



Index Number: .....

# NATIONAL CERTIFICATE OF EDUCATION

2023

## INFORMATION AND COMMUNICATIONS TECHNOLOGY (N540)

Candidates answer on the Question Paper.

**TIME: 1 HOUR 45 MINUTES**

### INSTRUCTIONS TO CANDIDATES

1. Write your index number in the space provided above.
2. Write in dark blue or black ink. Do not use correction fluid.
3. You may use a soft pencil for any diagram, graph or rough working.
4. Any rough working should be done in this booklet.
5. Do NOT use calculators.
6. Answer **ALL** questions.
7. This document consists of **11** questions printed on **22** pages, numbered **2** to **23**.
8. The number of marks is given in brackets [ ] at the end of each question or part question.
9. The total marks for this paper is **100**.

For Examiners' use													
Question No.	1	2	3	4	5	6	7	8	9	10	11	Total	Signature
Examiner													
Team Leader													
CE/ACE													

## SECTION A

### Question 1 (15 marks)

Circle the letter corresponding to the correct answer. Each item carries one mark.

(a) Which device is used to produce a **hard copy** of a document?

A



Mouse

B



Monitor

C



Scanner

D



Printer

(b) Which type of **microcomputer** is shown in the picture?

A Desktop computer

B Smartphone

C Tablet PC

D Laptop computer

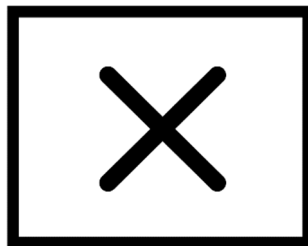


(c) Which **device** is shown in the picture below?



- A Speaker
- B Plotter
- C Headphone
- D Video projector

(d) Which **button** is shown below?



- A Close
- B Minimise
- C Maximise
- D Restore

- (e) Which **secondary storage device** is shown in the picture below?



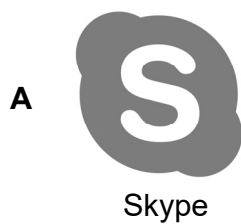
- A Compact disc
  - B Memory card
  - C Pendrive
  - D Hard disc drive
- (f) Study the date given below.

29 **March** 2022

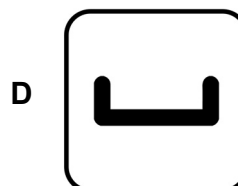
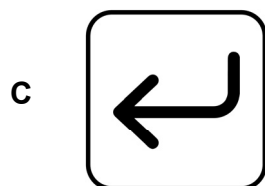
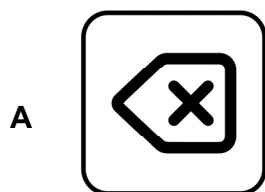
The word 'March' is formatted in .....

- A italics
  - B underline
  - C bold and italics
  - D bold and underline
- (g) **Backup** means to ..... an original document.
- A delete
  - B modify
  - C keep a copy of
  - D print a copy of

(h) Which of the following is a **search engine**?



(i) Which one is the **Enter Key** on a keyboard?

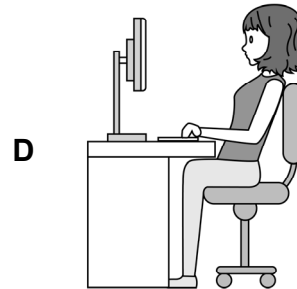
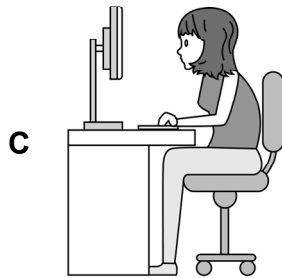
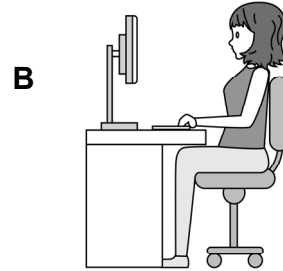


(j) Which **speech balloon** is shown below?

