



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI, ABUJA**  
**FACULTY OF COMPUTING**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**2024 1 EXAMINATION**

**COURSE CODE: CIT305**

**COURSE TITLE: NETWORKING AND COMMUNICATION TECHNOLOGY**

**COURSE CREDIT: 3 UNITS**

**TIME ALLOWED: 2½ HOURS**

**INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER THREE (3) QUESTIONS**

**QUESTIONS**

1. Assuming you were invited in a workshop on Networking and Communication Technology to enlighten the participants on how the Digital Subscriber Line (DSL) works,

- 1a. Briefly explain DSL. **(4 Marks)**
  - 1b. Enumerate four (4) features of the DSL. **(4 Marks)**
  - 1c. Mention and briefly explain two (2) advantages of the DSL. **(4 Marks)**
  - 1d. State any two (2) disadvantages of the DSL. **(2 Marks)**
  - 1e. Explain the concept of 'Multiplexers as it relates to electronics' **(2 marks)**
  - 1f. A common trend in Networking and Communication Technology is the Integrated Services Digital Network (ISDN). State and explain briefly two (2) major types of access provided in the ISDN. **(6 marks)**
- 1g The IEEE 802 standard is typical in Networking and Communication Technology. State the implication of this standard. (3 marks)

**[Total = 25 marks]**

2a. Write short notes on the following common analog modulation techniques:

- i. Amplitude Modulation (AM) **(2 marks)**
- ii. Double-Sideband Modulation (DSB) **(2 marks)**
- iii. Single-sideband modulation (SSB, or SSB-AM) **(2 marks)**

2b. Explain briefly the following Digital Modulation Techniques:

- i. Amplitude-Shift Keying (ASK)
- ii. Frequency-Shift Keying (FSK)
- iii. Phase-Shift Keying (PSK) **(6 marks)**

2c Write short notes on the following:

- i. GSM and GPRS **(1.5 marks)**
- ii. Power Over Ethernet (POE) **(1.5 marks)**

- 3a. How would insert rows and columns in MS-Excel document? 5 marks  
3b. How do you insert a new worksheet in MS-Excel document? 5 marks  
3c. Describe how to delete worksheet in a MS-Excel document. 5 marks  
3d. How would you hide or unhide commands in MS-Excel document? 5 marks

4. Write short notes on the following concepts:

- (i) Wildcards
- (ii) Database
- (iii) Database Management System (DBMS)
- (iv) Filtering a database
- (v) Printing
- (vi) Field, Field name and Database range
- (vii) Record
- (viii) Computer field
- (ix) Functions
- (x) Auto sum Command

20 marks