

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF CERTIFICATE IN COMPUTER SCIENCE

COSC00101: SOFTWARE PROJECT MANAGEMENT

STREAMS: CERT (COMP SCI) YIS1

TIME: 2 HOURS

DAY/DATE:

INSTRUCTIONS:

- Answer question **ONE** and **TWO** other questions
- Do not write anything on the question paper
- This is a **closed book exam**, no reference materials are allowed in the examination room
- There will be **NO** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely.

SECTION A (ANSWER ALL QUESTIONS IN THIS SECTION)

Question one (30 marks)

- a. List the 5 classifications of computers (5 mks)
- b. List 5 major components of a commercially available computer (5 mks)
- c. As a computer science student, why do you think studying the fundamentals of PCs is important to your future profession as a computer scientist? (5 mks)
- d. Define the following terms:
- i. Motherboard in a PC (2 mks)
 - ii. Device driver (2 mks)
- e. Explain three main types of system buses [6 mks]
- f. If [5 marks]

0 (Off) or 1 (On) = 1 Bit

8 Bits = 1 Byte

Convert the following into Bytes:

1 Kilobyte	=
1 Megabyte	=
1 Terabyte	=
1 Petabyte	=
1 Exabytes	=

SECTION B (ANSWER ANY TWO QUESTIONS ONLY!! IN THIS SECTION)

Question two (20 marks)

a. EXPLAIN the functions of the Following Parts of a PC Motherboard [10 mks]

- North bridge
- BIOS socket
- GPU Slot
- PCI slots.
- I/O ports

b. Convert the following

- i. Octal Number: 12570_8 to Decimal Equivalent (3 mks)
- ii. Hexadecimal Number: $19FDE_{16}$ to Decimal Equivalent (4 mks)
- iii. Convert 6.1_8 to decimal number (3 mks)

Question Three (20 mks)

a. Explain the functions of the following Computer hardware components (16 mks)

- RAM:
- GPU:
- SDD:
- Power Supply Unit:
- Monitor:
- Keyboard:
- Scanner:
- Plotter:

- b. List and Explain any TWO Storage device management utilities [4 mks]

Question Four (20 mks)

- a. The main role of the CPU is to execute instructions. Describe four steps involved in instruction execution. [8 marks]
- b. You are an ICT staff of an upcoming company and the management asks you to give the specification in order to procure the computers, explain five specifications that you would recommend to be considered. [10 marks]
- c. List Two-character coding schemes. [2 marks]

Question Five (20 mks)

- a. Describe five methods used in care and maintenance of computers. [5 marks]
- b. Today's world is almost dependent on computers, discuss five computer applications in our modern society. [10 marks]
- c. With appropriate Examples, differentiate off-the-Shelf software from proprietary software. [5 marks]
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