

**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**PLOT 91 CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI, ABUJA**

**FACULTY OF SCIENCES**

**DEPARTMET OF COMPUTER SCIENCE**

**OCTOBER, 2019 EXAMINATIONS**

**COURSE CODE: CIT 831**

**COURSE TITLE: SOFTWARE ENGINEERING METHODOLOGY**

**CREDIT: 3 Units**

**TIME ALLOWED: 2½ HOURS**

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

*.*

1a (i) What do you understand by methodology in software engineering? **(2marks)**

(ii) What are the problems of a waterfall model (**5 marks)**

(iii) What are the objectives of evolutionary development **(3 marks)**

b) Briefly demonstrate with the aid of a well labeled diagram the Incremental Development in Software Engineering methodology **(7Marks)**

1. **c)** Based on your Knowledge of Software Engineering and Methodology, produce the various stages of Software Testing **(5marks)**

2a. (i) Distinguish between Software Engineering and Computer Science (2marks)

**(ii)** Evaluate any 5 attributes of a good software **(5marks)**

2b. Explain the Software engineering methods, detailing the various methods involved. (***5marks)***

3a. Produce a software process model and explain the generic activities in all software processes.

(**5marks)**

3b. (i) A software process model is a *simplified* representation of a software process, presented from a specific perspective. Illustrate examples of process perspectives **(3marks)**

(ii)Explain what CASE tools are with examples. (**2marks)**

(iii) List the Generic process models (**2marks)**

4a.Examine issues of Professional Responsibility in Software Engineering **(6 marks)**

4b.(i) Assess 3 major difficulties of Waterfall Model **(3 marks)**

(ii) Illustrate the structure of the water fall model (**3marks)**

5a (i) Evaluate some problems of evolutionary development. **(3 marks)**

(ii) By means of a well labeled diagram, write on incremental development (**5marks)**

5b.(i) What does the acronym **CASE** refer to? Itemize **CASE** classification. (**1mark)**

5 (ii). Itemise **CASE** classification. (**3marks)**

6a. (i) What is software design (**1mark)**

(ii) Briefly describe briefly implementation (**2marks)**

(ii) What are the requirements for an engineering process? (**2marks)**

6b. Describe by means of a well labeled diagram, the Requirements Engineering Process

(**7marks)**