

**BASIC EDUCATION CERTIFICATE EXAMINATION
FOR SCHOOL AND PRIVATE CANDIDATES, 2026**

COMPUTING 2

FINAL MARKING SCHEME

INSTRUCTIONS

Candidates are expected to answer **only four** questions in all, including **question 1**.

QUESTION 1

(a)

- (i) Local Area Network/ LAN/ Wireless Local Area Network/ WLAN
[1 mark]
- (ii) Hardware components required to setup the network include:

1. Router
2. Switch
3. Network Cable/ UTP CAT 5/ UTP CAT 6/ Fibre Cable ; *Cable*
4. Network Interface Card, etc.
5. Node (*computer*) ; *computer*
6. Hub
7. Patch Panel etc.

[Any 2 x 1 mark each = 2 x 1 = 2 marks]

- (b) Features of Microsoft PowerPoint that the club would use to make the presentation engaging for the visitors include:

- (i) Animation
- (ii) Transitions
- (iii) Images/Graphics
- (iv) Videos/Embedded videos
- (v) Sound/Sound effects
- (vi) Design themes/themes
- (vii) WordArt
- (viii) Shapes etc.

[Any 2 x 1 mark each = 2 x 1 = 2 marks]

- (c) Microsoft Publisher visual elements that will make the flyer attractive and informative include:

- (i) Clip Art/Images
- (ii) Text boxes
- (iii) WordArt
- (iv) Shapes
- (v) Borders
- (vi) Lines
- (vii) Colour schemes

- (f) Functions of the given components used in robot construction include:
- (i) **Gears**
 - (a) Converts rotary motion into linear motion
 - (b) Slows down or makes the robot moves faster
 - (ii) **Grippers**
 - (a) They are used to pick up, hold, move, and manipulate objects
 - (iii) **Motors**
 - (a) They make the robot moves in a specified direction
- [2 marks for each correct function = 2 x 3 = 6 marks]**

QUESTION 2

(a) **Generation of Computers**

This refers to the specific stage in the evolution of computer technology marked by the fundamental shift in hardware and software that made computers smaller, faster, cheaper, and more efficient.

[3 marks]

(b) File management practices include:

- (i) Create folders
- (ii) Use of appropriate file/folder naming convention
- (iii) Archiving of old files
- (iv) Delete unnecessary files
- (v) Organise folders by hierarchy

[Any 3 x 1 mark each = 3 x 1 = 3 marks]

(c) Student experiencing headache, dry, and blurry eyes may suffer from:

- (i) Computer Vision Syndrome (CVS)/Digital Eye Strain

[1 mark]

(ii) **Computer Vision Syndrome/Digital Eye Strain**

This is a group of eye and vision problems from prolong use of computers, tablets, mobile phones, causing symptoms like blurry vision, dry eyes, headaches, and eye irritation.

[2 marks]

(d) The most appropriate output devices are:

- (i) Graphing Plotter/Plotter
- (ii) Multimedia Projector/Projector/Smart Board/Large Screen TV ✓
- (iii) Pico Projector/Portable Projector/Desktop Monitor

[1 mark each = 3 marks]

QUESTION 3

(a)

(i) Change case

[1 mark]

(ii) Steps to follow to apply this change is:

1. Select the entire/whole texts in the title BASIC EDUCATION CERTIFICATE EXAMINATION
2. Click on the Home Tab on the Ribbon
3. On the Font group, click on the button labelled **Aa** (Change Case)
4. From the drop-down menu, select and click on "Capitalise Each Word"/ "Title Case".

[1 mark for each correct step = 1 x 4 = 4 marks]**Alternatively**

1. Select the entire/whole texts in the title BASIC EDUCATION CERTIFICATE EXAMINATION
2. Press the keyboard shortcut keys **Shift + F3** to toggle through the text cases
3. Release fingers after achieving the desire text case (Capitalise Each Word/Title Case)

[1 mark for each correct step = 1 x 3 + 1 = 4 marks]

(b) Advantages of using pre-design template in Desktop publishing include:

- (i) It saves time because the layout, colour scheme, and font choices are already professionally designed
- (ii) It ensures professional and consistent look without requiring advanced design skills
- (iii) It includes placeholder texts and images that can be easily replaced with personal content
- (iv) It makes it easy for beginners to create professional document by providing a pre-set structure
- (v) Reduces error, etc.

