CITS5501 Short Exercises Assessment Rubric

2022-04-11

Version: 0.1.0

For the week 7 exercise, you are given a short scenario to analyse and some questions to answer. The aim of the exercise is for you to demonstrate that you can:

- distinguish the relevant from irrelevant facts in the scenario
- identify what topics we have covered which apply in this case, and how
- come up with a clear recommendation or answer
- justify that recommendation (logically, or via evidence covered in lectures etc.)

"Identifying relevant facts/topics" and "justifying answers appropriately" are the key things we are looking for in answers.

The two questions in the exercise are marked out of 10 and out of 5, respectively.

In each case

- 30% of the marks (4 out of 10, or 1.5 out of 5) are awarded for correctly identifying the relevant facts or topics or principles to apply, and not discussing irrelevant facts/topics/principles.
- 50% of the marks (5 out of 10, or 2.5 out of 5) are awarded for appropriately justifying your answers.
- 20% of the marks (2 out of 10, or 1 out of 5) are awarded for conciseness, clarity and legibility of the answer.

Note that even if a "correct" answer exists and is given, if appropriate justification and/or reasoning is not given, very few marks will be awarded.

Some guidance as to how the "relevance" and "justification" components are assessed is given in the following table. A *proficient* answer will be awarded 70–100% of the marks for that component; a *satisfactory* answer will be awarded 50–69% of the mark for that component; and a *not yet satisfactory* answer will be awarded 0–49% of the mark for that component.

Demonstrated level	Identifying relevant facts/topics	Justifying answers
Proficient	All (or nearly all) relevant facts/topics identified, with at most minor omissions/errors	Answers are justified appropriately, with nuanced reasons given for all answers.
Satisfactory	Some relevant facts and topics identified but some major omissions/one-sided arguments	Some attempt at justification but major omissions or errors e.g. fails to justify major points or identify key assumptions
Not yet satisfactory	Little or no evidence of ability to identify relevant facts/topics	Little or no evidence of ability to justify answers

Examples

As an example problem, consider the following scenario:

> You and a colleague are reviewing a unit test for the address-book application you are working on.
>
> The unit test currently:
>
> - creates an in-memory database of people and their contact details
> - calls an `addPerson()` method, which takes as argument the full name of a person to be added to the address-book
> - checks the database to ensure the new person was correctly added.
>
> Your colleague says this test follows best practices for unit tests, and recommends it be kept in the test suite. Do you agree or not? Briefly explain, justifying your answer.

A sample proficient answer:

> My colleague is incorrect – this test does not follow best practice for unit tests. The reason is that it as part of its setup, it creates an in-memory database; in general, *unit* tests should not depend on other components, but should rely on *mock* objects to mimic their behaviour, if needed. That is what should be done here. Reasons for this are that:
>
> - if the test does not pass, it may not be clear whether the error is in the code being tested, or the database. Using mocks helps isolate the problem.
> - unit tests should run quickly, and creating and populating a database – even an in-memory one – is likely to be a slow operation.

This answer identifies relevant information (namely, best practices for unit tests), clearly states a conclusion (the colleague is incorrect), and justifies the conclusion (based on properties we want unit tests to have).

A sample not yet satisfactory answer:

> My colleague is incorrect – this test does not follow best practice for unit
> tests.

This answer would be awarded very few marks.

Although it correctly states that the test does not follow best practices, it does not justify this by reference to relevant principles and concepts covered in the unit. It would likely be awarded zero marks for the "relevance" and "justification" components.