



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-  
ABUJA**  
**FACULTY OF COMPUTING**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**2024\_2 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) Why is a System considered an interdependent component. Justify your answer? **[4 marks]**  
b) Why is a Systems Analyst required to possess good communication skills? **[7 marks]**  
c) Define the term Process Modeling **[4 marks]**  
d) Write short note on the following. **[6 marks]**  
    i) Knowledge Base ii) Inference Engine iii) Knowledge Engine.  
e) List and explain the two types of Real Time systems that you know **[4 marks]**
2. a) Since distributed systems paradigms are user-friendlier. State 4 advantages to justify your claims. **[4 marks]**  
b) Enumerate the sections or format components that are included in the software user documentation, as described in IEEE 1063: Software User Documentation. **[7 marks]**  
c) Outline the prerequisites that a systems analyst must satisfy in order to be qualified. **[4 marks]**
3. a) Provide an explanation of the different methods used to develop information systems. **[6 marks]**  
b) What are the potential issues that may arise when the system requirements are inaccurate? **[4 marks]**  
c) Because system inputs are created via forms. List the fundamental guidelines for input design. **[5 marks]**
4. a) Provide a comprehensive explanation of the two primary categories of system users. **[4 marks]**  
b) Identify the 4-issue related to imprecise requirements **[5 marks]**  
c) Describe an abstraction in detail. **[6 marks]**
5. a) What are the general steps involved in a problem-solving approach? list them in the order in which they typically occur. **[3 marks]**  
b) What are the key considerations or requirements when designing a form that meets the following goal? Forms should be well conceived and attractive in design **[5 marks]**  
c) What are the characteristics of System Requirements Specification **[7 marks]**
6. a) Explain the requirements that must be met during the phases of the SDLC. **[6 marks]**  
b) Describe the real-time Systems **[3marks]**  
c) How would you characterize an analyst in terms of a business system? **[3 marks]**  
d) What is the usefulness of a Data flow diagram? Mention any one data Flow Diagram tools **[3 marks]**