



*Let the mind manage the body  
Que l'esprit gère le corps*

**MAURITIUS  
EXAMINATIONS  
SYNDICATE**

**NCE 2024  
GRADE 9**

**INFORMATION AND  
COMMUNICATIONS TECHNOLOGY**

Subject code: N540

## INTRODUCTION

The NCE assessment in Information and Communications Technology (ICT) assesses skills and competencies acquired by candidates from Grade 7 to Grade 9/Grade 9+. Candidates are assessed on the learning objectives spelt out in the Teaching and Learning syllabus (MIE, 2016). The 2024 ICT assessment catered for students of all abilities, with different types of questions to allow each candidate to demonstrate the competencies that he/she has acquired after nine years of continuous schooling.

This report focuses on the performance of candidates in the 2024 ICT assessment. It highlights the difficulties which candidates encountered and suggests possible ways of improving future candidates' performance. Overall, this NCE ICT Examiners' report serves as a valuable tool for educators, students, and curriculum developers, providing insights into the assessment structure, common mistakes, student performance and learning gaps.

It is recommended to read this report in conjunction with the question paper for the assessment.

## PAPER OVERVIEW

The NCE ICT Assessment consists of two sections and 11 questions. The duration of the paper is 1 hour 45 minutes and carries a total of 100 marks. The paper is graded starting with items of low difficulty level to items requiring higher order thinking skills.

The breakdown of the paper is given in **Table 1**.

**Table 1** -Breakdown of the NCE ICT Assessment

| <b>Section</b> | <b>Questions</b> | <b>Marks</b> |
|----------------|------------------|--------------|
| A              | 1 to 5           | 50           |
| B              | 6 – 11           | 50           |

## THE ASSESSMENT OBJECTIVES

Three assessment objectives, namely knowledge and comprehension, application and analysis serve as a foundation to the design of the ICT Assessment.

### **AO1:** Knowledge and Comprehension (50%)

Questions assessing *knowledge and comprehension* evaluate the ability of candidates to recall concepts and facts related to ICT.

### **AO2:** Application (30%)

Questions assessing *application* focus on learners' ability to apply acquired knowledge and competencies in ICT. For example, candidates are assessed on their ability use web tools for e-discussions.

### **AO3:** Analysis (20%)

Questions assessing *reasoning* require candidates to make judgements and formulate appropriate strategies in solving problems in ICT.

## GENERAL COMMENTS

The difficulty level of the 2024 ICT assessment paper was comparable to that of 2023. The questions set in Section A, particularly the first few questions proved to be more accessible to most candidates. Item analysis indicates that objective-type questions such as multiple-choice questions, fill-in-the blanks and matching questions set in Section A of the assessment and requiring basic knowledge of facts and concepts were generally well attempted by candidates.

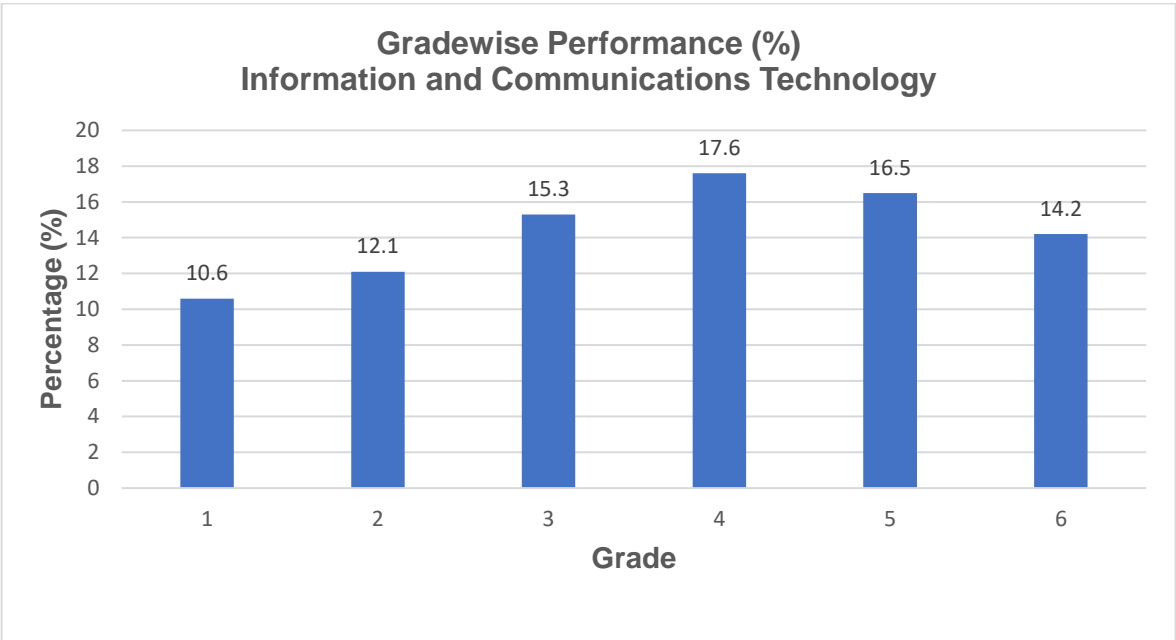
Section B, where candidates were assessed on concepts related to databases, spreadsheet and programming, proved to be more challenging.

The performance of candidates for the 2024 NCE assessment in ICT is encouraging with an overall pass rate of 86.3 % as detailed in **Table 2**.

