



PAN AFRICA CHRISTIAN UNIVERSITY

END OF SEMESTER EXAMINATION FOR DIPLOMA IN COMMUNICATION

JANUARY-APRIL 2019 SEMESTER

CAMPUS:	ROYSAMBU
DEPARTMENT:	COMPUTING & INFORMATION TECHNOLOGY
COURSE CODE:	DCM102
CAMPUS:	ROYSAMBU
COURSE TITLE:	INFORMATION & COMMUNICATION TECHNOLOGY
EXAM DATE:	MONDAY 8TH APRIL 2019
TIME:	1400HRS – 1700 HRS

INSTRUCTIONS

- This exam script has **TWO (2)** sections.
- Read all questions carefully before attempting.
- Answer All questions in Section **A** and any other Four questions in Section **B**.
- Write only your **student number** on the answer booklet provided.
- None programmable calculators permitted
- Calculators on phones, tablets and computers are NOT permitted in Theory Papers

SECTION A: (Answer ALL questions in this section)

Question 1:

- I. Define the following terms:
 - a) System Unit **(2 Marks)**
 - b) Motherboard **(2 Marks)**
- II. Distinguish between application software and system software and give an example for each. **(6 Marks)**
- III. State **four** components found on the computer motherboard. **(4 Marks)**
- IV. Giving an example for each, distinguish between storage medium and storage device as they relate to computer storage. **(6 Marks)**

SECTION B: (Answer any FOUR (4) questions in this section)

Question 2:

- I. Explain **three** applications of a computer in the present day society. **(6 Marks)**
- II. Distinguish between a bit and a byte. **(4 Marks)**
- III. Explain **three** features of a word processing application. **(6 Marks)**
- IV. Outline **four** examples of utility programs. **(4 Marks)**

Question 3:

- I. Describe the following terms as they relate to the CPU. **(4 Marks)**
 - a) Parallel Processing
 - b) Pipelining
- II. Explain **three** advantages of a computer network. **(6 Marks)**
- III. Explain **two** reasons why users may prefer a graphical user interface to a command line based interface. **(4 Marks)**
- IV. Explain the difference between shareware, freeware, and public-domain software. **(6 Marks)**

Question 4:

- I. Outline the steps of mail merge in a word processor. **(6 Marks)**
- II. Explain what a software suite is and state **two** advantages of a software suite. **(6 Marks)**
- III. Describe **two** functions of the central processing unit. **(4 Marks)**
- IV. Distinguish between volatile and non-volatile memory. **(4 Marks)**

Question 5:

- I. Explain **three** impacts of the Internet on the modern society. **(6 Marks)**
- II. Describe the following number systems:
 - a) Decimal **(2 Marks)**
 - b) Binary **(2 Marks)**
 - c) Octal **(2 Marks)**
 - d) Hexadecimal **(2 Marks)**
- III. Get the binary equivalent of each of the following numbers:
 - a) 5.625_{10} **(2 Marks)**
 - b) 36_8 **(2 Marks)**
 - c) AD_{16} **(2 Marks)**

Question 6:

- I. Define an operating system and give four types of operating system. **(6 Marks)**
- II. Explain the term booting and show how the operating system is involved in the boot process. **(6 Marks)**
- III. Distinguish between a cold and a warm boot. **(4 Marks)**
- IV. Show how the operating system is involved in each of the following activities:
 - a) Memory management **(2 Marks)**
 - b) Starting the computer **(2 Marks)**

Question 7:

- I. With help of a diagram describe the following types of network topologies:
 - a) Bus **(4 Marks)**
 - b) Ring **(4 Marks)**
 - c) Star **(4 Marks)**
- II. Explain the following terms:
 - i) Packets **(2 Marks)**
 - ii) Routers **(2 Marks)**
 - iii) Packet switching **(2 Marks)**
 - iv) IP Address **(2 Marks)**