



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-ABUJA
FACULTY OF COMPUTING
DEPARTMENT OF COMPUTER SCIENCE
2025_2 EXAMINATIONS

COURSE CODE: CIT333

COURSE TITLE: SOFTWARE ENGINEERING

CREDIT: 2 Units

TIME ALLOWED: 2 Hours

INSTRUCTION: Answer Question 1 and any other TWO (2) questions

- 1a) Distinguish clearly between software and program (3mks)
- b) Software engineering is a conglomeration of many sub disciplines. Mention and clearly explain any five (4) sub-disciplines of Software engineering (8mks)
- c). Distinguish between verification and validation process in software (6mks)
- d) Mention and explain the *four* goals of software engineering (8mks)
- e) Distinguish between Alpha and beta testing (5mks)
- 2 a) Explain five sound engineering principles that must be applied throughout software development Process (15mks)
- b) Mention five way in which software crisis can manifest (5mks)
- 3) Write short notes on the following
 - i) Software development (4mks)
 - ii) Software life cycle (4mks)
 - iii) Software maintenance (4mks)
 - iv) Software configuration management (4mks)
 - v) Software Testing (4mks)
- 4) Describe fully the following models in software engineering
 - a) Waterfall model (7mks)
 - b) Incremental model (7mks)
 - c) Spiral model (6mks)
- 5 a) Define requirement elicitation and mention four tools that can be used to accomplish it (5mks)
- b) In writing modular program, mention and explain three major processes involved. (6mks)
- c) Explain the following: *Black box testing*, *white box testing* and *grey box testing* (9mks)