**Table 2: Overall Pass Rate in ICT**

|                              | <b>Boys</b> | <b>Girls</b> |
|------------------------------|-------------|--------------|
| Percentage pass rate         | 82.6%       | 89.8%        |
| Overall Percentage pass rate | 86.3%       |              |

10846 candidates out of 12556 who were assessed for ICT in 2024 obtained Grade 6 or better in the subject. The grade wise performance of candidates for ICT is shown in **Figure 1**.



**Figure 1**

## KEY MESSAGES

1. Certain questions may require students to apply their knowledge from different topics/ chapters.
2. Candidates are advised to use appropriate technical terms when answering questions.
3. The following areas were particularly challenging to candidates.

### **A. Spreadsheet**

Candidates struggled to understand:

- formula, particularly those including functions such as IF or AVERAGE.
- the value returned by the COUNTIF function which is an integer value.

### **B. Databases**

- Candidates seemed unfamiliar with terms such as data type and report.
- Understanding the QBE grid and determining the output proved to be challenging for many candidates. Candidates had difficulty filling the QBE grid based on certain query requirements.

### **C. Practical problem solving and programming**

Candidates had difficulties in:

- understanding terms such as flowchart, flowlines, sequence and loop.
- analysing the loop and correctly determining the parts that were missing.

## SECTION A

### Specific Comments

#### Question 1

This question comprised 15 multiple choice questions. They were generally well-answered. They were set at the basic level assessing mainly knowledge and comprehension.

Parts (j), (m) and (o) proved to be particularly challenging for candidates of Grade 9+.

**Table 3** lists the answers to the items in Question 1.





**Table 3 – Answer key to the items in Question 1**

| Item Number | Answer   |  | Item Number | Answer   |
|-------------|----------|--|-------------|----------|
| (a)         | <b>B</b> |  | (i)         | <b>C</b> |
| (b)         | <b>B</b> |  | (j)         | <b>C</b> |
| (c)         | <b>A</b> |  | (k)         | <b>A</b> |
| (d)         | <b>C</b> |  | (l)         | <b>D</b> |
| (e)         | <b>B</b> |  | (m)         | <b>C</b> |
| (f)         | <b>D</b> |  | (n)         | <b>A</b> |
| (g)         | <b>B</b> |  | (o)         | <b>B</b> |
| (h)         | <b>C</b> |  |             |          |

The performance of candidates in question 1 was generally good for items c, e, f, k and m for which more than 80 % of the cohort opted for the answer key. The least well attempted items were d, g and i.

**Item (a)**

(a) Which one of the following is an **output** device?

|          |   |          |  |
|----------|---|----------|--|
| <b>A</b> |  | <b>B</b> |  |
|          | Touchpad  |          | Plotter  |
| <b>C</b> |  | <b>D</b> |  |
|          | Microphone  |          | Joystick   |

Nearly 60 % of the candidate population successfully identified **plotter** as an output device. However, option C-Microphone was a major distractor.

**Item (b)**

(b) How many bits make up a **byte**?

|          |         |          |        |
|----------|---------|----------|--------|
| <b>A</b> | 16 bits | <b>B</b> | 8 bits |
| <b>C</b> | 12 bits | <b>D</b> | 4 bits |

Around three quarters of the cohort opted for the answer key **B-8 bits**. Option D-4 bits was a strong distractor.

**Item (c)**



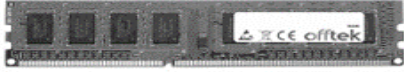

(c) Which component prevents the CPU from overheating?

- A** Fan
- B** Sound card
- C** Graphics card
- D** Motherboard

Above 80 % of the candidate population could identify the answer key **A-Fan** as being the component which prevents the CPU from overheating.

**Item (d)**

(d) Which one of the following **stores** data temporarily?

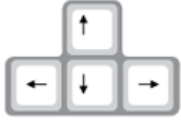
|          |  |          |  |
|----------|--|----------|--|
| <b>A</b> | <br>ROM | <b>B</b> | <br>Hard Disk |
| <b>C</b> | <br>RAM | <b>D</b> | <br>CD ROM    |


Item (d) was one of the least well attempted MCQ as only around 45 % of the cohort chose the answer key **C-RAM**. Many candidates failed to understand that ROM, Hard Disk and CD-ROM store data permanently and not temporarily.





**Item (g)**

(g) In a PowerPoint presentation, which **icon** illustrates "starting the slide show from the **first slide**"?

**A** 

**B** 

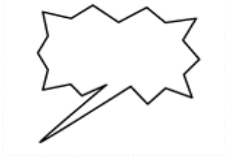
**C** 

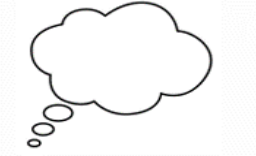
**D** 

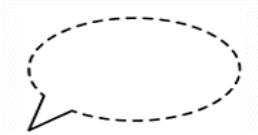
Item (g) proved to be challenging for many candidates. Only around 40 % of the cohort chose the correct option **B** which represents the icon illustrating 'starting the slide show from the first slide' in a PowerPoint presentation. The main distractor was option **C**.

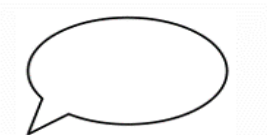
**Item (h)**

(h) Which **speech balloon** is used when you want your character to tell a secret?

**A**   
Sound Balloon

**B**   
Thought Balloon





**C**   
Whisper Balloon

**D**   
General Speech Balloon

This item was correctly answered by many candidates who opted for the key **C-Whisper Balloon**. However, approximately 10 % of the candidates incorrectly opted for option D-General Speech Balloon. It seems that candidates were confused by the similar shapes of the speech balloon in Options C and D.

