Examination questions - part 1

Group G

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Question 1

Proposition:
E/R diagrams are used to describe the data model for the product to be developed and they provide a technical overview of the data relationships in the project.

Reason:

It can be difficult for customers to validate the diagram since it's hard to really understand the consequences of the diagram in the domain.

Correct answer: A

Motivation:

The proposition is true since entity-relationship diagrams are used for data modeling. The reason is true since customers are not used to translating abstract diagrams into concrete product properties.

Reference: Lau:2 p44,54

Learning goals: 1,10,14,15

Question 2

Proposition:
Elicitation by observation of user's activity is a time efficient way of documenting current domain workflow and potential hazards.

Reason:

Observation of user's day to day activities will reveal his or her actual behaviour, even if it's not what the user consciously believes is the most proper workflow.

Correct answer: D

Motivation:

The proposition is false because observation may omit infrequent events and hazards that didn't occur during the observation period. The reason is true because some customers may have difficulties describing their behaviour why watching them actually work may be a better choice.

Reference: Lau:8 p340, 341

Learning goals: 1,10,14,15

Question 3

Proposition:
Task descriptions are used for describing user tasks in a structured way and are easy to validate and verify.

Reason:
Since task descriptions describe full tasks and not functional nor quality requirements they need to be rewriten before they can become requirements.

Correct answer: C

Motivation:
The proposition is true since task descriptions are easy for the customer to read and they can be used more or less directly for testing. The reason is false since task descriptions can be used as requirements by stating that the product should include the tasks described.

Reference: Lau:3 p92

Learning goals: 1,7,11,12,14

Question 4

Proposition:
Time and material based development is a good method of making sure the project stays in control and on budget.

Reason:
Since the development is done on an iterative basis, it is easy to save and out of control project before the costs skyrockets

Correct answer: E

Motivation:
The proposition is false since the project is by definition being developed on a flexible budget and/or schedule. The reason is also false since such project may end up not delivering anything while the costs explodes and instead leaving the stakeholders arguing about what has been agreed upon and who's fault it is.

Reference: Lau: 1 p p8

Learning goals: 1,15

Question 5

Proposition:
Tasks with data is a format that makes it easier to design complex user interfaces by recording the needed visible data together with the task to be completed.

Reason:
Tasks with data divides the work between the user and the system and can contain certain elements of premature design.

Correct answer: A

Motivation:
The proposition is true since tasks with data contains tasks with the needed data as well as it was conceived by Soren Lauesen to create a systematic way of designing complex user interfaces. The reason is true since sometimes the table contains data in such way that it predicts design by saying what the system should show the user.

Reference: Lau:3 p134-136

Learning goals: 1,5,18

Question 6

Proposition:
Prioritization during Market-driven RE is considered less challenging than during contract development RE

Reason:
This is due to the statistical data provided by the alfa/beta model used in Market-driven RE

Correct answer: E

Motivation:
The proposition is false since this on the contrary is one of the major challenges of MDRE, coping with sometimes enormous amounts of information. This puts strict requirements on organizing the information in an efficient way enough to provide a good basis for decision-making. The reason is also false since the alfa/beta model rather used for evaluating process quality than for prioritization.

Reference: MDRE 13.3.1

Learning goals: 1,6

Question 7

Proposition:
As a requirements engineer, one should refrain from writing data requirements.

Reason:
A requirements engineer should strive not to design the system.

Correct answer: D

Motivation:
Proposition is false since there is almost a one-to-one relationship between information found in surrounding domain and data stored in system. Therefore specifying data has very little to do with designing the system. The reason is correct.

Reference: Lau:1 p12-13

Learning goals: 1,3,4,5

Question 8

Proposition:
Elicitation by questionnaires give clear results.

Reason:
The larger number of participants give usable statistics to use as evidence for earlier assumptions.

Correct answer: D

Motivation:
Proposition is false. Questions and answers are seldom specific enough not to be misinterpreted. Reason is true.

Reference: Lau: 8 p342

Learning goals: 10

Question 9

Proposition:
Judgmental errors resulting in inconsistency is a potential source of problem during the Analytic Hierarchy Process, a cost-value approach process for comparing requirements.

Reason:

This is due to the fact that there is no step in the process that deals with reducing the inconsistency
Correct answer: C

Motivation:

The proposition is true since the comparisons are evaluated pairwise which could result in inconsistency. The reason is however false, since calculation of the consistency ration is done in the end, making it possible to go back and correct judgmental errors.
Reference: PRIO2: p68-70

Learning goals: 8

Question 10

Proposition:
To ensure creativity in evaluating advantages and disadvantages for stakeholders regarding new concepts and ideas for a system, constraint removal is a suitable technique
Reason:

Constrain removal gives stakeholders the combined view of different available solutions
Correct answer: C

Motivation:

The proposition is a key finding in CREA for constraint removal and therefore true. The Reason however is false since constraint removal rather considers possible new solutions, "out-of-the-box-thinking", around the concerned removed constraint.
Reference: CREA: 4.2

Learning goals: 1 , 15