refinement of a state diagram, we decompose a state into sequential or parallel sub-states.**

a. true

b. false

**A scenario is a temporal sequence of interaction events among agent.**

a. True

b. False

**Which of the followings are not strengths of goal model?**

a. satisfaction arguments

b. concrete examples

c. expressive (functional, non-functional; alternative options)

d. acceptance test data

**Which of the followings are strengths of state machines model?**

a. expressive (functional, non-functional; alternative options)

b. visual abstraction of explicit behaviors of any agent instance in a class

c. acceptance test data

d. code generation

**Which of the following are semantic rules used to define sequential state decomposition?**

a. The instance modelled by the diagram is in the super-state if and only if it is in one (and only one) of the sequential sub-states

b. The instance modelled by the diagram is in the super-state if and only if it is in each of the concurrent sub-states

c. An incoming transition to the super-state is by default inherited by every sequential sub-states as an incoming transition to it.

**A meta-model is a conceptual model for the meta-level, the highest level, thus consisting of concepts, relationships, attributes and constraints defined in all levels (meta-, domain- and instance-level).**

a. True

b. False

**System model is made up of five views. Which one of the following view captured by goal model:**

a. Structural view

b. Functional view

c. Behavioural view

d. None of the others

**The instance level is made of concepts that are instances of meta-level abstractions.**

a. True

b. False

**Two meta-attributes are mandatory for any meta-concept whatever view it refers to:**

a. "Name" and "Category"

b. "Identifier" and "Name"

c. "Name" and "Def"

d. "Identifier" and "Issue"

**Which one of the following object is the root meta-concept:**

a. ObjectModel

b. OperationModel.

c. SystemModel.

d. None of the others.

**The name of elements defined in a package are \_\_\_\_\_\_\_\_\_\_.**

a. local to the package and its descendants.

b. public to all packages.

c. None of the others.

**To facilitate model configuration and evolution, we should specify \_\_\_\_\_\_\_\_\_ among packages.**

a. Generalization links.

b. Inheritance links.

c. Dependency links.

d. None of the others.

**All of the following statements about structural consistency of the goal and object models are correct, EXCEPT?**

a. Every conceptual item referred to in a goal specification in the goal model must appear as an attribute or object in the object model

b. Every goal in the goal model must concern at least one object in the object model

c. For every object in the object model, there must be at least one goal in the goal model concerning with it

d. Every goal in the goal model must be existent in the object model

**All of the following statements about structural consistency of the goal and behavior models are incorrect, EXCEPT?**

a. Every conceptual item referred to in a goal specification in the goal model must appear as an attribute or action in the behavior model

b. Every scenario in the behavior model must be covered by at least one goal in the goal model

c. For every SM state in the goal model, there must be at least one goal in the goal model refer to it

d. Every goal in the goal model must concern at least an action or an event in the behavior model

**Which is the definition of functional requirement?**

**Select one:**

a. A goal or task that specific classes of users must be able to perform with a system, or a desired product attribute

b. A restriction that is imposed on the choices available to the developer for the design and construction of a product

c. A description of a property or characteristic that a system must exhibit or a constraint that it must respect

d. A description of a behavior that a system will exhibit under specific conditions

e. A top-level requirement for a product that contains multiple subsystems, which could be all software or software and hardware

f. A policy, guideline, standard, or regulation that defines or constrains some aspect of the business. Not a software requirement in itself, but the origin of several types of software requirements

**Which is the definition of nonfunctional requirement?**

**Select one:**

a. A description of a behavior that a system will exhibit under specific conditions

b. A restriction that is imposed on the choices available to the developer for the design and construction of a product

c. A policy, guideline, standard, or regulation that defines or constrains some aspect of the business. Not a software requirement in itself, but the origin of several types of software requirements

d. A description of a property or characteristic that a system must exhibit or a constraint that it must respect

e. A goal or task that specific classes of users must be able to perform with a system, or a desired product attribute

f. A top-level requirement for a product that contains multiple subsystems, which could be all software or software and hardware

**requirements**

**Select one:**

a. elicitation phase

b. validation phase

c. specification phase

d. analysis phase

**Which one of the following is a functional requirement ?**

**Select one:**

a. Maintainability

b. Security

c. Robustness

d. Order products

e. Portability

**Which is one of the most important stakeholder from the following ?**

**Select one:**

a. Users of the software

b. Middle level stakeholder

c. Managers

d. Entry level personnel

**We need decision makers and decision rules to move project ahead including**

**Select one or more:**

a. approving a set of requirements

b. resolving conflicts

c. meeting between developers and end users

d. accepting or rejecting a proposed change

**How to reduce the gap between what the customer needs and what the developer builds?**

**Select one:**

a. developers should do what the customer needs

b. have ongoing conversations between developers and customers

c. developers should postpone the role of customer in project

d. developers need to catch up with the demands of customers

**In the elicitation process, which task(s) could be done?**

**Select one or more:**

a. Perform document analysis

b. Identify requirement origins

c. Adopt requirement document template

d. Reuse existing requirements

e. Examine problem reports

f. Create prototypes

**The business analyst could be**

**Select one or more:**

a. Requirements engineer

b. Requirement analyst

c. System developer

d. Application analyst

e. Systems analyst

f. Requirement manager

**Which is (are) not the roles of business analyst on Agile project?**

**Select one or more:**

a. Work with the rest of the team to determine the impact of changes on iteration contents and release plans

b. Consulting with engineering staff to evaluate software-hardware interfaces and develop specifications and performance requirements

c. Ensure that requirements documentation is at the right level: not too little and not too much

d. Help determine the best approach to document the backlog, including whether story cards or more formal tools are most appropriate

e. Preparing reports on programming project specifications, activities, or status