**Item (i)**


(i) Which **component** is used to connect two **LANs**?

|          |   |          |   |
|----------|---|----------|---|
| <b>A</b> |  | <b>B</b> |   |
|          | Switch  |          | Server  |
| <b>C</b> |  | <b>D</b> |  |
|          | Router  |          | Cable   |

Item (i) was the least well answered MCQ. Around three quarters of the candidate population failed to understand that a **router** is required to connect two LANs. Nearly 45 % of the cohort wrongly chose option D-Cable.

**Item (j)**

(j) Which **hardware component** is shown below?




|          |                        |          |                        |
|----------|------------------------|----------|------------------------|
| <b>A</b> | Internal Memory        | <b>B</b> | Hard-disk              |
| <b>C</b> | Network Interface Card | <b>D</b> | Wireless Fidelity Card |

Item (j) was problematic for nearly 40 % of the candidates who could not identify the picture of the hardware component as being **Network Interface Card**. Nearly one quarter of the cohort wrongly opted for A-Internal Memory.

**Item (k)**

(k) Which health problem may be caused when a **mouse** is used for a long time?







A   Repetitive strain injury      B   Headache  
C   Eye strain                      D   Back pain

Above 80 % of the candidate population were able to identify the correct health problem as **Repetitive strain injury**. It was noted that some candidates incorrectly gave **C-Eye-strain** as answer.

**Item (l)**

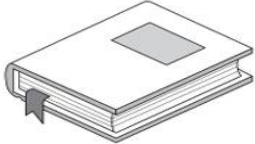



(l) Which of the following is a popular **videoconferencing** software?

A  Twitter      B  Wiki  
C  Facebook      D  Skype

This item was well attempted by many candidates who were able to identify option **D- Skype** as a popular video conferencing software. However, option C-Facebook was a major distractor.

**Item (m)**

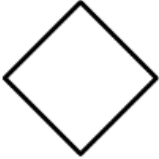
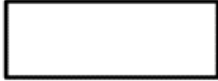

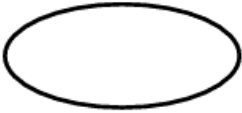
(m) Which one of the following is required for e-learning?

|   |  |
|---|--|
| <p><b>A</b></p>  <p>Book</p>   | <p><b>B</b></p>  <p>Calculator</p> |
| <p><b>C</b></p>  <p>Laptop</p> | <p><b>D</b></p>  <p>Whiteboard</p> |

Item (m) was the third well answered MCQ. Above 80 % of the candidate population chose the answer key **C-Laptop**. These candidates easily recognised 'laptop' as a device required for e-learning.

**Item (n)**

(n) Which **one** of the following is the symbol for "Decision Box" in a flowchart?

|   |   |
|---|---|
| <p><b>A</b></p>  | <p><b>B</b></p>  |
| <p><b>C</b></p>  | <p><b>D</b></p>   |

Many candidates could not differentiate between the flowchart symbols and thus could not recognise option **A** as the symbol for 'Decision Box'. Option C- the input/output symbol was a major distractor.

**Item (o)**

(o) Which feature in MS Word allows the word "DRAFT" to be inserted in a document, as shown below?

The internet  
contains a  
wide variety  
of information

DRAFT

**A** Page Borders                      **B** Watermark  
**C** Ruler                                      **D** Page Color

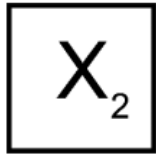
Around three quarters of the cohort were able to identify option **B-Watermark** as the answer key. However, option A-Page Borders was a strong distractor.

**Question 2**


**Part 2(a)**

For this part question, candidates were required to label 5 icons using the given terms. Only around one quarter of the cohort scored full marks. However, around half of the candidate population were able to score at least 3 out of 5 marks.

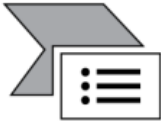
The expected answers are given below.




Subscript




Autosum



SmartArt



Font Color



Strikethrough

The following observations were made:

- Many candidates confused between **superscript** and **subscript**.
- **AutoSum** and **SmartArt** icons were the least well attempted labelling items.
- Most candidates correctly identified the **Font Color** icon. This was the most well answered item.

### Part 2(b)

This was a fill-in-the-blank question with the given terms. Most candidates fared well in question 2(b). Nearly 60 % of the cohort scored full marks and around 87 % scored at least 3 out of 5 marks.

Part (i), was the least well answered item, with the incorrect answer '**mesh**' being the most common mistake.

Part (iii) and (iv) were the most popular among the candidates. This demonstrates that candidates are familiar to the terms "Wifi" and 'virus'.

The expected answers are given below.

- |       |   |
|-------|---|
| (i)   | In a ..... <b>bus</b> ..... topology every node is connected to a single cable. |
| (ii)  | An example of a free operating system is ..... <b>linux</b> .....               |
| (iii) | Mobile phones can be connected to the internet using ..... <b>Wifi</b> .....    |
| (iv)  | A ..... <b>Virus</b> ..... is a software that can slow down a computer.         |
| (v)   | The purpose of a ..... <b>backup</b> ..... is to keep data secure.              |

### Question 3

Candidates were expected to tick either True or False next to each of the given statements. The remarks and expected answers are given in **Table 4**.

