

NATIONAL OPEN UNIVERSITY OF NIGERIA University Village, 91 Cadastral Zone, NnamdiAzikwe Expressway, Jabi, Abuja FACULTY OF SCIENCES COMPUTER SCIENCE DEPARTMENT 2023 1 POP EXAMINATION

Course Code: CIT701

Course Title: Foundation of Information and Communication Technology

Course Credit Unit: 3

Time: 3hrs

Instruction: Answer question 1 and any other three (3) questions.

- 1a) What are the measures that should be taken to ensure ICT service reliability? (4 marks)
- b) State four characteristics of the management information systems? (4 marks)
- c) Distinguish between Web-based application and personal/enterprise applications? (4 marks)
- d) Enumerate the two types of interview conducted by a System Analyst during analysis? (3 marks)
- e) What is feasibility and whose responsibility is it in the Information Technology (IT) department? (2 marks)
- f) Who is the most valuable player in ICT application projects? Substantiate your answer. (4 marks)
- g) List the four categories of hardware with examples. (4 marks)
- 2a) Define Network Topology. List any four types. (3 marks)
- b) Discuss Database Normalisation? (6 marks)
- c) In a tabular form, give three technologies of Web services and their functions. (6 marks)
- 3a) Briefly describe the four kinds of systems program you know. (6 marks)
- b) (i) What do you understand by Web services? (1 mark)
 - (ii) Describe any two web services. Illustrate your answer with well-labelled diagrams. (8 marks)
- 4a) Outline in details the workings of web-based application. (7 marks)
- b) Write short notes on the following network devices:
 - (i) Switches (4 marks)
 - (ii) Routers (4 marks)
- 5a) The **Open Systems Interconnectivity** (OSI) model has seven layers. Briefly describe the function(s) of these layer from the lowest to the highest. (10½ marks)
- b) Briefly explain three concurrency procedures followed in Data Warehousing? (4½ marks)
- 6a) Write short notes on types of network connection. (7 marks)
- b) Briefly describe four principal data models. (6 marks)
- c) List four functions of a Database Management System (DBMS). (2 marks)