

**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI – ABUJA**  
**FACULTY OF SCIENCES**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**2023 2 EXAMINATIONS\_**

---

**COURSE CODE: CIT333**

**COURSE TITLE: SOFTWARE ENGINEERING**

**COURSE CREDIT: 2 UNITS**

**TIME ALLOWED: 2 HOURS**

**INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER THREE (3) QUESTIONS**

**QUESTIONS**

- 1)
  - a) Write on any 5 sub-disciplines of Software engineering. *(5 marks)*
  - b) Enumerate any 7 functions of a software engineer. *(5 marks)*
  - c) State six stages of software development. *(3 marks)*
  - d) Explain Modularity and its classification. *(5 marks)*
  - e) Outline categories of software development tools. *(3 marks)*
  - f) Identify any four methods to test non-functional aspects of software. *(4 marks)*
  
- 2) Elucidate on the following software life cycle models:
  - i) Waterfall model *(5 marks)*
  - ii) V-Shaped model *(5 marks)*
  - iii) Incremental model *(5 marks)*
  
- 3)
  - a) What do you understand by Software Quality Assurance? *(2 marks)*
  - b) Describe any two types of standards. *(4 marks)*
  - c) Highlight two software quality assurance activities. *(2 marks)*
  - d) Justify the process of Formal Test Monitoring in Software Engineering. *(7 marks)*
  
- 4)
  - a) Describe Compatibility Testing. *(2 marks)*
  - b) Mention computing environments that require compatibility testing. *(7 marks)*
  - c) Highlight browser compatibility test. *(2 marks)*
  - d) Describe software compatibility testing. *(2 marks)*
  - e) Explain operating system compatibility testing. *(2 marks)*
  
- 5)
  - (a) Differentiate between functional and non-functional requirements *(2 marks)*
  - (b) Describe requirement analysis. *(5 marks)*
  - (c) Justify the need for requirement analysis. *(5 marks)*
  - (d) Mention the 3 key steps in the requirement analysis process. *(3 marks)*