**Table 4 - Expected answers and remarks for Question 3**

|    |  | True | False | Remarks  |
|----|--|------|-------|--|
| b) | A laser printer is slower than an inkjet printer.                        |      | F     | This item was correctly answered by nearly 70 % of the candidates.   |
| c) | Page break helps to separate content between pages.                      | T    |       | Item (c) was the second most well attempted item.  |
| d) | A conditional formatting rule cannot be removed in Excel.                |      | F     | This item was fairly well answered.  |
| e) | In a PowerPoint Presentation, you cannot use more than one slide master. |      | F     | Nearly one quarter of the candidate population did not score any mark for this item. They failed to understand that a presentation may include more than one slide master. |
| f) | In a star topology, nodes are connected to a central computer.           | T    |       | Item (f) was correctly answered by nearly 80 % of the cohort.  |
| g) | A firewall can be a hardware or a software.                              | T    |       | This item was fairly well answered. However, nearly 30 % of the candidates failed to understand that a firewall can be both a hardware and a software.                     |
| h) | Personal information should be shared with everybody.                    |      | F     | This was the most well attempted item of question 3 with nearly 95 % of the cohort opting for the correct answer.  |
| i) | In a flowchart, flowlines indicate the movement of data.                 | T    |       | This item was generally well answered.   |
| j) | The report wizard is located in the Home Tab in MS Access.               |      | F     | Item (j) on report wizard was the second least well answered True / False item.  |
| k) | Python is an example of a database software.                             |      | F     | This was the least well answered item as more than half of the cohort were not aware that Python is not a database software.   |

#### Question 4

##### Part 4(a)- Choosing a suitable hardware device from a given list

Choose a suitable **hardware device** from the list above that can be used to perform the following tasks:

An example is given.

|       |   |                    |
|-------|---|--------------------|
| (i)   | <b>Rapidly enters data in public places</b> | <b>Touchscreen</b> |
| (ii)  | Stores large volumes of data in smartphones | SSD                |
| (iii) | Stores pictures in digital cameras          | Memory Card        |
| (iv)  | Creates real world objects                  | 3D Printer         |
| (v)   | Magnifies images generated by a computer    | Projector          |

[4]

Part 4(a) was generally well answered. More than 80 % of the candidate population scored full marks and nearly 95 % scored at least 2 out of 4 marks. A handful of candidates did not attempt this part question. Item(ii) was the most popular, while item (iv) was the least popular.

**Part 4(b) - Match each term in Column A to the correct statement in Column B.**

In this part question, candidates had to match each term from **Column A** to the correct statement in **Column B**.

| Column A |                   | Column B |   |
|----------|-------------------|----------|---|
| (i)      | Mailing list      | 1        | can produce digital images of hardcopy documents.           |
| (ii)     | Memory Management | 2        | is an example of a search engine.                           |
| (iii)    | Hacking           | 3        | is an example of text-based communication.                  |
| (iv)     | Scanner           | 4        | is an online journal that displays the latest posts first.  |
| (v)      | Blog              | 5        | <b>is used to perform mail merge in a word document.</b>    |
| (vi)     | Google            | 6        | deals with the loading and running of application software. |
| (vii)    | Chat              | 7        | is an example of an online forum.                           |
|          |                   | 8        | refers to gaining unauthorised access to a computer system. |

The expected answers are given in **Table 5**.

**Table 5 - Expected answers for Question 4(b)**

| (i)                     | (ii) | (iii) | (iv) | (v) | (vi) | (vii) |
|-------------------------|------|-------|------|-----|------|-------|
| 5<br>(Given as example) | 6    | 8     | 1    | 4   | 2    | 3     |

Part 4(b) was generally well answered. The following observations were made:

- Around 55 % of the cohort scored full mark.
- Nearly 90 % of candidates scored at least 3 out of 6 marks.
- Item (vii)-**Chat** was the most well-attempted matching item, with above 90 % correct responses.
- Item (v)-**Blog** was the least well-attempted matching item, with around 75 % correct responses.

## Question 5

### Part 5(a)





For this part question, candidates were required to name the icons from a list of given terms.

(a) Using the **terms** given below, name the following **icons**.

An example is given.

|                       |             |                     |               |                   |
|-----------------------|-------------|---------------------|---------------|-------------------|
| <b>Format Painter</b> | <b>Sort</b> | <b>Slide Master</b> | <b>Filter</b> | <b>Notes Page</b> |
|-----------------------|-------------|---------------------|---------------|-------------------|

|   |                         |
|---|-------------------------|
|  | <b>Filter</b><br>.....  |
|  | Notes Page<br>.....     |
|  | Sort<br>.....           |
|  | Format Painter<br>..... |

[3]

This part question was fairly well-answered. Approximately 65 % of the candidate population scored full marks and nearly 93 % scored at least 2 out of 3 marks.

The most well-attempted item for question 5(a) was the icon-**Format Painter**. However, the least well-attempted item was the icon-**Sort** as many candidates incorrectly chose Slide Master as answer.

**Part 5(b)**

Part 5(b) proved to be quite challenging for many candidates. Around half of the cohort were able to score the full 2 marks and nearly 40 % of the cohort did not score any mark. Many candidates incorrectly ticked the precautions to be taken instead of threats (though set in bold in the question).

The expected answers for question 5(b) is shown below.

|   |                                     |
|---|-------------------------------------|
| (b) The following statements concern <b>Data Security</b> . |                                     |
| Tick (✓) <b>two threats</b> to data security.               |                                     |
| Using strong passwords                                      | <input type="checkbox"/>            |
| Accidental loss of data by deletion                         | <input checked="" type="checkbox"/> |
| Data destroyed by flood                                     | <input checked="" type="checkbox"/> |
| Using an updated anti-virus                                 | <input type="checkbox"/>            |

## SECTION B

### Question 6

This question was based on the specifications of a computer system as shown below.

**View basic information about your computer**

Windows edition \_\_\_\_\_  
Windows 10 Home Single Language  
© 2017 Microsoft Corporation. All rights reserved.