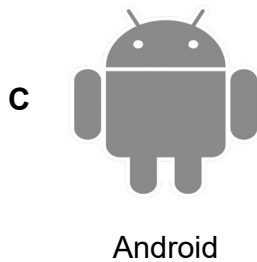
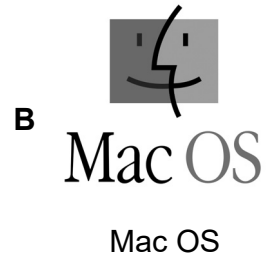


- A Sound balloon
- B Thought balloon
- C Secret balloon
- D General Speech balloon

(k) Which diagram shows the correct **sitting posture** at a computer?



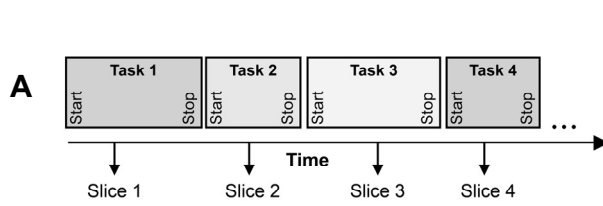
(l) Which one of the following is an **operating system** used with **smartphones**?



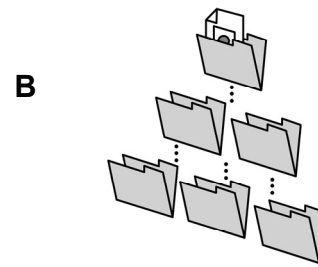
(m) Which one of the following is an example of a **computer crime**?

- A** Playing online games
- B** Printing a document
- C** Writing an email to a friend
- D** Hacking a computer

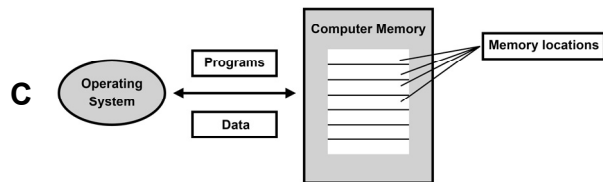
(n) Which one of the following helps to prevent **unauthorised access** to a computer?



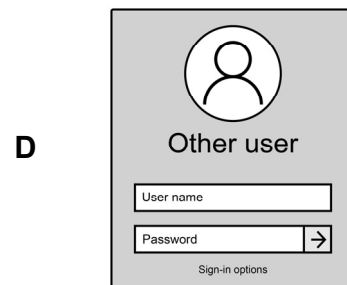
Processor Management



File Management

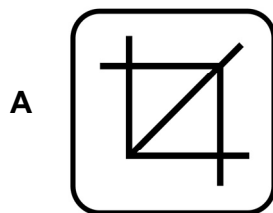


Memory Management

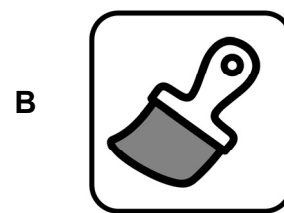


System Security Management

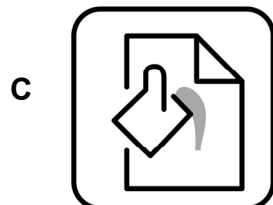
(o) Which tab would you use to remove **unwanted parts** of a picture?



Crop



Format Painter



Page Colour

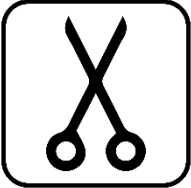






Watermark

**Question 2 (10 marks)**

- (a) Name the following **icons** used in Word Processing. Choose from the list of words given below.

<b>Print</b>	<b>WordArt</b>	<b>Cut</b>
<b>Copy</b>	<b>Paste</b>	<b>Save</b>

	.....
	.....
	.....
	.....
	.....

