



**NATIONAL OPEN UNIVERSITY OF NIGERIA,
University Village, 91 Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi, Abuja
FACULTY OF SCIENCE
DEPARTMENT OF COMPUTER SCIENCE
SEPTEMBER, 2020 EXAMINATIONS**

COURSE CODE: CIT 721

COURSE TITLE: Information Systems Design and Programming

COURSE UNIT: 3 UNITS

TIME ALLOWED: 2 ½ Hrs

INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER FOUR (4) QUESTIONS

QUESTION ONE

- 1a) With the aid of a diagram, illustrate the relationship between the internal and external components of a system? **(3 marks)**
- 1b) Integrity is a major database issue. Justify with examples what manipulations could compromise data integrity? **(3 marks)**
- 1c) Mention and explain the major steps in the analysis and design cycle. **(3 marks)**
- 1d) Compare the relationship between the following information subsystems: TPS, MIS, DSS, EIS and ES **(6 marks)**.
- 1e) Differentiate between the factors that determine the feasibility of a system. **(3 marks)**
- 1f) Analyze the steps for formalizing evaluation procedure in systems analysis and design. **(4 marks)**

QUESTION TWO

- 2a) An IT organization is situated on a rectangular piece of land and there have been incidences of missing computers and other valuables. Now the company decides to put a perimeter fence to checkmate the situation. Construct or build a simple mathematical model that will enable them to determine the perimeter of the fence. Use single lettered and meaningful variables. State what each variable stands for. **(5 marks)**
- 2b) Identify five causes of requirement change. **(5 marks)**
- 2c) Analyze the components of an information system? **(2 marks)**

QUESTION THREE

- 3a) State the primary objectives of structured techniques. **(6 marks)**
- 3b) Identify four most important reasons for initializing system projects. **(4 marks)**
- 3c) Differentiate between data and information. **(2 marks)**

QUESTION FOUR

Using the following approaches differentiate how conflict are resolved between end-user and Information System department

- a) Monopolist Approach **(4 marks)**
- b) Laissez-Faire Approach **(4 marks)**
- c) Information Center Approach **(4 marks)**

QUESTION FIVE

- 5a)** Identify any six internal and six external sources of data when collecting data during systems analysis. **(6 marks)**
- 5b)** During project planning, System Boundary Document (SBD) elements are produced and presented for approval. Enumerate any four of them. **(6 marks)**

QUESTION SIX

- 6a) What is acquisition strategy development. **(2 marks)**
- 6b) A high-level programming language should possess certain characteristics. Identify these characteristics. **(5 marks)**
- 6c) Differentiate between an imperative language and a functional language. **(5 marks)**