System \_\_\_\_\_

Processor: Intel(R) Core (TM) i5-7200U CPU @ 2.50GHz  
Installed memory (RAM): 8.00 GB (7.87 GB usable)  
System type: 64-bit Operating System, x64-based processor  
Pen and Touch: No pen or Touch Input is available for this Display

Computer name, domain, and workgroup settings \_\_\_\_\_

Computer name: laptop013  
Computer description:  
Workgroup: WORKGROUP

Windows activation \_\_\_\_\_  
Windows is activated Read the Microsoft Software License Terms  
Product ID: 00327-30523-29858-AAOEM

### Part (a)

Candidates were required to mention the **name** of the computer. 9 out of 10 candidates could correctly identified “**laptop013**” as the correct answer.

### Part (b)

(b) Tick (✓) the correct **memory size** of the computer.

8 GB       16 GB       32 GB

This part was correctly answered by more than 90 % of the cohort who ticked the correct box with the answer **8 GB**.

**Part (c)**

|  |     |
|--|-----|
| (c) What is the <b>model</b> and <b>speed</b> of the processor used in the computer? |     |
| <b>Model</b> .....   | [1] |
| <b>Speed</b> .....   | [1] |

Approximately, half of the candidate population could not identify the model of the processor- **Intel Core i5-7200U**. A handful of candidates gave the full processor specifications.

The speed of the processor- **2.50 GHz** was correctly identified by around 70 % of the cohort.

**Part (d)**

This part required candidates to give the name of the operating system installed on the computer. More than half of the cohort could not give the correct name of the operating system-**Windows 10 Home**. The most common wrong answers were, “64-bit Operating system” and “x64 based-processor”.

## Question 7

### Part (a)

For Part 7(a), candidates were expected to indicate the order of the steps to be taken to insert a Table of Contents. This proved to be challenging for many candidates. Nearly 65 % of the cohort did not score any mark and only around 15 % scored full marks.

| Step  | Order    |
|---|----------|
| Click Table of Contents on the Reference Tab.                 |          |
| Choose one of the types of Table of Contents available.       |          |
| <b>Format document using Heading Style found on Home Tab.</b> | <b>1</b> |
| Place cursor where you want the Table of Contents to appear.  |          |

[3]

The expected order is given below.

| Step  | Order    |
|---|----------|
| Click Table of Contents on the Reference Tab.                 | 3        |
| Choose one of the types of Table of Contents available.       | 4        |
| <b>Format document using Heading Style found on Home Tab.</b> | <b>1</b> |
| Place cursor where you want the Table of Contents to appear.  | 2        |

**Part (b)**

In Part 7(b), a letter with merged fields and a table showing the list of mail merge recipients were given as shown below.

(b) A letter is to be sent to a group of people. **Figure 1** shows the letter with the merged fields.

12 May 2024  
 <<Address>>  
 <<Town>>

**SALSA DANCE GROUP**

Dear <<First Name>> <<Surname>>  
 You are invited to the opening of our dance club on Sunday 30 June 2024 at 19 00.  
 You will perform in the category <<Category>> on that day.  
 Yours faithfully  
 Chaya  
 Secretary

**Figure 1: Letter with merged fields**

**Table 1** shows the list of mail merge recipients.

**Table 1: List of Mail Merge Recipients**

|   | Surname | First Name | Category  | Address        | Town        |
|---|---------|------------|-----------|----------------|-------------|
|   | Pierre  | Laura      | Ballet    | Royal Road     | Curepipe    |
| ✓ | Khan    | Parwez     | Fusion    | Branch Road    | Rose Hill   |
|   | Ram     | Shreya     | Bollywood | Hillcrest Road | Black River |

Candidates had to complete the letter for the recipient -**Khan Parwez** as indicated by a tick (✓) in the table to show the result of the mail merge. Nearly 75 % of the cohort scored full marks. 8 out of 10 candidates could score at least 2 out of 3 marks. Candidates lost marks where they interchanged positions of the fields or referred to the wrong row from the table.

The expected result of the mail merge is shown below.

12 May 2024  
Branch Road  
Rose Hill

**SALSA DANCE GROUP**

Dear Parwez Khan  
 You are invited to the opening of our dance club on Sunday 30 June at 19.00.  
 You will perform in the category Fusion on that day.  
 Yours faithfully  
 Chaya  
 Secretary

### Question 8

Spreadsheet remains a challenging topic for many candidates who struggled to answer these questions. Many candidates do not seem familiar and lack confidence while dealing with spreadsheet.

Candidates were expected to answer questions, based on a given spreadsheet which showed the data on **sales of perfume bottles (\$)** as shown below.

|   | A                  | B              | C               | D            | E                    | F                    |
|---|--------------------|----------------|-----------------|--------------|----------------------|----------------------|
| 1 | <b>Brand</b>       | <b>January</b> | <b>February</b> | <b>March</b> | <b>Average Sales</b> | <b>Below Average</b> |
| 2 |                    | \$             | \$              | \$           | \$                   |                      |
| 3 | Dior               | 2700           | 3500            | 4000         | 3400                 | Above                |
| 4 | Chanel             | 2000           | 2200            | 2100         | 2100                 | Below                |
| 5 | Yves Saint Laurent | 2500           | 3000            | 3200         | 2900                 | Above                |
| 6 | Gucci              | 1800           | 1900            | 2000         | 1900                 | Below                |
| 7 | Dolce              | 2300           | 1700            | 2600         | 2200                 | Below                |
| 8 | <b>TOTAL SALES</b> | 11300          | 12300           | 13900        |                      |                      |

Only 1 out of 10 candidates could score full marks. Moreover, more than half of the candidate population scored less than 5 out of 10 marks. Many candidates did not answer all parts of this question.

