

ETS170
Group B
Exam problem 2

Fråga 1. Prioritisation of Usability Factors

Påstående: Different type of systems requires different prioritisation of the Usability Factors. A Spotify website for attracting new international customers may need higher Ease of Learning than a navigation system for aircrafts, that should focus more on understandability and task efficiency.

Anledning: As a developer, it can sometimes feel hard, or even impossible, to design a system that scores high on all of the five usability factors. One purpose of the usability requirement is to specify the necessary level for each factor.

Rätt svar: **A**, both the proposition and the reason are correct statements, and the reason explains the proposition in a correct way.

Motivering: As the example describes, a new system for attracting customers should focus on Ease of Learning, since that emphasises on how easy the system is to use for various groups of users. The second example, about the navigation aircraft system, clearly has a smaller and very specific group of frequent users, and should therefore focus on understandability and task efficiency. Understandability refers to how easy it is to understand what the system does, which seems to be a critical factor in flying an aircraft.

Litteratur hänvisning: Lau 6.6.5, page 256

Inlärningsmål: 1.1.2, 1.2.1, 1.2.5, and 1.3.1.

Huvudansvarig: Malin Andersson

Fråga 2. Integration

Påstående: To integrate a new product with a customer's existing tailor-made system is less complicated for a supplier than to integrate the product with a commercial system.

Anledning: Obtaining data about commercial systems is a demanding process.

Rätt svar: **E**, both the proposition and the reason are false statements.

Motivering: The supplier has to be given broad information about the custom made system from the customer. Otherwise he will find it very difficult to perform the task since he can't gain the information elsewhere. In the case of integration with an commercial system, the supplier can, single-handed, easily find data about the system (supposing that he didn't already knew).

Litteraturhänvisning: Lau 5.4, page 209

Inlärningsmål: 1.1.1 and 1.1.3

Huvudansvarig: Elise Ellerstedt

Fråga 3. Analytical Hierarchy Process

Proposition: Analytical Hierarchy Process(AHP) is a technique used to order the requirements and decide which priority they should have.

Reason: The technique divides the requirements hierarchically to find the dependencies between the requirements. And the dependencies will help with deciding the priorities.

Correct Answer: C, proposition is true, but the reason is a false statement.

Motivation: The proposition is true, the Analytical Hierarchy Process helps a project with the ordering and prioritisation of requirements. The reason is false, the technique does not depend on the dependencies of the requirements, instead it compares all possible pairs of hierarchically classified requirements.

Reference: PRIO, page 75-76

Learning objective: 1.1.3, 1.1.5, 1.2.5, 1.3.1 and 1.3.5

Responsible: Rebecka Alves-Martins

Problem 4: Alpha/Beta

Proposition: A possible way to reduce the risk of overloading when using the alpha/beta technique is to perform screening activities.

Reason: The screening activity will find and discard the requirements that is of low quality, thus reducing the overload.

Correct Answer: C, proposition is true, but the reason is false.

Motivation: The proposition is true, performing a screening activity might decrease the overload of the requirements. But the reason is false. The screenings main goal is not to find qualities of low quality, instead it will assess each requirements value/cost ratio and discard those with too low ratio.

Reference: MDRE 13.3 – 13.3.2

Learning objective: 1.1.3, 1.1.6, 1.2.1, 1.3.1, 1.3.3 and 1.3.5

Responsible: Henrik Gyllensvärd

Fråga 5. Inspections

Påstående: Inspections is an important part in a software development process, even though it doesn't generate gains measured in money for the specific project, it has long term effects for the company as a whole.

Anledning: Noticeable effects is improved teamwork, efficient dissemination of knowledge in the company, and faster more efficient introduction of new employees in the company and its standards, policies and culture.

Rätt svar: **D** The proposition is false, but the reason is a true statement.

Motivering: Inspections do indeed introduce a lot of positive effects in the long-term, but does also in fact generate positive aspects for the specific project measured in money too, since defects can be found before testing, whenever it is about code or different documentations.

Litteraturhänvisning: INSP page 67-68

Inlärningsmål: 1.2.1, 1.2.4, 1.3.5, 2.7

Huvudansvarig: Mahmoud Nasser

Fråga 6. Visualization of Interdependencies

Påstående: When planning a release of some sort it is very beneficial to make judgements while considering the requirements' interdependencies visualized through a graph.

Anledning: This technique provides a helicopter overview of the requirements. Thus one can identify clusters of requirements with interdependencies or singular requirements and use this as a tool for making judgement. Singular requirements don't depend on other requirements.

Rätt svar: **A**, both the proposition and the reason are correct statements, and the reason explains the proposition in a correct way.

Motivering: Visualization of interdependencies has been proven very useful when it comes to reason and partition a set of requirements. With a glance one could quickly decide whether a requirement or a set of requirements should be included in the release or not.

Litteraturhänvisning: INTDEP

Inlärningsmål: 1.3.1, 1.3.4

Huvudansvarig: Christian Frid