



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI – ABUJA
FACULTY OF SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
2021_1 EXAMINATION

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) Highlight the two major components of a computer system and briefly explain the non-physical component of a computer system. *(4 marks)*
- b) Outline three areas that evolution of software engineering is notable. *(3 marks)*
- c) Describe any solution to software crisis. *(2 marks)*
- d) State the two types of requirements and explain requirement analysis. *(4 marks)*
- e) Highlight the fundamental design concepts. *(10 marks)*
- f) Describe any two guidelines for writing Pseudo code. *(2 marks)*

- 2) (a) Identify and give the two (2) main causes of software crisis *(2 marks)*
(b) State six manifestations of software crisis *(3 marks)*
(c) Analyse the software requirements analysis process. *(4 marks)*
(d) Elucidate on the three steps in the requirement analysis process. *(6 marks)*

3. a) Write a short note on CASE tools. *(5 marks)*
(b) Outline five typical CASE tools. *(5 marks)*
(c) Analyse the term Pseudo-code. *(2 marks)*
(d) Describe programming environment. *(3 marks)*

4) Provide a comprehensive analysis of the following software life cycle model. *(15 marks)*

- i) Incremental Model
- ii) Spiral Model
- iii) V-Shaped Model

5.(a) What is implementation? *(2 marks)*

- (b) Describe the three kinds of error in a system. *(6 marks)*
- (c) Write a short note on software testing. *(5 marks)*
- (d) Explain Grey Box Testing. *(2 marks)*