

Tutorial Letter 201/1/2020

Advanced Systems Development (Information Systems) INF3705

Semester 1

ASSIGNMENT 01

School of Computing

IMPORTANT INFORMATION:

Please activate your *myUnisa* and *myLife* email addresses and ensure you have regular access to the *myUnisa* module site as well as your group site.

Semester 1: Assignment 01**[For first semester students only]****Total: 100**

Question 1 [20 marks]

Critically discuss the benefits of software re-use and explain the problem associated with this approach?

Question 2 [10 marks]

Suggest why it is important to make a distinction between developing the user requirements and developing system requirements in the requirement engineering process?

Question 3 [10 marks]

Briefly describe the three (3) types of software maintenance and explain why it is sometimes difficult to distinguish between them?

Question 4 [12 marks]

Apart from challenges of heterogeneity, social changes, trust and security, identify six (6) other problems and challenges that software engineering is likely to face in the 21st century?

Question 5 [08 marks]

Explain why design conflict might arise when designing an architecture for which both availability and security requirements are the most important non-functional requirement?

Question 6 [12 marks]

Explain in details what is release testing and what is user testing, explain the difference between release testing and user testing?

Question 7 [8 marks]

List and explain the key stages in the process of system construction by composition?

Question 8 [20 marks]

8.1 List and explain 4 levels of software reuse [8 marks]

8.2 List and explain 6 points suggested by (Bayersdorfer 2007) for companies managing projects that use open source [12 marks]