NATIONAL OPEN UNIVERSITY OF NIGERIA,
PLOT 91 CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI – ABUJA
FACULTY OF SCIENCES

NOVEMBER 2018 EXAMINATION

COURSE CODE: CIT 333
COURSE CREDIT: 2
COURSE TITLE: SOFTWARE ENGINEERING
TIME ALLOWED: 2 Hours
INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER THREE (3) QUESTIONS

QUESTIONS

1a. Imagine that you had applied to a software development firm for industrial training, and that you were accepted and deployed to work in the software engineering unit. State five (5) key roles you would play in that unit in order to ensure that you are relevant.

1a. Imagine that you had applied to a software development firm for industrial training, and that you were accepted and deployed to work in the software engineering unit. State five (5) key roles you would play in that unit in order to ensure that you are relevant. **(10 marks)**

1b. Assuming you were assigned the role of a project manager in a software development firm that requires you to cross-check their products before distribution, which software life cycle model would you employ in this firm. **(1 mark)**

1c. With the aid of a well-labelled diagram, outline the phases to be undertaken in the course of applying the software life cycle model chosen in 1b. outline the phases to be undertaken in the course of applying the software life cycle model chosen in 1b.

(10 marks)

1d. State two reasons for the model you employed in 1b. . State two reasons for the model you employed in 1b. **(4 marks)**

[Total = 25 marks]

2a. Within the context of formal software testing, write down any six (6) goals of software quality assurance. **(6 marks)**

2b. Give a short explanation of three (3) common standards' in Software Engineering

(6 marks)

2c. State any three (3) challenges encountered in the course of undertaking the process of requirements elicitation. 2c. State any three (3) challenges encountered in the course of undertaking the process of requirements elicitation.

(3 marks)

[Total = 15 marks]

3a. Enumerate four (4) major software quality assurance activities undertaken during the detailed design phase. . **(4 marks)**

3b. List six (6) elements required for compatibility testing in a computing setting.

(6 marks)

3c. State the main reason for establishing buddy checks. **(2 marks)**

3d. Outline any three (3) merits of the incremental life cycle model. **(3 marks)**

[Total = 15 marks]

4a. Write short notes on the following:

i. Product evaluation i. Product evaluation **(4 marks)**

ii. Product monitoring ii. Product monitoring **(4 marks)**

4b. State the key processes involved in the following phases:

i. Software Acceptance and Delivery Phase i. Software Acceptance and Delivery Phase **(2 marks)**

ii. Software Sustaining Engineering and Operations Phase ii. Software Sustaining Engineering and Operations Phase **(2 marks)**

4c. List any three (3) demerits of the spiral life cycle model. 4c. List any three (3) demerits of the spiral life cycle model. (3 marks)

[Total = 15 marks]

5a. Give a brief description of the following:

i. Symbolic debugging tool i. Symbolic debugging tool **(2 marks)**

ii. Profiling tool ii. Profiling tool **(2 marks)**

iii. Alpha testing iii. Alpha testing **(2 marks)**

iv. Acceptance testing iv. Acceptance testing **(2 marks)**

5b. List the four (4) levels of testing in software engineering: b. List the four (4) levels of testing in software engineering: **(4 marks)**

5c. Write down any three (3) elements in the computing environment that will require compat ibility testing. **(3 marks)**

[Total = 15 marks]