

University of Eswatini

Department of Computer Science

Supplementary/Resit Examination

2018/19

Title of Paper: Software Engineering II

Course Number: CS452/CSC491

Time Allowed: Three (3) hours

*Instructions: Answer **ALL** questions*

You are not allowed to open this paper until you have been told to do so by the invigilator.

Question 1

- a) Discuss the Unified Modeling Language (UML). State why it is important. [10]
- b) Under UML there are a number of modeling diagrams, discuss (in detail) any two (2) of these diagrams giving examples where necessary. [15]

Question 2

- a) A software testing process can produce a number of artifacts. Name and discuss any seven (7) of these artifacts. [14]
- b) Describe the testing cycle when using the Waterfall Development Model. [11]

Question 3

Discuss the contribution of Object-Oriented software development in the following aspects of software development.

- a) Managing the software development process. [8 marks]
- b) Software maintenance. [8 marks]
- c) Improving the quality of the final software system. [9 marks]

Question 4

- a) State and discuss any form of coupling that is moderately desirable. [5]
- b) State and discuss any form of cohesion whose desirability is quite high. [4]
- c) Discuss the distinction between activation control coupling and coordination control coupling. [4]
- d) When are modules said to have content coupling? [4]
- e) Lack of compatibility is said to be one of the main causes of software failure. Discuss:
 - i. Software compatibility. [4]

ii. Causes of incompatibility. [4]

End!!!