



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-ABUJA
FACULTY OF SCIENCES
DEPARTMENT OF COMPUTER SCIENCE

2021_1 EXAMINATIONS

COURSE CODE : CIT 831
COURSE TITLE : Software Engineering Methodologies
CREDIT UNIT : 3
TIME ALLOWED : 2.5 HOURS
INSTRUCTION : Answer Questions 1 (One) and Any Other Four (4)

- 1a) Briefly summarize the problems of Evolutionary Development (3 marks)
- b.) What characteristics should a Quality Software products possess (3 marks)
- c) Explain the following terms as associated with CASE (3marks)
 - i) Functional perspective
 - ii) Process perspective
 - iii) Integration perspective
- d) Write Short notes on the following terms:
 - i) Sub-System ii) Module iii) Modular Decomposition Models (6 marks)
- e) Outline six major parts of a requirement document. (3 marks)
- f) Describe any four data model types (4marks)

- 2a. What are the shortcomings of Prototyping? (6 marks)
- 2b.) What type of systems is Evolutionary Development method suitable for? (3marks)
- 2c.) Arrange the following in software development activities in their correct order:
 - (i) Validation (ii) Evolution (iii) Development (iv) Specification? (3 marks)

- 3a) Briefly describe four generic activities involved in evolutionary process of a software product (6 marks)
- b.) Write short notes on the following terms:
 - i) Software Process (2 marks)
 - ii) Software Process Model (2 marks)
 - iii) Requirement engineering (2 marks)

- 4a) Explain the various specification techniques? (*4 marks*)
- b) Outline the features of a quality Software (*3 marks*)
- c) What is software engineering methodology? (*2marks*)
- d) With any one example, Describe the types of software products available (*3marks*)

- 5a) What is Requirement Validation? Explain why Requirement validation is necessary in Software engineering process (*4marks*)
- 5b)** Explain the necessary steps you would follow while building a prototype of Students' Results System? (*6 marks*)
- 5c) Enumerate the Systematic ways of Algebraic Specification (*2 marks*)

- 6a)** What are the composition of Architectural design decisions? State the common Architectural design decisions across all software engineering processes. (*7 marks*)
- 6b)** Describe the requirement validation checks you know? (*5 marks*)