NATIONAL OPEN UNIVERSTYOF NIGERIA,
University Village, 91 Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi, Abuja
FACULTY OF SCIENCE
DEPARTMENT OFCOMPUTER 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 check mate 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)**