[5]



- (b) Fill in the blanks with the **correct term** from the given list.

<b>mailing list</b>	<b>power</b>	<b>eye strain</b>
<b>network</b>	<b>Hertz</b>	<b>volume</b>

- (i) If a computer freezes, you should switch off the .....
- (ii) If you cannot hear the sound, check the ..... level.
- (iii) The speed of a computer is measured in .....
- (iv) Staring at a computer screen for long hours can lead to .....
- (v) The ..... contains information like names, addresses and phone numbers.

[5]

**Question 3 (10 marks)**

Tick (✓) **True** or **False** next to each of the statements below. An example is given.

		True	False
(a)	A mouse is an output device.		✓
(b)	Wifi means wireless fidelity.		
(c)	Page border adds colour to a page.		
(d)	Food and drinks are allowed in a computer lab.		
(e)	A handout is a hardcopy of PowerPoint slides.		
(f)	Online forums are websites used for debates.		
(g)	Any information collected should be kept safe.		
(h)	It is ethical to use someone else's password.		
(i)	A spreadsheet is used to create charts.		
(j)	A paper jam prevents a printer from working properly.		
(k)	One byte is equal to 4 bits.		






E

TL

CE

### Question 4 (10 marks)

- (a) Classify the **hardware devices** given below as Input, Output or Storage devices. Tick (✓) the appropriate column. An example is given.

		Input Device	Output Device	Storage Device
(i)	 Monitor		✓	
(ii)	 Digital Camera			
(iii)	 Joystick			
(iv)	 Blu-ray Disc			
(v)	 3D Printer			

[4]

- (b) Match each term in **Column A** to its correct definition or description in **Column B**. Write your answers in the **answer grid** provided below. An example is given.

Column A	
(i)	Terminal
(ii)	Software
(iii)	Keyboard
(iv)	Repetitive Strain Injury
(v)	Virus
(vi)	Intranet
(vii)	Temperature Sensor

Column B	
1	is used to enter text.
2	causes pain in wrists and fingers.
3	is a private network.
4	is the name given to computer programs.
5	<b>is a computer connected to a network.</b>
6	is used in automatic cooling systems.
7	connects networks across the world.
8	is a software that can damage a computer.

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)
5						


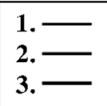

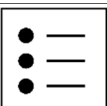
[6]

E
TL
CE

### Question 5 (5 marks)

(a) Using the words given below, name the following icons. An example is given.

Centre	Bullets	Justify	Align left	Numbering
--------	---------	---------	------------	-----------

	..... <b>Justify</b> .....
	.....
	.....
	.....

[3]

(b) John has accidentally deleted a file. He wants to restore it from the **recycle bin**.



Using 1, 2 and 3, put the following steps in the **correct order** to help John restore the file.

