



**NATIONAL OPEN UNIVERSITY OF NIGERIA,
PLOT 91, CADASTRAL ZONE, UNIVERSITY VILLAGE, JABI – ABUJA
FACULTY OF SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
2020_1 EXAMINATION**

COURSE CODE: CIT851

COURSE CREDIT: 3 UNITS

COURSE TITLE: ADVANCED SYSTEMS ANALYSIS AND DESIGN

TIME ALLOWED: 2¹/₂ HOURS

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

Question One

- 1a. Outline the guidelines for user interface design. (3mks)
- 1b. Briefly describe the following types of CASE tools:
- i. Planning and management tools (2mks)
 - ii. Analysis tools (2mks)
 - iii. Information integrator (2mks)
 - iv. Database design toolset. (2mks)
- 1c. Write short notes on the following concepts:
- i. Systems Analysis (2mks)
 - ii. Systems Analyst (2mks)
 - iii. Systems Design (2mks)
- 1d. Outline the participants in a Joint Application Development and also explain their respective roles. (5mks)
- Total of 22mks**

Question Two

- 2a. Define the following terms:
- i. Outsourcing (1mk)
 - ii. Consulting (1mk)
- 2b. What are the expectations of a Systems Analyst in the development of a new information system. (4mks)
- 2c.
- i. List the four skills a Systems Analyst must possess. (2mks)
 - ii. Define the term System Development Life Cycle. (1mk)
 - iii. List the phases of System Development Life Cycle. (1mk)
- 2d. Distinguish briefly between Logical Design and Physical Design. (2mks)

Question Three

- 3a. What is cost benefit analysis? (4mks)
- 3b. In cost benefit analysis, discuss briefly the following:
- i. Cost of Human Resources (1m)
 - ii. Cost of Infrastructure (1mk)
- 3c. Economic feasibility has two components: costs and benefits, briefly discuss both of them. (4mks)
- 3d. What is Joint Application Development (JAD)? (2mks)

Question Four

4a. Write briefly on the steps to follow during physical design as relates to systems analysis and design. (3mks)

4b. With respect to E-R diagram, write briefly on the following:

- i. Entity (1mk)
- ii. Attribute (1 ½ mks)
- iii. Relationships (1mk)
- iv. Cardinality (1mk)

4c.

- i. What are the five criteria for form design? (2 1/2mks)
- ii. Explain any two of the criteria in 4c (i) above. (2mks)

Question Five

5a. what are the restrictions for naming tables and fields in database. (1 1/2 mks)

5b.

- i. What is CASE tool? (1mk)
- ii. What are the five generic classifications of CASE tool? (2 ½ mks)
- iii. Discuss any two of the five generic classifications of CASE tool. (3mks)

5c. Describe briefly the following types of system testing:

- i. Recovery testing (2mks)
- ii. Security testing (2mks)

Question Six

6a.

- i. Describe a user manual. (2mks)
- ii. Outline any five components of a user manual. (2 ½ mks)

6b. Briefly explain the factors which affect the ease of software maintenance. (4 ½ mks)

6c. Write briefly on the following:

- i. Organizational Issues (1mk)
- ii. Process Issues (1mk)
- iii. Technical Issues (1mk)