



**NATIONAL OPEN UNIVERSITY OF NIGERIA,  
PLOT 91, CADASTRAL ZONE, UNIVERSITY VILLAGE, JABI – ABUJA  
FACULTY OF SCIENCES  
DEPARTMENT OF SCIENCE  
2024 1 EXAMINATION**

**Course Code: CIT 703**

**Course Title: Information Technology and Software Development**

**Time Allowed: 2½ hours**

**Credit: 3 Units**

**Instruction: Attempt four (4) questions. Question one is compulsory and any other three (3) questions.**

**Question One**

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|--|----------------|
| 1a. Differentiate between executive module test and executive integration test       | <b>3marks</b>  |
| 1b. Outlines five (5) characteristics of evolution of large software systems         | <b>5marks</b>  |
| 1c. Describe Software Automation   | <b>3marks.</b> |
| 1d. State the five (5) <b>FURPS+</b> model for Categories of Requirement Engineering | <b>5marks</b>  |
| 1e. Outlines five (5) factors in Requirements Engineering                            | <b>5marks</b>  |
| 1f. List four (4) UML behavioral diagrams  | <b>4marks</b>  |

**Question Two**

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|---|----------------|
| 2a. Outlines five (5) some version or subset activities of a classic software life cycle models | <b>5marks.</b> |
| 2b. What is a software process model?   | <b>5marks</b>  |
| 2c. State five (5) types of Cohesion in Software Engineering                                    | <b>5marks.</b> |
| 2d. Who is a software project manager? <b>2 marks.</b>  |                |

**Question Three**

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|---|-----------------|
| 3a. List and explain five (5) reasons why we need software engineering      | <b>5 marks</b>  |
| 3b. Outlines five (5) Garvin dimensions of quality in software development  | <b>5 marks.</b> |
| 3c. State and explain five properties of Software Requirement Specification | <b>5 marks.</b> |

**Question Four**

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|---|-----------------|
| 4a. What is a software life cycle model?  | <b>5 marks.</b> |
| 4b. With the aid of diagram using Waterfall Model briefly discuss the Software Development Activities | <b>10 marks</b> |

**Question Five**

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|--|----------------|
| 5a. Describe the term software maintenance                   | <b>4 marks</b> |
| 5b. State and explain four (4) types of software maintenance | <b>8 marks</b> |
| 5c. Who is a system analyst?                                 | <b>3 marks</b> |

**Question Six**

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|---|-----------------|
| 6a. Describe software process model   | <b>2 marks.</b> |
| 6b. Outlines (4) fundamental activities that are common to all software processes | <b>8 marks</b>  |
| 6c. Identify five (5) commonly used software process models                       | <b>5 marks.</b> |