Summer Examinations 2015

CSY303215N

Module Title: Systems Development Approaches
Level: Six
Time Allowed: Two hours

Instructions to students:
- Enter your student number **not** your name on all answer books.
- Answer **two** out of **three** questions.
- Begin each question in a separate answer book; label each answer book clearly with the number of the question you are answering.
- Students are permitted to take **two** sheets of A4 paper (**four** sides of notes) into the examination room. Notes can be hand written or typed (not less than 12pt). All notes should be attached to the answer book at the end of the examination.

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Answer **two** out of **three** questions.

**Question 1**

Eliciting good and useful user requirements is an essential element of a good information systems design. Yet there are many challenges and difficulties with identifying user requirements and needs and it is often characterized as a mystery.

a. Describe the different types of knowledge that needs to be acquired for requirements acquisition and give examples of each.  

   **(25 marks)**

b. Using different requirement elicitation techniques is very necessary to ensure the system that is finally implemented is what the users want.

   Critically evaluate the five techniques listed, clearly stating the preconditions to the use of these techniques and the strengths and weaknesses of each, and the type of knowledge they elicit.

   i. Unstructured Interviews  
   ii. Card Sorting  
   iii. Facilitated Workshops  
   iv. Ethnographic studies  
   v. Prototyping  

   **(25 marks)**

   Your answers must show evidence of reading on the subject.

**Total: 50 marks**
Question 2

Many projects fail due to many different reasons (i.e. Projects do not meet business needs; Projects do not meet financial objectives; People issues; Poor management; Poor communication; Not working effectively together....).

Agile methods try to address many of these issues with project failure.

a. Discuss how the underlying principles of Agile help to address the problems mentioned above. Clearly state which problems they address.  
   (27 marks)

b. The Agile lifecycle comprises of 5 phases:
   Feasibility Study
   Business Study
   Functional Model Iteration
   Design and Build Iteration
   Implementation

   These phases can be tailored, depending on the business and technical constraints. Each phase has a minimum set of products defined as outputs and pre-conditions defined for entry into each phase.

   Explain what is carried out during these phases, clearly stating which phases can happen concurrently.  
   (23 marks)

Total: 50 marks
Question 3

‘Firms that have tried CASE tools and failed often criticize the tools on several dimensions, including their expense, processing platforms that require above average power and capacity, and tools that are complex both in terms of use and of support.’

Senn and Wynekoop

The successful implementation of CASE is not only a technical issue but also a people issue. It is essential that information systems managers realise that their staff often have a strong resistance to change, especially when it comes to learning a new tool.

Critically discuss the problems and advantages of using CASE in a development environment.

Your discussion should include the following issues:

- Categories of CASE tools
- Critical Success Factors required for CASE adoption
- The role of CASE in the evolution of development approaches

Your answers must show evidence of reading on the subject.

(50 marks)