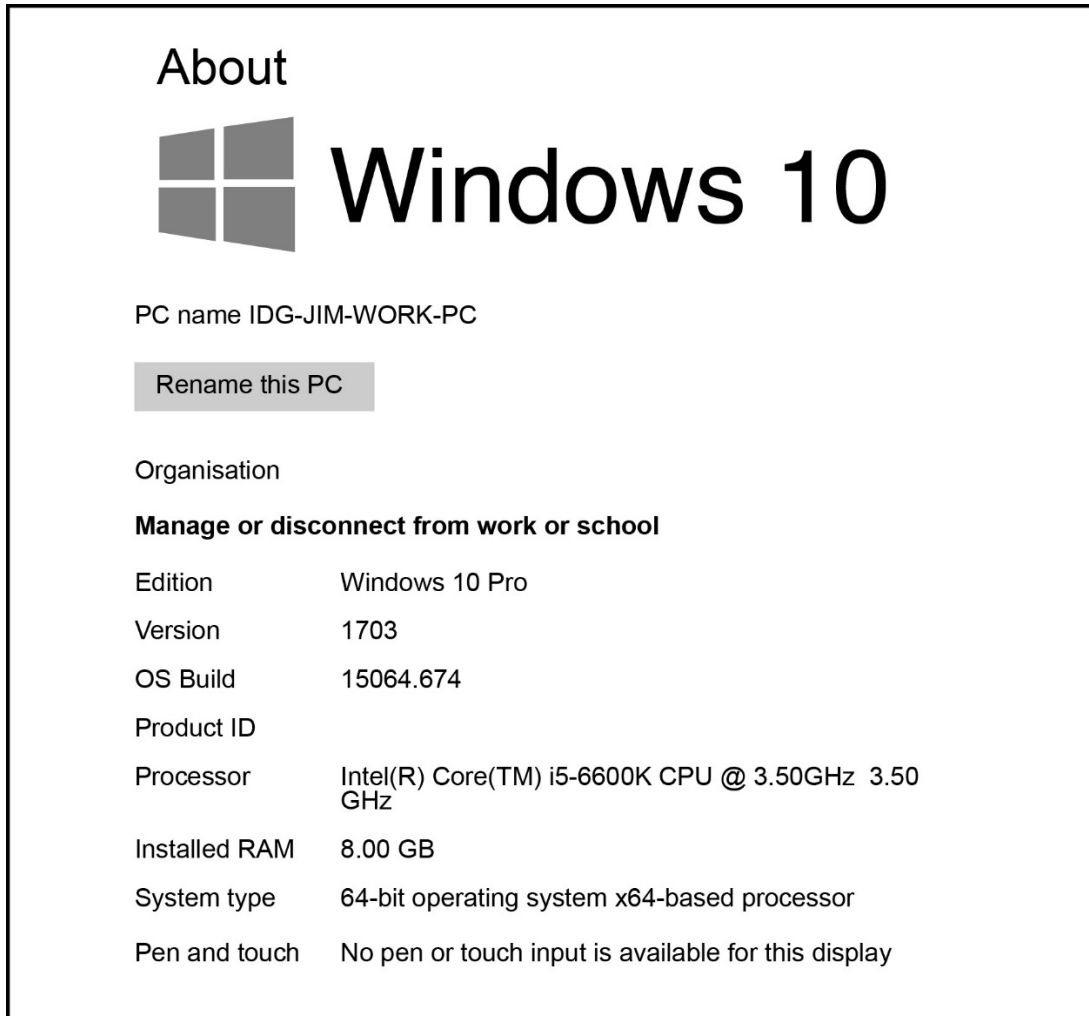
Step	Order
Click on restore.	
Open recycle bin.	
Right click on file.	

[2]

## SECTION B

### Question 6 (5 marks)

The specifications for a computer system are provided below.



- (a) Tick (✓) the correct **processor model** used in this computer system.

Intel Core i3 ☐ Intel Core i5 ☐ AMD Pro ☐

[1]

- (b) What is the **speed** of the processor?

..... [1]

(c) What is the **memory size** of the computer system?

..... [1]

(d) Which **edition** of the operating system is used in this computer system?

.....[1]

(e) Give **one function** of an operating system.

..... [1]

E
TL
CE

### Question 7 (8 marks)

(a) The following sentences refer to the features of Microsoft Word.

Fill in each blank with the **correct term** from the list given below.

view	layout	page break	section break
------	--------	------------	---------------

(i) A ..... is used to separate contents between pages.

(ii) The ..... tab is used to change the orientation of a page from portrait to landscape.

(iii) A ..... splits pages of a document into parts allowing one to use different formatting on each page.

[3]

- (b) A table of contents of a textbook is shown below.

