

INFO5992 Introduction to IT Innovations

Quiz Summary

Question 1 (maximum 450 words) (4 marks) week03 P17

*In our Lecture, we learnt that “Diffusion is the process in which (1) **an innovation** is (2) **communicated through certain channels** (3) **over time** among (4) **the members** of a (5) **social system**.” (Rogers, 1995)*

*Point (3) ‘over time’ refers to the rate of adoption of an innovation. List and explain two **Technology Attributes of Innovations** that determine the rate of adoption.*

Comment: Many students correctly stated the two attributes (there were 7 attributes to choose from). Some students but did not (i) give examples and state why the attributes could affect a given example; and (ii) lacked detailed explanation of what the attributes means.

This is a simple question which tests if you studied the material. You should always aim to get full marks in such questions.

Question 2 (maximum 450 words) (10 marks)

Utterback and Abernathy introduced the concept of “design dominance” in an industry.

- a. Explain the concept of “design dominance”.*
- b. Why is ‘architecture’ an important criteria for dominant design?*
- c. Give an example of a recent IT-related architecture that has become a dominant design for an industry.*
- d. Identify factors that led to that architecture becoming dominant over other possible architectures and explain how each of those factors contributed to this dominance.*

Comments: It was good to see that most students understood the concept of ‘design dominance’ which is what the ‘industry settles on’. Architecture part was not as well answered – to get full marks, you had to show an understanding of the architecture and explain the ideas of the dominant design.

The architecture is important because it enables the industry to more easily and readily support and adopt. This often requires the architecture to be open and not controlled by a single company that created it.

The use of an example means that you refer the concept to the example. If I am not able to clearly correlate your example to the concept, you will lose marks. Some students gave wrong examples.

Question 3 (maximum 300 words) (6 marks)

Marc Andreessen, co-developer of the first widely used web browser and successful technology investor, wrote in 2011 “Software is eating the world”.

- a. What did he mean by this?*

b. Now, in 2016, to what extent is this still true? Explain with at least one example.

Comments: This is another question where it is easy to get good marks. It tests your knowledge if you studied your learning materials. Most students did well here, by correctly giving the right explanation – that software does not only take over many simple tasks but that it also often solves more complex tasks and advances (or enhances) the existing conventional/traditional approaches.

When asked about your opinion, try to answer with evidence and with concepts learned in the class or from your personal experience. Examples are great but need state why they are relevant. Some student simply said ‘company x’ which is not enough.

Question 4 (maximum 300 words) (10 marks)

a. Explain Christensen’s concept of “The Innovator’s Dilemma” and explain why this is a dilemma (i.e. a situation requiring a difficult choice between undesirable alternatives) for innovators. [4 marks]

b. Explain how companies can deal with this dilemma. [2 marks]

c. Give an IT-related example of a situation where a real company has had to deal with this dilemma, explaining the situation and what the company did to deal with it. [4 marks]

Comments: This question was the most difficult one and it appears that not all the students had the time to attempt it. In the final exam, make sure that you allocate times more appropriately so that you can try all questions, especially since every question has easy parts.

Also, the question asked how to deal with the dilemma, which was not always answered. This was the most common problem encountered.

a. Many students failed to demonstrate that they understood the concept of ‘innovator’s dilemma’, for example, some answers were not clear on how the company will deal with the dilemma.

b. Some students stated that ‘survey’ can be used to solve the dilemma but didn’t explain what type or how the survey is used. Needs to state that survey could be used for market research / market activity as well as R&D, for example.

c. Usually the example used was Kodak and Nokia, which are good examples, as discussed in the class. However, these examples did not specifically identify where and what the dilemma was in the example.