



Minuwangoda Education Zone

Second Term Test – 2025

Grade 10

Information and Communication Technology

Name / Admission No:

Time: 02 Hours

Paper 11

◆ Instructions:

Answer only **five** questions including question number **one**.

Question 1 carries **20 marks**, each of the other questions carries **10 marks**.

01.)

- I. Write two examples of data used by the Department of Meteorology in preparing a weather report.
- II. Name a device that can be connected to a computer using each of the following ports:
 - a. RJ 45
 - b. PS/2
 - c. HDMI
 - d. Parallel port
- III. If the combined age of Kaween and Praveen is 101111_2 and Kaween is 31_8 years old, write Praveen's age as a decimal number.
- IV. Given the RGB values of a color as (185, 78, 0), find its hexadecimal value.
- V. Name two data transmission methods and provide an example for each.
- VI. Write the shortcut keys used in word processing software for the following functions:
 - a. Bold
 - b. Undo
 - c. Find
 - d. Center
- VII. A motion sensor (M) and a temperature sensor (T) are installed to protect a valuable plant. A buzzer (Z) will sound only if the electrical system (E) is activated when either the plant is touched or the temperature exceeds normal room temperature. Draw the Boolean circuit relevant to this scenario.
 - Touch: 1 / No touch: 0
 - Temperature above room temperature: 1 / Below: 0
 - Buzzer sounds: 1 / Does not sound: 0
 - Electrical system activation – 1 / Electrical system not activation - 0
- VIII. Define telemedicine with an example.
- IX. A hub or a switch used in wired networking, which one do you recommend as the more suitable device? Give one reason.
- X. State the keyboard shortcut used to move to cell A1 when another cell is currently active in a spreadsheet. (2*10=20)

02.)

1. Find the octal equivalent of the hexadecimal number AB716.
 2. Convert the binary number 101101_2 into decimal.
 3. If the ASCII decimal value of the character 'n' is 110, write the ASCII values of the characters 'm' and 'p'.
 4. Piumi scored 74 marks in the first term exam for the subject of Information Technology. Write her score in Binary Coded Decimal (BCD) format.
 5. What is the total number of bits in 16 GB?(It is sufficient to express the answer as a power of two.)
- (2*5 =10 Marks)

03.) The “Rano” Computer Accessories Sales Company prepares its invoices using spreadsheet software. The following is a bill prepared by them. Answer the questions based on it:

	A	B	C	D	E	F	G	H
2								
3				Discount Rate			5%	
4		Rano Accessories						
						Total Price before Discount		
5		Item No	Qty	Description	Unit Price	Discount	Discount	Selling Price
6		D01	3	Mouse	Rs. 1,425.00	Rs. 4,275.00	Rs. 213.75	Rs. 4,061.25
7		D02	2	Head Phone	Rs. 3,600.00	Rs. 7,200.00	Rs. 360.00	Rs. 6,840.00
8		D03	3	Key Board	Rs. 2,700.00	Rs. 8,100.00	Rs. 405.00	Rs. 7,695.00
9		D04	1	Monitor - LCD	Rs. 14,000.00	Rs. 14,000.00	Rs. 700.00	Rs. 13,300.00
10		D05	1	Speaker	Rs. 2,950.00	Rs. 2,950.00	Rs. 147.50	Rs. 2,802.50
11		D06	2	Pen Drive 64 GB	Rs. 2,100.00	Rs. 4,200.00	Rs. 210.00	Rs. 3,990.00
12								
13				Amount of the Bill				Rs. 38,688.75

1. State the steps to display “Rs.” in front of the amounts in the “Discount” and “Price” columns.
2. Write the formula to record the Total Price before Discount of item D01 in cell F6.
3. Write the formula to calculate the discount for the Mouse in cell G6. (Assume the formula is to be copied to other cells as well.)
4. If the formula in cell G6 is copied up to G11, state the formula that appears in cell G8.
5. Write the function to calculate the total bill value in cell H13.

(2*5 = 10 Marks)

04.) Nuwani has downloaded a document from the internet for practicing word processing. A section of that document is shown below. She has also made some edits to it.