#### Part 8(a)

|  |
|--|
| Write down the <b>cell address</b> which contains the following information: |
| (i) <b>Sales of Chanel</b> perfume bottles in January: .....                 |
| (ii) <b>Average sales of Gucci</b> perfume bottles: .....                    |

Part 8(a) required candidates to give the cells addresses. Approximately 60 % of the cohort attempted part (i) well, whilst 65 % scored the mark for part(ii). 3 out of 10 candidates were confused between cell addresses and cell values and could not score any marks.

The expected answers were:

- **B4** for part(a)(i) -Sales of Chanel perfume in January and
- **E6** for part(a)(ii) -Average sales of Gucci perfume bottles.

**Part 8(b)**

(b) Tick (✓) the correct formula that has been used in cell **C8** to calculate the **Total Sales** for the month of **February**.

= C3 \* C7       = SUM (C3:C7)       = C3 – B7

[1]

Part 8(b) was correctly answered by most candidates who attempted this question. The expected answer was: **=SUM (C3:C7)**

**Part 8(c)**

(c) Write the **formula** that can be used in cell **E3** to find the **Average Sales** of **Dior** perfume bottles.

.....

[2]

This part question proved to be challenging for nearly 45 % of the candidate population who were not able to score any mark. Though, the key elements of the question were highlighted in bold, many candidates wrongly used the SUM () function instead of the Average() function.

Only 3 out of 10 candidates could give the correct answer. The expected answer was **=Average (B3:D3)** but other valid alternatives were also awarded.

**Part 8(d)**

The **Shop Average Sales = \$ 2500.**

When the Average Sales of a perfume bottle is **less than** the Shop Average Sales, **Below** should be displayed.

Otherwise **Above** should be displayed.

Complete the following formula to be used in **cell F3.**

= IF (E3 < ....., "Below", .....)

This was the least well-answered item of question 8. 6 out of 10 candidates did not score any mark. Many candidates incorrectly filled the condition as they failed to understand that the value was already given.

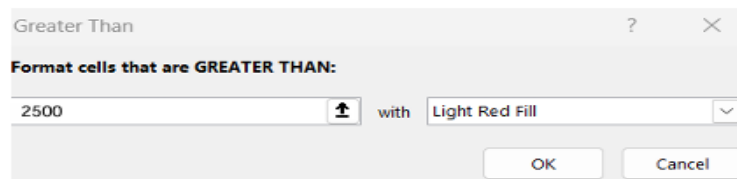
Only around 18 % of the candidate population were able to understand and correlate the details of the question with the spreadsheet, thereby scoring full marks.

The expected answer is given below.

= IF (E3 < **2500**, "Below", **"Above"**)

**Part 8(e)**

(e) Conditional formatting is applied to cell E3:E7 as follows:



Name the **cells** that will be formatted.

.....

[2]

Part 8(e) was not well-attempted by many candidates. 55 % of the cohort did not score any marks. However, 4 out of 10 candidates scored full marks. The expected answers were **E3** and **E5**.

### Part 8(f)

(f) The formula `= COUNTIF(F3:F7,"Above")` is used in cell F8.

What will be the output?

..... [1]

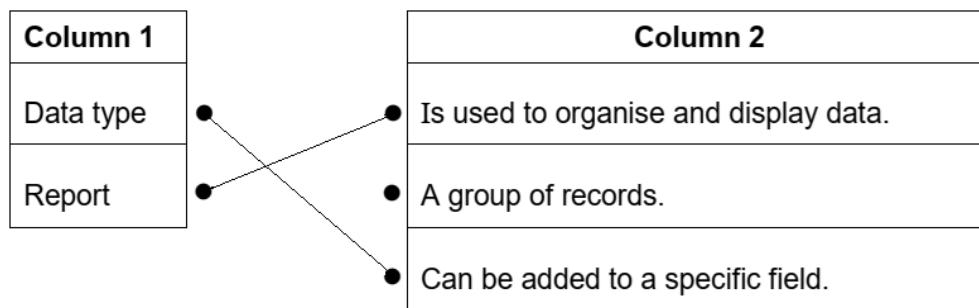
Part 8(f) was not well-attempted by nearly 70 % of the cohort. Many candidates did not pay attention to the COUNTIF () function, which returns an integer value. Many candidates wrongly provided cell addresses or cell values as their answers. The expected answer was **2**.

### Question 9

This question aimed at assessing the candidates' ability to recall the theory related to databases and understanding of the Query by Example (QBE) grid. This part proved to be difficult on the whole, suggesting that for many candidates, database is complex to understand. Many candidates either attempted only part (a) or did not attempt the whole question. Very few candidates scored full marks for this question.

#### Part 9(a)

Many candidates could not recall and match the terms Data type and Report to the correct statements. Nearly 35 % of the cohort was unable to score any marks. However, around 40 % of the candidate population scored full marks. The expected answers are shown below



**Part 9b**

For part 9(b), candidates had to refer to the database table **GAMES** as shown below.

(b) A database table **GAMES** was set up as shown below.

| GAME ID | TITLE         | RATING | TYPE      | PRICE (€) |
|---------|---------------|--------|-----------|-----------|
| Z12     | BOMB JACK     | 5      | Platform  | 50        |
| C34     | GALAXIAN      | 4      | Shoot     | 65        |
| B76     | TEMPLE TERROR | 5      | Adventure | 60        |
| A45     | HERO QUEST    | 3      | Fighting  | 80        |
| Q64     | MANIC MINER   | 4      | Platform  | 30        |

**Part 9(b)(i)**

(i) Which **data type** is used for the field **RATING**?