Contents		
<b>Chapter 1.0</b>	<b>Introduction .....</b>	<b>2</b>
<b>Chapter 2.0</b>	<b>Project Requirements .....</b>	<b>7</b>
<b>Chapter 3.0</b>	<b>The History of Grammar .....</b>	<b>12</b>
<b>Chapter 4.0</b>	<b>Parts of Speech .....</b>	<b>18</b>
4.1	Nouns .....	21
4.2	Verbs .....	24
4.3	Adjectives .....	27
4.4	Adverbs .....	31
<b>Chapter 5.0</b>	<b>Sentences .....</b>	<b>35</b>
5.1	Complex Sentences .....	39
5.2	Compound Sentences .....	45
<b>Chapter 6.0</b>	<b>Paragraphs .....</b>	<b>51</b>
6.1	Descriptive .....	56
6.2	Expository .....	60
6.3	Narrative .....	65
6.4	Persuasive .....	71
<b>Chapter 7.0</b>	<b>Conclusion .....</b>	<b>76</b>

- (i) Tick (✓) the correct **tab** which is used to insert the table of contents?

View ☐ References ☐ Mailings ☐ [1]

- (ii) On which page does **Chapter 3** start?

..... [1]

- (iii) How many chapters are there in this textbook?

..... [1]

- (iv) What is the name of the chapter that starts on **page 51**?

..... [1]

- (v) What is the name of the **sub-chapter 6.3**?

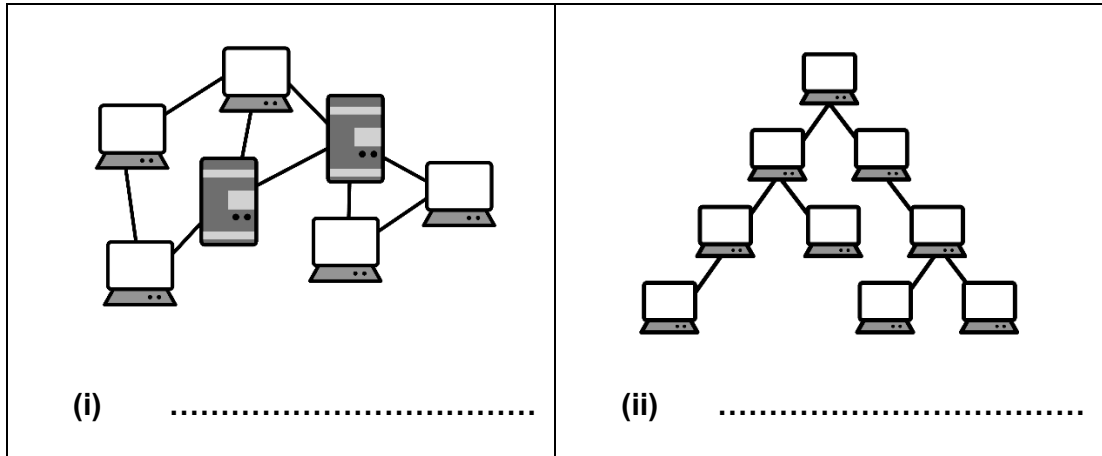
..... [1]

E
TL
CE



### Question 8 (9 marks)

- (a) Name each **type of network topology** shown in the diagram below.



[2]

- (b) Tina uses **social networking** to communicate with her friends.

- (i) Explain the term **social networking**.

.....  
 ..... [1]

- (ii) Give two examples of social networking websites.

1. ....  
 2. .... [2]

- (iii) Give two ways to **communicate** on a social networking website.

1. ....  
 2. .... [2]

- (c) Give **two** safe practices that should be adopted when using a social networking website.

1. ....  
 2. .... [2]

E

TL

CE

### Question 9 (10 marks)

The spreadsheet below shows the data about the sales of JMS Candy Shop.

Refer to the spreadsheet and answer the questions that follow.

