



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS**  
**SEPTEMBER/OCTOBER 2015 EXAMINATION**  
**SCHOOL OF SCIENCE AND TECHNOLOGY**

**COURSE CODE: CIT 831**

**COURSE TITLE: Software Engineering Methodology (3 Credits)**

**Total mark is 70 and each question carries 14 marks.**

**Answer 5 Questions in 3.00 Hours**

1(a) Describe Software Life- Cycle Model (3 marks)

1(b) Give the full meaning of the following acronyms:

- (i) UML
- (ii) CASE
- (iii) BIOS
- (iv) DOS
- (v) ROM
- (vi) GUI
- (vii) OMT

(1 mark each)

1(c) Write short note on the following:

- (i) Prototyping Model
  - (ii) Unified Modelling Language
- ( 2 marks each)

2(a) Explain Software Engineering Methodology (4 marks)

2(b) List and explain three (3) attributes of a good software. (6 marks)

2(c) Distinguish between Software Engineering and Computer Science (4 marks)

3(a) With a diagram, describe the waterfall model (6 marks)

3( b) List four (4) advantages of formal specification (8 marks)

4(a) What is a Requirement? (4 marks)

4(b) Mention and explain three (3) types of Requirements (6 marks)

4(c) List four (4) requirements checking in software development (4 marks)

5(a) Describe software Re-use and list explain three (3) benefits of Re-Use.  
( 8 marks)

5(b) Distinguish Between the following:

- (i) Verification and Validation Process
- (ii) Testing and Debugging
- (iii) Inspections and Testing

(2 marks each)

6(a) What are CASE tools? (4 marks)

6(b) List three (3) advantages of Spiral model (6 marks)

6(c) Identify two (2) advantages and two (2) disadvantages of a prototype.  
(4 marks)

7(a) Describe software Design (4 marks)

7(b) Mention three (3) benefits of feasibility studies (6 marks)

7(c) List two merits and two demerits of Repository Model (4 marks)