**Which are the roles of business analyst?**

**Select one or more:**

a. Analyze the needs of the project stakeholders

b. Validate the needs of the project stakeholders

c. Elicit the needs of the project stakeholders

d. Implement the needs of the project stakeholders

e. Document the needs of the project stakeholders

**Which is (are) not the taks of business analyst?**

**Select one or more:**

a. Manage requirements

b. Plan the requirements approach

c. Directing system testing and validation procedure

d. Define business requirements

e. Identify project stakeholders and user classes

f. Directing software programming and documentation development

**Business requirements issues must be resolved:**

**Select one:**

a. after the functional and nonfunctional requirements can be fully specified.

b. along the functional and nonfunctional requirements can be fully specified.

c. before the functional and nonfunctional requirements can be fully specified.

d. after the nonfunctional requirements can be fully specified.

**Why do the business requirements conflict?**

**Select one or more:**

a. Because they come from a wide range stakeholders

b. Because they are issued from end users

c. Because they are collected from multiple documents

d. Because they are collected from group of developers

**Which are the techniques to reprent the project scope**

**Select one or more:**

a. Context diagram

b. Ecosystem map

c. Feature tree

d. Use case diagram

e. ERD

f. Even list

**How to identify user classes?**

**Select one:**

a. Base on the jobs that various users will do with the system

b. Base on the responsibilies that various users will play with the system

c. Base on the tasks that various users will perform with the system

d. Base on the roles that various users will take with the system

**Business requirements might come from**

**Select one or more:**

a. marketing managers

b. end users

c. corporate executives

d. team members

e. product visionaries

f. funding sponsors

**How to resolve requirements disputes between individual users?**

**Select one:**

a. Product champion or product owner decide

b. Business objectives dictate direction

c. Favored user class gets preference

d. Segment with greatest impact on business success gets preference

**Regarding user pesonas, a persona is a \_\_\_\_**

**Select one:**

a. a characteristics of user class

b. a description of a hypothetical, generic person

c. a description of a group of users giving requirements

d. a description of characteristics person

**Identify class users could be based on their access privilege or security levels, the features and**

**Select one or more:**

a. Their personality traits

b. The tasks they perform during their business operations

c. Their native language

d. The platforms they will be using

e. The frequency with which they use the product

**The product champions is**

**Select one:**

a. a person supplying requirements

b. a person of our user community to provide the requirements

c. a few key members of user community to provide the requirements

d. a group members of our user community to provide the requirements

**In Agile project, a single representative of stakeholders is called**

**Select one:**

a. product supplier

b. product representative

c. product owner

d. product champion

**Resolving conflicting requirements are**

**Select one or more:**

a. determining who the decision makers will be for requirements issues

b. handling arbitrate questions of scope

c. finding the same voice of all class users

d. supporting the end users who could understanding their tasks

**In Agile project, the product owner and product champion schemes are \_\_\_\_\_\_\_**

**Select one:**

a. not mutually exclusive

b. mutually exclusive

c. not supported mutually

d. supported mutually

**Which is not an activity for a single requirements elicitation session?**

**Select one:**

a. Perform elicitation activities

b. Requirements Documentation

c. Prepare for elicitation

d. Follow up after elicitation

**When the BA prepare questions and straw man models in a single requirements elicitation?**

**Select one:**

a. document requirements

b. Prepare for elicitation

c. Follow up after elicitation

d. Perform elicitation activities

**Which is/are not the requirements elicitation techniques?**

**Select one or more:**

a. Workshops

b. Focus groups

c. Rational Unified Process(RUP)

d. Interviews

e. Questionaires

**Which is(are) the main purpose of use cases?**

**Select one:**

a. Exploring the requirements for batch processes, computationally intensive systems, business analytics, and data warehousing.

b. Exploring the requirements for embedded and other real-time systems

c. Provide a brief description of the reason for and outcome of system

d. Exploring the requirements for business applications, websites, kiosks, and systems that let a user control a piece of hardware

**Which is(are) true when we compare the purpose use case diagram and context diagram?**

**Select one or more:**

a. The use case diagram depicts the data and functions of project while context diagram only illustrates the flow of data.

b. The arrows in a context diagram indicate the flow of data, control signals, or physical materials across the system boundary

c. Both define the scope boundary between objects that lie outside the system and things inside the system

d. The arrows in a use case diagram simply indicate the connections between actors and use cases in which they participate; they do not represent a flow of any kind

**"Provide a description of the user actions and corresponding system responses that will take place during execution of the use case under normal, expected conditions". This activity belong the \_\_\_\_\_\_\_\_\_\_ section in use case document.**

**Select one:**

a. Normal Flow

b. Postconditions

c. Exceptions

d. Alternative Flows