



SCHOOL OF SCIENCE & TECHNOLOGY
2023/2024 FIRST SEMESTER EXAMINATION

CLASS: ND II, COMPUTER SCIENCE (FT & PT)

COURSE: COM 214 (COMPUTER SYSTEM TROUBLESHOOTING)

TIME ALLOWED: 3 HOURS

INSTRUCTION: ANSWER 4 QUESTIONS FROM SECTION A, 1 QUESTION FROM SECTION B

SECTION A

Question 1

- a. List 5 problems MODEMs are likely to encounter and recommend solutions for each. (5 Mks)
b. With the aid of a diagram, describe how the MODEM works. (7 Mks)
c. (i) Distinguish between power up, boot up and start up.
(ii) List five possible causes of Windows Start up failure. (8 Mks)

Question 2

- a. (i) Define the term 'Illegal Operation'
(ii) List 8 causes of illegal operation (7 Mks)
b. (i) List and explain five solution to correct illegal operations of a system.
(ii) Describe the Zero hour virus. (7 Mks)
c. Distinguish between the:
'Unlicensed Virus Protection Utility' and 'Outdated Virus Protection Utility'. (6 Mks)

Question 3

- a. List the two common ports/ connectors that connect Printers to PC. (4 Mks)
b. Distinguish between the following:
'Switch' and 'Router'
TCP and UDP (12 Mks)
c. State the causes and solutions for the following Network Problems
Congestion
File Check Sequence Errors (FCS)
Collision Error
Unknown Protocol
(4 Mks)

Question 4

- a. (i) List and explain four common problems in a wireless network.
(ii) Recommend solutions for each of 5a (i) (8 Mks)
b. Outline eight (8) troubleshooting guidelines when printing problems exist. (8 Mks)
c. A student was asked to network systems in the ICT, Name two topologies she is likely to employ and problems she is likely to occur in each topology. (4 Mks)

Question 5

SECTION B

Question One

- Iai. Explain common issues with peripheral devices (e.g., printers, external drives) and how to troubleshoot them. (4marks)

Iaii. Discuss four (4) potential causes of failure in virus protection utilities and how to address them. (4marks)

Iaiii. Name two software diagnostic tools used for troubleshooting software-related issues on a computer system. (2marks)

bi. Name and describe two diagnostic tools used for troubleshooting peripheral device failures. (5marks)

ii. Why is documenting the steps taken and outcomes during the fault diagnosis process important? How does it aid in future troubleshooting efforts? (5marks)

Question TWO

- 2ai. Describe the five (5) steps you would take to identify the source of a computer system issue where the screen remains blank upon startup. (5marks)

2aii. Compare and contrast the functionality of disk utility tools available on Windows, macOS, and Linux systems. (3marks)

2aiii. Outline the steps you would take to troubleshoot a malfunctioning external hard drive that is not being recognized by the computer. (3marks)

2bi. How would you diagnose and troubleshoot issues related to faulty RAM? In Five (5) steps. (5marks)

2bii. Describe the steps you would take to troubleshoot a network connection issue where a computer cannot connect to the internet. (4marks)