[Any 2 x 2 marks each = 2 x 2 = 4 marks]

(c) Marks of students in an examination entered in Microsoft Excel worksheet:

(i) = A2 + B2 + C2

(ii) = Average (A2 : C2)

(iii) =

$$+ A_2 + B_2 + C_2$$

$$= \text{AVG}(A_2 : C_2) = \text{AVERAGE}(A_2, C_2)$$

[1 mark each = 1 x 3 = 3 marks]

QUESTION 4

(a) Main types of networks used include:

- (i) Personal Area Network (PAN)
- (ii) Wireless Local Area Network (WLAN)

[1 mark each = 1 x 2 = 2 marks]

(b) Sharing multiple digital photos:

- (i) Facebook/YouTube live/Google Meet/Tumblr/Flickr/SpiimPiin/GroupFlow/Lomography/Bandwagon/Discord

[1 mark]

(ii) Reasons for choosing the particular social media platform include:

1. For sharing detailed content
2. For discussion purpose
3. Appropriate for event organisation
4. Appropriate forum for conversation, etc.

[Any 3 x 1 mark each = 3 x 1 = 3 marks]

(c) Methods of protecting data against threats include:

- (i) Passwords
- (ii) Anti-virus
- (iii) Regular software updates
- (iv) Firewalls
- (v) Data backups, etc.

[Any 2 x 1 mark each = 2 x 1 = 2 marks]

(d) Specific actions to take to improve search for better information include:

- (i) Use more specific keywords instead of just "sharks"
- (ii) Use quotation marks for exact phrases
- (iii) Look for reliable website domains
- (iv) Use search filters
- (v) Use search operators

[Any 2 x 2 marks each = 2 x 2 = 4 marks]

QUESTION 5

(a) Loop / looping

[1 mark]

(b) Considering the expression for the girl:

$$\text{Total Expenses} = 12 \times \text{Gh}\text{¢}200.00 + \text{Gh}\text{¢}150.00 + 7 \times \text{Gh}\text{¢}23.00$$

Using computer operator precedence;

First, compute the multiplication

$$12 \times 200.00 = 2400.00$$

$$7 \times 23.00 = 161.00$$

Then, perform the addition:

$$2400.00 + 150.00 + 161.00 = 2711.00$$

$$\text{Therefore, } 12 \times \text{Gh}\text{¢}200.00 + \text{Gh}\text{¢}150.00 + 7 \times \text{Gh}\text{¢}23.00 = \underline{2711.00}$$

[1 mark for each correct step = 1 x 4 = 4 marks]

(c) Main components needed to help the robotic arm handle both heavy and delicate objects safely include:

- (i) Sensor
- (ii) Controller
- (iii) Gripper/End-effector
- (iv) Actuators

[Any 2 x 1 mark each = 2 x 1 = 2 marks]

(d)

(i) **Artificial Intelligence**

This is a technology that enables computers and machines to simulate/mimic human learning, comprehension, problem solving, decision making, creativity, and autonomy.

[3 marks]

(ii) Application areas of artificial intelligence include:

1. Machine learning
2. Artificial Neural Networks
3. Virtual Reality
4. Augmented Reality
5. Mixed Reality
6. Gamification
7. Deep learning
8. Data mining, etc.