.....

[1]

This part question was not correctly answered by nearly 65 % of the candidate population who failed to provide the expected answer **Numeric/Number**.

**Part b(ii)**

(ii) A query by example grid is shown below.

|                 |                                     |                          |
|-----------------|-------------------------------------|--------------------------|
| <b>Field</b>    | GAME ID                             | RATING                   |
| <b>Table</b>    | GAMES                               | GAMES                    |
| <b>Sort</b>     | ASCENDING                           |                          |
| <b>Show</b>     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <b>Criteria</b> |                                     | >4                       |
| <b>Or</b>       |                                     |                          |

Show what the **output** would be.

.....

.....

.....

[3]

Only few candidates were able to analyse the QBE grid and provide correct answers for the expected output. 7 out of 10 candidates failed to score any marks. However, around one quarter of the cohort were able to score at least 2 out of 3 marks and a handful of candidates managed to score full marks. The expected answers for this part was **B76** and **Z12**.

Many candidates did not pay attention to the following:

- The output had to be sorted.
- Only the data in the GAME ID field was to be displayed as part of the output.
- The records / data to be selected is based on the criteria using the RATING field.

**Part b(iii)**

This part question was generally not well-attempted. Only 17 % of the candidates scored full marks and around 66 % did not score any marks. Many candidates failed to understand that the “name of games” referred to the “TITLE” field in the given database. The criteria for the query was “Platform”. Candidates incorrectly gave “Name of game” as field name in the grid.

The expected answer is given below.

(iii) Complete the **query by example** grid below to select and show the **name of games** of type Platform.

|                 |                                     |                          |
|-----------------|-------------------------------------|--------------------------|
| <b>Field</b>    | TITLE                               | TYPE                     |
| <b>Table</b>    | GAMES                               | GAMES                    |
| <b>Sort</b>     |                                     |                          |
| <b>Show</b>     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <b>Criteria</b> |                                     | = 'Platform'             |
| <b>Or</b>       |                                     |                          |

[3]

**Question 10**

This was a knowledge and comprehension question, evaluating the ability of candidates to recall the concept of ‘internet banking’ and facts related to it. It was the most popular question in **Section B**. 6 out of 10 candidates were able to score at least 4 out of 9 marks.

**Part 10(a)**

This part question asked the candidates to explain what is meant by internet banking.

|  |
|--|
| (a) Explain what is meant by <b>internet banking</b> .<br>.....<br>..... [2] |
|--|

Performance in this open-ended question was satisfactory. 4 out of 10 candidates scored full marks and nearly 68 % of the cohort scored at least 1 out of 2 marks.

However, some candidates could not score any marks. Many of them focussed their explanation on ‘e-commerce’ instead of ‘internet banking’. They failed to understand that ‘internet banking ‘is about performing banking transactions online (using computers / mobile phones).

**Part 10(b)**

Candidates were required to state two transactions that can be done using internet banking.

|  |
|--|
| (b) State <b>two</b> transactions that can be done using internet banking.<br>1. ....<br>2. .... [2] |
|--|

Approximately 35 % of the cohort correctly gave two transactions that are carried out using internet banking. However, slightly more than one quarter of the candidate population scored only 1 mark.

Expected answers were: Open an account/ Transfer money/ Do online payments / Check account balance/ Apply for loans/ Update contact information (among others).

**Part 10(c)**

(c) Banks usually provide E-banking websites to their customers.

State **two** pieces of information that customers will need in order to access their accounts through an E-banking website.

1. ....

2. .... [2]

Only 1 out of 10 candidates were able to provide two correct pieces of information that customers need to access their accounts through an E-banking website and they scored full marks. Nearly half of the cohort provided only one correct piece of information and scored 1 out of 2 marks. Many incorrect answers included card number or/and account number among others. The expected answers were **User ID** and **Password**.

**Part 10(d)**

(d) Give **two** benefits of internet banking for customers.

1. ....

2. .... [2]

This part was satisfactorily answered as nearly 43 % of cohort scored full marks and three quarters scored at least 1 out of 2 marks. However, it was noted that many candidates copied the answers from part (b) instead of providing answers such as; 24/7 services / Cost -effective/ Environment- friendly/Secure transactions/ Convenience/ Instant notifications.

**Part 10 (e)**

(e) State **one** possible drawback of internet banking for a bank.

..... [1]

This part question was fairly attempted. Half of the cohort were able to score. The most common answer was related to the risk of 'hacking', though, other valid answers were accepted.

### Question 11

Over the years, it was found that questions related to flowcharts and programming are problematic for many candidates. Many could not recall concepts related to flowchart and did not show a good understanding of loops in Python. Some candidates did not attempt the whole question. A handful of candidates attempted only parts (a) and (c).

#### Part 11(a)

This fill in the blanks question was fairly attempted. Around 40 % of the cohort scored full marks. However, nearly 15 % of the candidate population could not score any marks. Many candidates confused between the terms “flowchart” and “flowline” for parts (i) and (ii). For part (iii), “loop” was often given as an incorrect answer.

- (i) A **flowchart** ..... is a diagram that shows the steps to solve a problem.
- (ii) A **flowline** ..... connects one symbol to another.
- (iii) Steps in a **sequence** ..... are executed one after the other from first to the last.

#### Part 11(b)

This part required the candidate to complete a program written in Python.

