



UGANDA BUSINESS AND TECHNICAL EXAMINATIONS BOARD

Business and Humanities Certificate Examinations

APRIL-MAY 2022 SERIES

PROGRAMME

NATIONAL CERTIFICATE IN INFORMATION AND COMMUNICATION
TECHNOLOGY

PAPER NAME

NETWORKING AND DATA COMMUNICATION

PAPER CODE

NCIT212

YEAR II, SEMESTER I

2½ HOURS

THURSDAY, 05TH MAY, 2022

INSTRUCTIONS TO CANDIDATES

1. This paper consists of **two** sections **A** and **B**.
2. Section **A** is compulsory and carries **20** marks.
3. Section **B** consists of **six** questions. Answer only **four** questions from this section.
4. All questions carry equal marks.
5. All answers to each question should begin on a fresh page.
6. All answers and rough work should be written in the official answer booklet provided.
7. **Do not** write on the question paper.
8. Read other instructions on the answer booklet.

SECTION A - (20 MARKS)

Answer all questions in this section.

Question One

- (a) Discuss the main advantage of using networking to a bank. (02 marks)
- (b) Define the term **network access point** as used in networking. (02 marks)
- (c) Differentiate between **Rj-45** and **Rj-11** network cable connectors. (04 marks)
- (d) Write down the IEEE standard specifications for the following;
 - (i) Bluetooth (02 marks)
 - (ii) Wi-Fi (02 marks)
- (e) Distinguish between **IPv4** and **IPv6**. (04 marks)
- (f) Outline **two** services offered by internet in the learning institution. (02 marks)
- (g) Define **Domain name service**. (02 marks)

SECTION B - (80 MARKS)

Answer only four questions from this section.

Question Two

- (a) Distinguish between an **ISP** and **internet protocol**. (04 marks)
- (b) Identify **four** services offered by the internet to the society. (08 marks)
- (c) Describe **four** diadvantages of using internet in society. (08 marks)

Question Three

- (a) With the help of an illustration, explain **two** types of signals. (08 marks)
- (b) Give the application of the following transmission media cables.
 - (i) Fibre optics (02 marks)
 - (ii) Coaxial cable (02 marks)
 - (iii) Twisted pair cables (02 marks)
- (c) A traffic officer on the main road was reporting an accident to the nearby police station using a Radio call while the administrator at the police station was typing the statement on the desktop.
 - (i) Explain the form of data transmission the traffic officer is using. (02 marks)
 - (ii) Describe the form of data transmission the administrator is using. (02 marks)
 - (iii) Analyse the other form of data transmission apart from those in 3(c). (02 marks)

Question Five

- (a) Define the following terms as applied in computer networking.
 - (i) Troubleshooting (02 marks)
 - (ii) Maintenance (02 marks)
- (b) List **four** troubleshooting basic tools used for windows connection. (04 marks)
- (c) Explain **four** causes of network failure. (08 marks)
- (d) Discuss how best to prevent the network failure in 5(c). (04 marks)

Question Six

- (a) Define the term **network**. (02 marks)
- (b) Explain **four** types of networks. (08 marks)
- (c) Describe **five** factors you would consider while setting up a network. (10 marks)

Question Seven

- (a) Differentiate between a **network topology** and **network devices**. (04 marks)
- (b) Explain **four** network topologies. (08 marks)
- (c) State **one** advantage and **one** disadvantage for each of the topologies in 7(b). (08 marks)

END