WORD PROCESSING

What you will learn or practice:

- Setting Margins
- Changing font size
- Changing alignment
- Using bold print
- Typing a paragraph with word wrap
- Spell checking
- Copy and paste

DIRECTIONS:

1. Open a Word document. Click on FILE- PAGE SET-UP. Change the margins to the following: top and bottom = 2 inches, left and right = 2 inches. Click on OK.
2. Change the font to Lucida Console, size 14 point, and type your name.
3. Change your name to bold print.
4. Center your name horizontally between the margins. (CENTER ALIGN)
5. Press the ENTER key once. Take OFF bold print.
6. Type Activity 3. Press the ENTER key twice.
7. Change the font to Times New Roman, size 12 point.
8. Change to LEFT ALIGN.
9. Type the paragraph below, with errors included, using word wrap (Do not hit enter at end of line). The computer may automatically correct some of your errors. That's ok. Hit ENTER when you are all done with the paragraph.

1. Write two examples of word processing software Nuwani may have used for this task.
2. For each label (A, B, C, D), write the tool used to make the corresponding change.

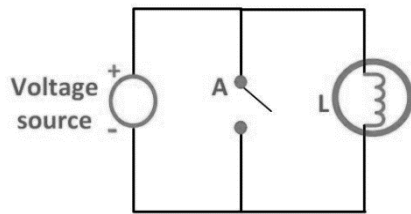
i  _____ ii  _____ iii  _____ iv  _____

3. What tool could Nuwani have used to change the word “DIRECTIONS” under label E to “Directions”?
4. The document edited by Nuwani was saved as “Activity3.docx”. Write the file name and the file extension.
5. State two special features unique to word processing software.

(2*5 = 10 Marks)

05.) The diagram below shows an electronic circuit:

1.



I. Name the logic gate represented by the given circuit.

II. Draw that logic gate.

III. Construct the truth table relevant to that logic gate.

IV. Name two compound logic gates.

(1*4 =4 Marks)

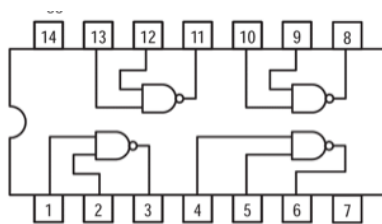
2.

I. Draw the Boolean circuit relevant to the Boolean expression $(A \cdot B + A' \cdot B)'$

II. Construct the truth table for the above Boolean expression.

(2*2 =4 Marks)

3. Consider the following Integrated



circuit. If pin 11 = 0, what should the values of pins 12 and 13 be?

(2 Marks)

06.)

1. Fill in the blanks in the following table with the appropriate word and its corresponding letter:

Generation	Hardware Technology
First	-----A-----
Second	-----B-----
Third	-----C-----
Fourth	-----D-----

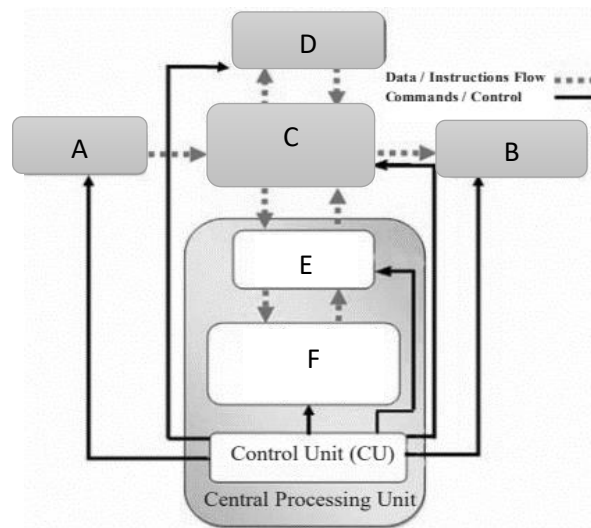
2. Choose the most suitable word from the brackets and write it along with the question number:
 - I. The thermal printer belongs to the printer category.
 - II. is an example of a optical media data storage device.
 - III. is an advantage of LED screens.
 - IV. A is used to establish connections between two or more computer networks.

(Options: hub, high cost, floppy disk, router, impact, Blu-ray disk, low power consumption, switch)

3. Mention a scenario in which each of the following transmission media is used:

- I. Coaxial cable
- II. Infrared rays
- III. Radio waves
- IV. Twisted pair cable

- 07.) The following diagram presents a general overview of the **Von Neumann architecture**. Answer the questions based on it.



1. Name the units labeled A, B, C, D, E, and F. (3 marks)
2. Provide two examples each for the units labeled A, B, and D. (3 marks)
3. Briefly describe the function of unit C. (2 marks)
4. The CPU is installed on which circuit? (1 mark)
5. Mention one security measure taken to protect the Central Processing Unit. (1 mark)