(b) Complete the **Python program** to display the sentence “The weather is windy.” **seven times**.

```
>>> count = 0
>>> while count < ..... :
    Print ( ' ..... ' )
    count = ..... + .....
```

[3]

The key elements of this part question were:

- Display the sentence “The weather is windy.”
- The above sentence is to display 7 times.

The most common mistakes were

- Inability of candidates to complete loop condition correctly
- Increment count - Many incorrect answers included:
  - `count = 6 + 1`
  - `count = 0 + 1`

1 out of 10 candidates were able to score full marks. However, one third of the cohort failed to score any mark. The second statement was the most well attempted item whereas the third statement was the least well attempted item of question 11(b).

The expected answers are shown below.

```
>>> count = 0
>>> while count < .....7..... :
    Print ( ' .....The weather is windy...... ' )
    count = .....count..... + .....1.....
```

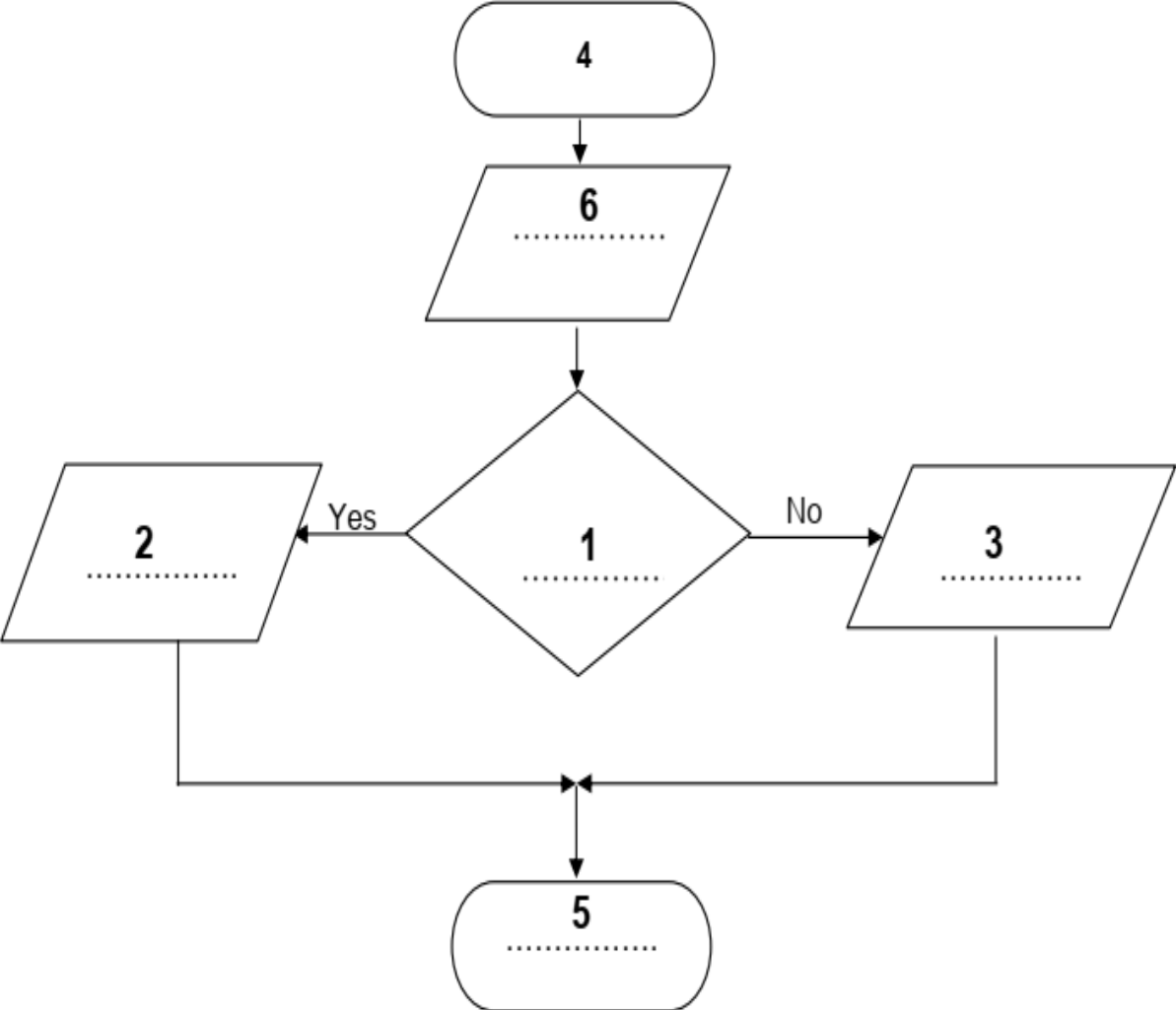
Valid alternative answers were considered, and marks were allocated accordingly.

### Part 11(c)

In this part question, candidates were required to complete the given flowchart by inserting the **missing statements** using the appropriate **number**.

Nearly 62 % of the candidate population were able to score full marks. Moreover, around three quarters of the cohort scored at least 3 out of 5 marks. It was observed that some candidates lost marks due to incorrect statement of the decision symbol. It was also noted that some candidates ignored the fact that the start symbol was already labelled as 4 and started their flowchart as from the input symbol. Many candidates scored the 1 mark for correctly identifying label 5 (END).

A completed flowchart is provided below.



**Conclusions**

To improve performance in ICT, more emphasis should be laid on topics such as Spreadsheet, Databases and Programming where candidates are continuously demonstrating difficulties. Students should be encouraged to practice more questions in both Sections A and B. Furthermore, they should be able to identify icons and their related purposes in different application programs.