[Any 2 x 1 mark each = 2 x 1 = 2 marks]

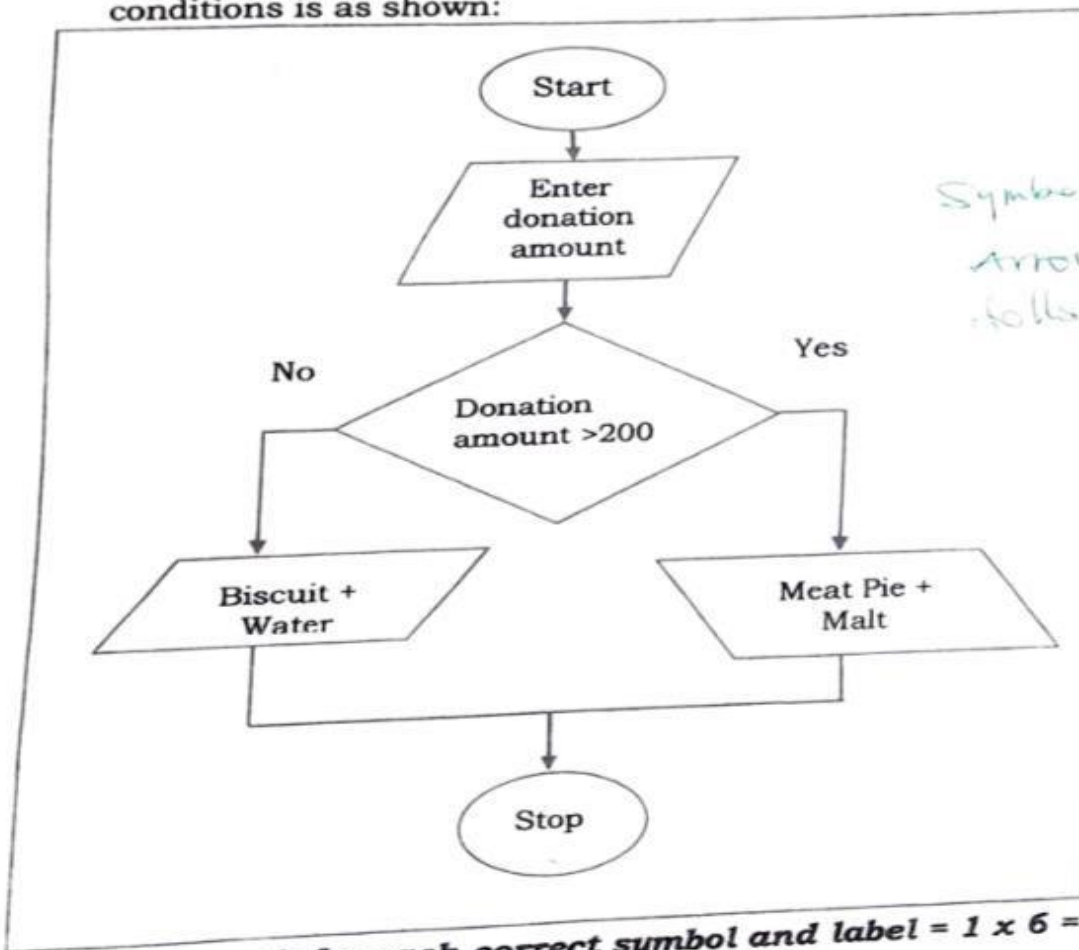
- (viii) Layout Guides and Ruler
 - (ix) Page Layout and Background
 - (x) Typography and Text Effect, etc. *(Bold, italics, underline)*
- [Any 2 x 1 mark each = 2 x 1 = 2 marks]**

(d) Algorithm for setting up the projector is:

1. Start/ Begin *(1 mark)*
 2. Connect the projector to the power source
 3. Connect the projector to the computer using VGA/HDMI cable
 4. Press the power button on the projector to turn it on
 5. Stop/ End *(1 mark)*
- (Body 3 marks)*

[1 mark for each correct step = 1 x 5 steps = 5 marks]

(e) The flowchart for serving a snack at the event based on the given conditions is as shown:



*Symbol and label
Arrows must
follow to score*

[1 mark for each correct symbol and label = 1 x 6 = 6 marks]