NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
MAY/JUNE 2012 EXAMINATION

CIT 731 Software Engineering Methodologies
Time Allowed: 3hrs

Instruction: Answer any five (5) questions.

1a. Give a concise definition of an architectural design. (2 marks)

1b. Enumerate the distinct phases of the waterfall model. (5 marks)

1c. State four (4) guidelines for writing requirements? (4 marks)

1d. Briefly describe the three requirements validation techniques (9 marks)

2a. What are CASE tools? (3 marks)

2b. List and describe six (6) attributes of a good software. (12 marks)

2c. State five qualities required in validity checking. (5 marks)

3a. When is re-application desirable in an existing software? (12 marks)

3b. Describe two problems of domain requirements. (8 marks)

4a. List five architectural models and specify their roles (10 marks)

4b. Write short notes on the following:
Sub-system)
Module) (3 marks each, Total=9)
Modular decomposition)

4c. What type of language is employed in writing requirements? (1 mark)

5a. (i) What are formal specifications? (4 marks)
(ii) State the factors on which formal specifications are based. (4 marks)

5b. Give a brief description of the following:
i) Software design)
ii) Structured methods) (4 marks each, Total=12)
iii) System models)

6a. Software products developed by means of the spiral model are usually prone to
hazards. Cite five (5) practical instances. (15 marks)

6b. List any five (5) components of the requirements document. (5 marks)

7a. Identify and describe two types of domain-specific models. (8 marks)

7b. What is the most effective technique for discovering errors? (2 mark)

7c. State the inspection pre-conditions. (6 marks)

7d. Identify four stages of design. (4 marks)