



NATIONAL OPEN UNIVERSITY OF NIGERIA
14/16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
MARCH/APRIL 2014 EXAMINATION

COURSE CODE: CIT 703

COURSE TITLE: INFORMATION TECHNOLOGY AND SOFTWARE DEVELOPMENT

TIME ALLOWED: 3 HOURS

INSTRUCTION: ANSWER ANY FIVE QUESTIONS

1. Briefly explain the following models:
 - i) SoftwareProcess Model.
 - (ii) Workflow Model
 - (iii) Data Model
 - (iv) Role Model

14 marks
- 2a. Explain what is meant by mapping cardinality.
4 marks
- b. For binary relationship sets between entity sets A and B, outline four possible mapping cardinalities.
10 marks
- 3a. Explain the UML concept.. 4
marks
- b. List the parts of the UML 2.x specification.
4 marks
- c. Outline how UML diagrams represent two different views of a system model. 6 marks
4. Outline seven activities involved in the initiation stage of the acquisition of software. 14 marks
- 5a. Describe the following concepts in software project planning
(i). Work breakdown (ii) Task allocation (iii) Guesstimation
6 marks
- b. List and explain two problems encountered in guesstimation
4 marks
- c. Describe the two key control elements in software project planning
4 marks

6. Outline five components of DBMS.
14 marks

7a. Explain the following terms:

- i. Transition network
- ii. State
- iii. Transition

6 marks

b. Describe the following: Conditions, Actions and Events
marks

6

c. What is a state transition diagram?

2 marks