National Open University of Nigeria, 91 Cadastral Zone Nnamdi Azikiwe Express Way, Jabi Abuja.

Faculty of Science

CIT 831 – SOFTWARE ENGINEERING METHODOLOGIES (3 Credits)

Total mark is 70 and each question carries 14marks

Answer 5 Questions in 3.00 Hours.

1(a) Explain the term " Software process Model " (4 marks)

1(b) Outline four (4) attributes of a good software (4 marks)

1(c) Write short notes on **three** of the following:

- (i)   Confidentiality
- (ii)   Competence
- (iii)   Intellectual Property rights
- (iv)   Computer Misuse
         (6 marks)

2(a) Explain software design and implementation. (4 marks)

2(b) Translate the Repository Model and locate three advantages (4 marks)

2(c) Write short notes on the following:

- (i)   Sub-System
- (ii)   Module
- (iii)   Modular Decomposition
        (2 marks each)

3(a) Describe a feasibility study? (4 marks)

3(b) Identify four (4) types of model (4 marks)

3(c) List and explain three (3) Requirements Checking (6 marks)

4(a) Explain the term "Requirements Engineering" (5 marks)

4(b) Outline three (3) the CASE classification.(3 marks)

4(c) List and explain three (3) types of Requirements (6 marks)

5(a) Describe Software Design and list their stages (6 marks)

5(b) Discuss Relevance of System Modelling and outline its model types (4 marks)

5(c) Illustrate with diagram Data flow diagrams (4 marks)

6 (a) Describe Software Prototyping and outline stages (6 marks)

6(b) Identify and explain at least 2 architectural models. (4 marks)

6 (c) Discuss the Unified Modelling Language (UML) with examples (4 marks)