	A	B	C	D	E	F
1	<b>JMS Candy Shop</b>					
2	<b>Item</b>	<b>Cost Price</b>	<b>Selling Price</b>	<b>Profit Per Item</b>	<b>Number in stock</b>	<b>Reorder stock</b>
3	Bounty	26.50	28.50	2.00	167	NO
4	Twix	18.00	22.00	4.00	145	NO
5	Galaxy	22.50	25.00	2.50	32	YES
6	KitKat	32.00	32.50	0.50	159	NO
7	Mars	15.50	19.50	4.00	12	YES
8						
9					<b>Items to be reordered</b>	

(a) Write down which **cell** contains the following information:

(i) Cost Price of Twix: .....

(ii) Selling Price of Bounty: .....

[2]

(b) Tick (✓) the correct formula that has been used in cell **D3** to calculate the **Profit Per Item** on **Bounty**.

= B3 / C3 ☐      = MIN (B3:C3) ☐      = C3 – B3 ☐

[1]

(c) Write the formula that can be used in cell D8 to calculate the total **Profit Per Item**.

..... [2]

(d) When the number of a particular item is **less than 50**, the shop needs to reorder the stock.

Complete the following formula to be used in **cell F3** to find out whether there is a need to reorder stock or not.

= IF (E3 < 50, ....., ....., .....)

[2]

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

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

..... [2]

- (f) The formula `= COUNTIF (F3:F7,"YES")` is used in cell F9.

What will be the output?

..... [1]

**Question 10 (8 marks)**

- (a) State whether each of the following statements on databases is **True** or **False**.  
An example is given.

(i) Retrieving information from a computerised database is difficult. **False**

(ii) A primary key is a field which uniquely identifies a record. ....

(iii) Each row of a database table represents a record. ....

[2]

- (b) The table below shows the computerised database that stores details on the departure of flights.

The **FLIGHTS** table is shown below.

FLIGHT_ID	FLIGHT_NAME	DEPARTURE	LOCATION	DESTINATION
MK-054	Air Mauritius	04:00	Mumbai	Mauritius
MK-001	Air Mauritius	08:00	Mauritius	Rodrigues
AS-102	Air Austral	09:00	St Denis	Mauritius
SP-205	Singapore Airlines	23:00	Mauritius	Singapore
EM-234	Fly Emirates	23:00	Dubai	Mauritius
BA-458	British Airways	07:00	Mauritius	London

- (i) How many fields are there in the FLIGHTS table?

..... [1]

- (ii) The following search condition was entered using a **query by example** grid.

<b>Field</b>	FLIGHT_ID	DEPARTURE
<b>Table</b>	FLIGHTS	FLIGHTS
<b>Sort</b>	ASCENDING	
<b>Show</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Criteria</b>		= 23:00
<b>Or</b>		

Show what the **output** would be.

.....  
 .....  
 ..... [3]

- (iii) Complete the **query by example** grid below to select and show the **name of flights** located in **Mauritius**.

<b>Field</b>	FLIGHT_NAME	LOCATION
<b>Table</b>	FLIGHTS	FLIGHTS
<b>Sort</b>		
<b>Show</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Criteria</b>		
<b>Or</b>		

[2]

