REFORMED CHURCH UNIVERSITY

FACULTY OF COMMERCE

BACHELOR OF COMMERCE HONOURS DEGREE IN ENTREPRENEURSHIP AND BUSINESS DEVELOPMENT

INFORMATION TECHNOLOGY AND COMPUTER APPLICATION

HEBD 112

PART 1 SEMESTER 1

Total Marks   [100]

DATE: DECEMBER 2023

Time: 3 Hours

INSTRUCTIONS

1. This paper has *six (6)* questions
2. Answer question *one (1)* and *any* other **three (3)**
3. Each question carries **25 marks**
4. Start each question on a new page

Question 1

a) Explain the features of a graphical user interface as used in computers.

(4)

b) Work out the hexadecimal equivalent of 101111100011_2 (3)

c) Convert

(i) 111.101_2 to decimal;   (2)

(ii) 14.6875_{10} to binary.   (2)

(iii) -17_{10} into 8-bit representation   (4)

d) Perform the following arithmetic operation   (4)

$$110.11_2 + 11.011_2$$

e) Discuss the following components of the CPU   (6)

(i) Arithmetic Logic Unit

(ii) Control Unit

(iii) Registers

c) Differentiate between system and application software citing examples.

(6)

d) Using diagrams, describe three network topologies used to show the

configuration of computers   (6)

Question 2

(a) Explain the importance of networking in today's digital age.   (8)

(b) Distinguish between Database and Database Management System (DBMS). (4)

(c) Differentiate between Primary and Secondary Memory, providing two examples for each. (6)

(d) Explain how a computer uses its memory during its operation. (6)

Question 3

(a) Explain the major differences between a random access and a sequential device. (5)

(b) (i) Explain THREE advantages and THREE disadvantages of laser printers in comparison with ink jet printers. (6)

(ii) Describe the operating principles of both types of printers. (6)

(c) Explain THREE functions of antivirus software. (6)

(d) Describe any THREE different types of cyber threats. (6)

Question 4

Discuss any four types of networks that can be used at an educational institution.

(25)

Question 5

(a) Explain what an Operating System is, and discuss its various functions. (10)

(b) Discuss how information technology can change the context of business

management. (15)

Question 6

'The increasing number of people now using the internet to meet new people and

socialise has brought people closer together'. Discuss. (25)

End of Paper