



NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi, Abuja
Faculty of Science and Technology
3 Credit Unit
Course code: CIT 703
CIT 703 - Information Technology and Software Development

Instruction: Answer Question 1 and any other four

- 1a. List out the five processes a software user will follow to procure a software. (6 marks)
- b. Define the following terms:(4 marks)
 - i. software lifecycle model?
 - ii. Software Process Model?
- c. Give the full meaning of UML and define it? (4 marks)
- d. Define the following terms (8 marks)
 - i. Database model
 - ii. Database management system
 - iii. Data flow diagram
 - iv. Entity-Relationship Model.
- 2a. What do you understand by the term software maintenance? (3 marks)
- b. Differentiate between Module testing and Integration testing? (6 marks)
- c. What is project Planning? (3 marks)
- 3a. List any 5 activities in the classic software lifecycle model and describe each mentioned?(5 marks)
- b. Differentiate between prescriptive model and descriptive model? (5 marks)
- c. Define the following Concepts (2 marks)
 - i. Joint Application Development(JAD).
 - ii. Rapid Prototyping.

- 4a. Identify and explain 5 goals of a software process. (5 marks)
- b. List four dimensions of quality and their categories according to McCall's software quality factors. (4marks)
- c. Explain software process model? (3 marks)
- 5a. List three parts of the UML 2.x specification.(3 marks)
- b. List and explain the deficiencies of UML.(6 marks)
- c. List and describe any 3 types of structural diagrams. (3 marks)
- 6a. List 5 database models and describe one(1) (6 marks)
- b. List and explain three components of Database Management System (3marks)
- c. List 3 features of Database Management Systems. (3 marks)
- 7a. What is a data flow diagram? (3 marks)
- b. With the aid of a diagram describe each of Yourdon's DFD notations.(3 marks)
- c. Outline three advantages of using a Data Flow Diagram. (6 marks)