NATIONAL OPEN UNIVERSITY OF NIGERIA

University Village, Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi, Abuja

FACULTY OF SCIENCES

JULY 2017 EXAMINATION

Course Code: CIT 851

Course Unit: 3

Course Title: Advanced Systems Analysis and Design

Instruction: Answer Question One and Any Four Other Questions

Time allowed: $2^{1/2}$

1a. Explain why businesses need system analysts
5 marks

b. With the aid of a diagram, describe the phases of the system development life cycle 7 marks

c. List and explain the properties of database fields.
6 marks

d. What is a schema and why are changes to it expensive?
4 marks

2a. Explain Data modeling
2 marks

b. What principles should be adopted for making a successful system?
4 marks

c. i. What is a sequence diagram?
3 marks

ii. Give an example of a sequence diagram
3 marks

3a. What is a closed system and how does it differ from open systems
2 marks

b. Write a short note on the following

i. Entities
1½ marks

ii. Attribute 1½ marks

iii. Relationships
1½ marks

c. i. Write a short note on expert systems
2 marks

ii. Give a diagrammatic representation of the components of an expert system 2½ marks

4a. What is a data dictionary and why is it important?
4 marks

b. i. Explain the role of Management Information Systems in an organization
2 marks

ii. Describe the applications of Management Information Systems.
3 marks

c. Write a short note on abstraction
3 marks

5a. Describe any two types of coupling
4 marks

b. Mention the disadvantages of using questionnaire for systems planning
2 marks

c. What is the objective of any testing mechanism?
3 marks

d. Write a short note on cohesion.
3 marks

6a. Discuss the issues in Software Maintenance
4 marks

b. What are the objectives of Audit?
3 marks

c. Discuss the following terms as related to systems

i. Purpose ii. Boundary iii. Environment

iv. Inputs v. Outputs

5 marks