NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
MARCH/APRIL 2016 EXAMINATION

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: **CIT831**
COURSE TITLE: **SOFTWARE ENGINEERING METHODOLOGIES**

Total mark is 70 and each question carries 14 marks
Answer 5 Questions in 3.00 Hours.

1(a) Explain the term "Software" (4 marks)
1(b) Outline four (4) attributes of a good software (4 marks)
1(c) List and explain three (3) Issues of Professional Responsibility (6 marks)

2(a) Describe Waterfall Model? (5 marks)
2(b) Outline three (3) problems associated with waterfall model (6 marks)
2(c) List three advantages of Incremental Development (3 marks)

3(a) What do you understand by Requirements Engineering? (5 marks)
3(b) Outline three (3) the CASE classification. (3 marks)
3(c) List and explain three (3) types of Requirements(6 marks)

4(a) What is a Feasibility Study? (4 marks)
4(b) Outline four (4) types of model (4 marks)
4(c) List and explain three (3) Requirements Checking (6 marks)

5(a) Describe at least 3 architectural models.(4 marks)
5(b) Explain the Repository Model and list three advantages (4 marks)
5(c) Write short note on each of the following:
    (i)   Sub-System
    (ii)   Module
    (iii)   Modular Decomposition
         (2 marks each)

6(a) Describe Software Life-Cycle Models (4 marks)
6(b) Outline three (3) advantages of Formal Specification (6 marks)
6(c) Explain the term " Software Design" and list three stages of it.(4 Marks)

7(a) Write short note on each the following:
- (i)   Validation and Verification
- (ii)   Software Inspection
- (iii)   Testing and Debugging

         (2 marks each)

7(b) Outline four (4) benefits of re-use (4 marks)

7(c) List four (4) prototyping steps (4 marks)