



NATIONAL OPEN UNIVERSITY OF NIGERIA
UNIVERSITY VILLAGE, PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE
EXPRESS WAY, JABI, ABUJA
DEPARTMENT OF COMPUTER SCIENCE
2020_1 SEMESTER

COURSE CODE: CIT 333

COURSE TITLE: SOFTWARE ENGINEERING

CREDIT UNIT: 2

TIME ALLOWED: 2 HOURS

INSTRUCTIONS: ANSWER QUESTION 1 AND THREE (3) OTHER QUESTIONS

Questions

- 1a) (i) System software helps to run the computer hardware and the entire computer system.
State any four composition of system software. **(2 marks)**
(ii) Briefly describe six Sub-disciplines of Software engineering **(3 marks)**
(iii) Briefly explain the Software life cycle models according as used in software development **(3 marks)**
- 1b) (i) What are the remedies to software crisis as applicable in software engineering? **(3 marks)**
(ii) What are the various stages of software development? **(2 marks)**
(iii) Define Software life cycle models in the concept of software development **(3 marks)**
- 1c) (i) What the approaches of writing modular program **(4 marks)**
(ii) Outline the common CASE risks and associated control used in software development process **(3 marks)**
(iii) What are the Major Tasks in Implementation of software development? **(2 marks)**
- 2a Write short notes on the following types of testing methods:
(i) black box testing , (ii) white box testing (iii) Grey Box Testing (9 marks)
- 2b What are the different types of White box testing **(6 marks)**
- 3a) (i) Briefly explain Software Quality Assurance Activities **(3 marks)**
(ii) SQA assures that formal software testing, such as Acceptance testing, is done in accordance with plans and procedures. What are the objectives of SQA in monitoring formal software testing? **(6 marks)**
- 3b) (i) Outline the SQA activities during the architectural design phase of development software **(6 marks)**
- 4a Write short notes following Terms as used in Validation process **(12 marks)**
(i) Code Validation/Testing
(ii) Integration Validation/Testing:
(iii) Functional Validation/Testing
(iv) User Acceptance Testing or System Validation
- 4b Programming software offers tools to assist a programmer in writing programs and software using different programming languages. State four programming software tools **(3marks)**
- 5a) (i) What do you understand by the terms Application software **(3marks)**
(ii) List any six common applications of software mentioned in 5a (i) above **(6 marks)**
- (5b) What are the software engineering goals specified as a requirement for systems during its life cycle (6 marks)**