



NATIONAL OPEN UNIVERSITY OF NIGERIA
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-
ABUJA**
FACULTY OF SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
2024 1 EXAMINATION

COURSE CODE : CIT 851

COURSE TITLE : Advanced Systems Analysis and Design

CREDIT UNIT : 3

TIME ALLOWED : 2½ HOURS

INSTRUCTION : Answer Four Questions. Question 1 is compulsory

1. a) After looking at what systems analysis is. Is it helpful to know what *systems analysis* is **'NOT'**. **Explain. [6 marks]**
b) Enumerate the initial four phases that were put forth by Herbert Simon to enable problem solving. **[4 marks]**
c) What is Cohesion?. Differentiate between the *Functional and Sequential Cohesion* **[5 marks]**
d) Explain the techniques involved in concurrent Audit. **[5 marks]**
e) What are the general principles for input design? **[5 marks]**
2. a) Define the concept of subsystem and provide an example of a subsystem that exists in a real-world business setting based on your explanation. **[3 marks]**
b) What is the importance of system documentation in the context of the software development? **[6 marks]**
c) A good design should aim to produce a system that is simple to understand, programed, and maintain. List the objectives for a successful design. **[6 marks]**
3. a) What distinguishes information requirements determination from information requirements specification? **[6 marks]**
b) Explain the two categories or types of questionnaires that are commonly used. **[4 marks]**
c) What benefits do forms provide in a database management system? **[5 marks]**
4. a) Explain each principle of design that is used in creating the modules specifications **[6 marks]**
b) Enumerate the procedures or actions that should be taken to ensure a successful Joint Application Development (JAD) session. **[3 marks]**
c) Describe the issues or problems related to operational viability. **[6 marks]**
5. a) Based on your understanding of usability, who is a system user? **[3 marks]**
b) Explain the purpose of data dictionaries for analysts and provide five reasons why they are considered essential in the field of data analysis? **[5 marks]**
c) Describe the tools used for the representation of various design aspects **[7 marks]**
6. a) List five feasibility types that are considered during the analysis phase. **[5 marks]**
b) State the relevant goals of a good design **[5 marks]**
c) Can you explain in detail why organizations need systems analysts? **[5 marks]**