E

TL

CE

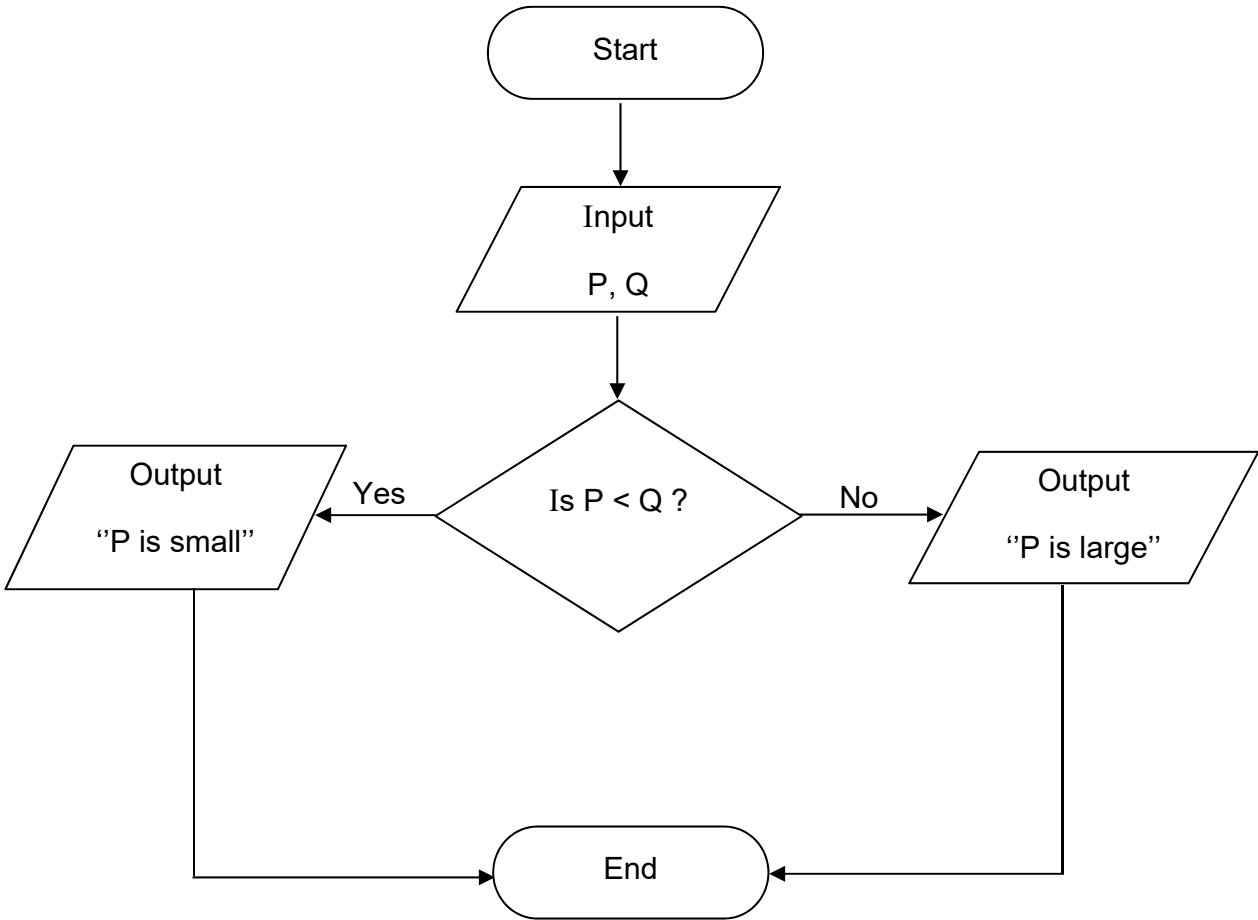
**Question 11 (10 marks)**

(a) Match the term in **Column 1** to the description in **Column 2**.

Column 1		Column 2
Loop	●	● Statements executed in the order in which they occur.
Selection	●	● Statements are executed multiple times.
Sequence	●	● Statements that are not run in a program.
		● Statements executed only if a certain condition is met.

[2]

(b) Study the flowchart below carefully.



For the sets of input given below, **dry run** the flowchart.

P	Q	Output
18	6	
6	14	
12	8	

[3]

(c) Read the following Python commands

```

Line 1 >>> totalprice = 2010
Line 2 >>> if totalprice > 2000:
Line 3 >>> print('You get a discount')
Line 4 >>> else:
Line 5 >>> print('You do not get a discount')

```

(i) What will be the output if the above Python code is run?

..... [2]

(ii) At **Line 1**, rewrite the command that will allow a user to enter the value for total price from the keyboard.

.....  
 ..... [3]

**END OF PAPER**

**BLANK PAGE**