



NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF COMPUTING
DEPARTMENT OF COMPUTER SCIENCE
2024 1 EXAMINATION

COURSE CODE: CIT432
COURSE TITLE: SOFTWARE ENGINEERING II
COURSE UNIT: 2
TIME: 2¹/₂HRS
INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER TWO (2) QUESTIONS

Question One

- (a) Discuss the ethical and professional responsibilities of a software engineer. [7 Marks]
- (b) Explain the role of the NATO Software Engineering Conferences in the development of software engineering principles and practices. [7 Marks]
- (c) Explain the importance of the Capability Maturity Model (CMM) and its influence on software engineering practices. [7 Marks]
- (d) i) Describe the role of software engineering practices and methodologies in mitigating the software crisis. [5 Marks]
ii) Discuss the impact of the software crisis on the emergence of software engineering as a field. [4 Marks]

Question Two

- (a) Describe the evolution of software engineering as a discipline and its historical milestones. [7 Marks]
- (b) State the difference between a Software Developer and Software Engineer. [7 Marks]
- (c) Discuss the key contributions of notable figures in the history of software engineering. [6 Marks]

Question Three

- (a) Define the role of a software engineer and discuss the skills and qualifications required for the profession. [6 Marks]
- (b) Explain the responsibilities of a software engineer in different stages of the software development life cycle. [7 Marks]
- (c) Discuss the importance of teamwork and collaboration in software engineering projects. [7 Marks]

Question Four

- (a) Discuss the challenges and future prospects for software engineers in the evolving technological landscape. [7 Marks]
- (b) Describe the ethical and legal considerations that software engineers need to be aware of. [7 Marks]
- (c) Discuss the purpose of use case diagrams in software design. [6 Marks]

Question Five

- (a) Discuss the importance of testing and quality assurance in the SDLC. **[7 Marks]**
- (b) Explain the concept of responsive design and its significance in modern software user interface development. **[7 Marks]**
- (c) Explain the concept of information architecture and its relevance to software user interface design. **[6 Marks]**

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