



University of Kelaniya

Center for Distance and Continuing Education

Bachelor of Arts (General) Degree First Examination (External)

2025-September (Repeat Exam)

Faculty of Science

Computer Literacy - COMP E 1014 – Paper II

Number of questions: 06

Number of pages: 04

Time: 03 hours

- ❖ Answer only five questions, including the first question.
- ❖ The use of calculators is not permitted.

01.

- i. What is an Intranet? Give two examples.
- ii. Write two examples each for input and output media.
- iii. Convert the decimal number 179 into a base-16 (hexadecimal) number. You must also show your working to obtain the answer.
- iv. Explain the type of **Hybrid Topology**.
- v. Convert **2.75 GB** into kB.
- vi. Name two methods of inputting an image into a computer.
- vii. Give three advantages of using computers.
- viii. Write down two advantages of storing files in USB flash drive (Flash Memory) when compared to storing them with on a DVD.
- ix. Explain the functions performed by **RAM** and **Cache memory** in a computer.
- x. Use a truth table to verify the followings.

a) $(A \cdot B)' = A' + B'$

b) $(A + B)' = A' \cdot B'$

02.

- i. Provide **two differences** between data and information in a comparative manner.
- ii. Explain **guided media** and **unguided media** in relation to data transmission.
- iii. State the **functions** and **classification** of “MODEM”.
- iv. Briefly explain of the purpose of using a **firewall**.
- v. Explain **half-duplex communication**.

(10 marks)

03.

Nuwan, who went to purchase a computer, was shown the following hardware specification sheet by the owner.

- * Processor 3.0 GHz
- * Motherboard – Intel 945
- * Casing ATX – Tower
- * Display LED 21
- * RAM 8 GB
- * VGA Card 1GB
- * Hard drive 2TB
- * DVD drive
- * Keyboard USB Mouse USB
- * Speaker 1000W
- * U.P.S. 1.2 kV
- * Dot matrix live printer (24 pin)

Answer the following questions based on the above specification sheet.

- i. From the above items, list the **input devices** and **output devices**.
- ii. Write down **two storage devices**.
- iii. Convert the RAM capacity into **kilobytes** and **megabytes**.
- iv. The display type is specified as **LED**. What type of displays were used before the introduction of LED displays?
- v. Explain the benefits of using a UPS.

(10 marks)

04.

- i. Draw the relevant **flowchart** for the following:
 - a. Input the age of a student, If it is **12 years or lower** display "**Child**".
 - b. If it is **between 13 and 19 years**, display "**Teenager**".
 - c. And if it is **19 years or above**, display "**Adult**".
- ii. Use a truth table to verify that the Boolean algebra equation $(A + B). C = A. C + B. C$ is true.
- iii. Explain the difference between **Cc** and **Bcc** in the address section of an email.
- iv. Define the **Memory Hierarchy**. Draw the relevant diagram.

(10 marks)

05.

At **Revatha Central College**, electronic spreadsheets are used to record the sale of food and beverage items of the school canteen. A discount is given for food and beverages purchased in bulk from this canteen. Shown below is the worksheet used for the sale of milk. When purchasing **100 or more milk packets**, a **5% discount** is given. The **price of one milk packet** is mentioned in cell **C2**, and the **discount** is mentioned in cell **C3**.

	A	B	C	D	E
1	Revatha Central College Canteen				
2	Price Per One Packet of Milk		Rs. 20.00		
3	Discount		5%		
4	Customer	Amount Purchased	Payment Outstanding	Discount Amount	Amount Paid
5	Parakum House	100	Rs. 2,000.00	Rs. 100.00	Rs. 1,900.00
6	Mahasen House	225	Rs. 4,500.00	Rs. 225.00	Rs. 4,275.00
7	Thisssa House	500	Rs. 10,000.00	Rs. 500.00	Rs. 9,500.00
8	Wijaya House	750	Rs. 15,000.00	Rs. 750.00	Rs. 14,250.00
9	Gemunu House	75	Rs. 1,500.00	Rs. 0.00	Rs. 1,500.00
10			Total Paid		Rs. 31,425.00

- i. Write the formula that should be entered into cell **C5** to calculate the amount payable for the milk packets purchased.
(When this formula is copied to the range **C6: C9**, the relevant values indicated in column C should be obtained.) (**Do not use column D** for the calculation.)
- ii. Using only cell references, write the formula that should be entered in cell **D5** to calculate the discount.
(When this formula is copied to the range **D6: D9**, the relevant values indicated in column D should be obtained.)
- iii. Using only cell references, write the formula that should be entered in cell **E5** to calculate the paid amount.
(This formula should also be copyable to the range **E6: E9**).
- iv. State **two methods** that can be used to calculate the **total amount paid** in cell **E10**.

(10 marks)

06.

Write short notes on **three** of the following.

- i. Describe **two health problems** faced by individuals who engage in computer-related activities for a long period of time.
- ii. Discuss the **social impact** of today's younger generation being addicted to the Internet.
- iii. Previously reserved only for science faculty students the subject of computer technology has now been opened to humanities and social sciences faculty students as well. Discuss this as a positive development.
- iv. Describe the **advantages** of the Sri Lankan Department of Examinations gradually switching its operations to a computer-based system.

(10 marks)