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
4. Network Interface Card, etc.
5. Node
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

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(viii) Layout Guides and Ruler
(ix) Page Layout and Background
(x) Typography and Text Effect, etc. (Bold, italics, one)

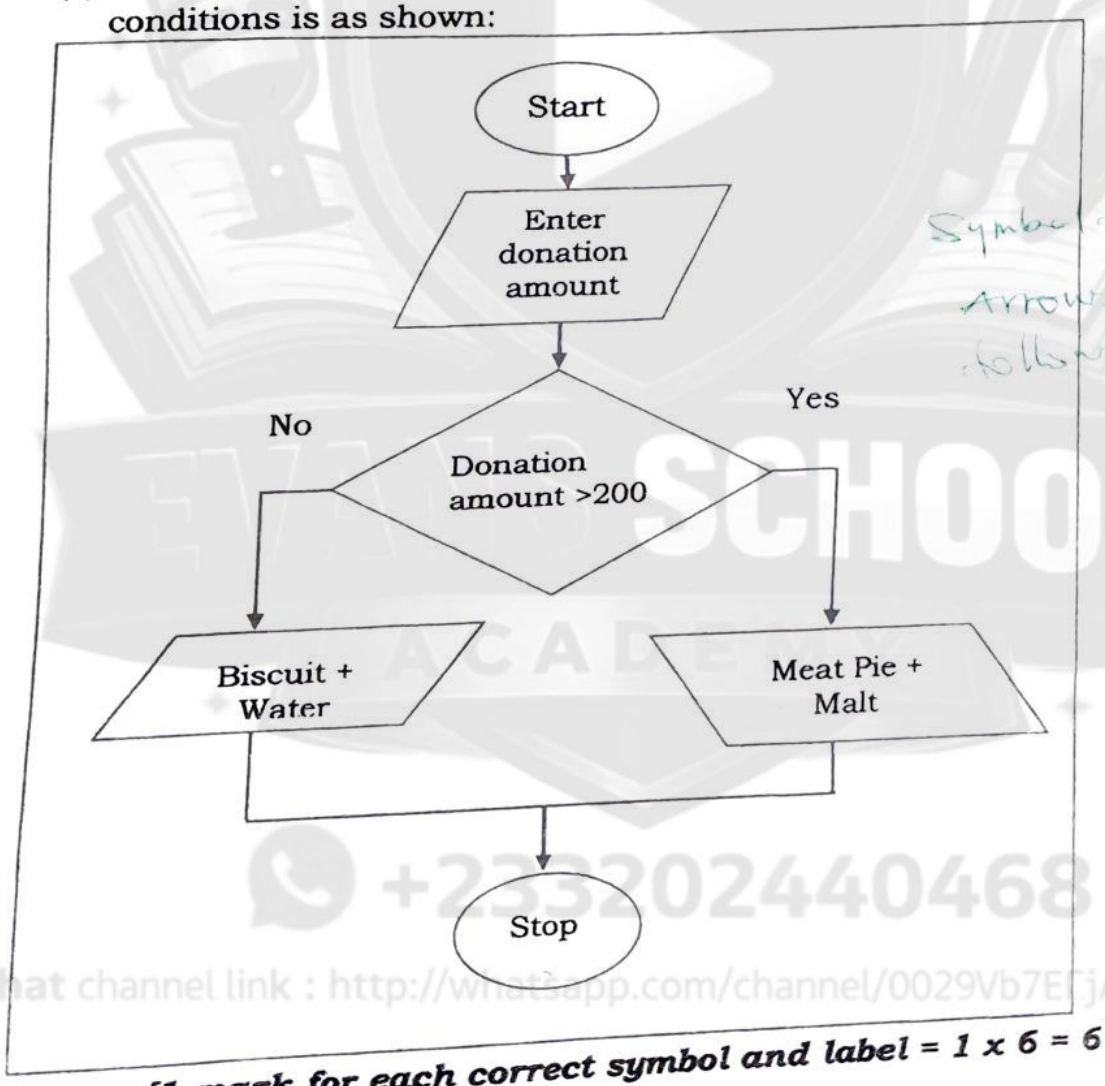
[Any 2 x 1 mark each = 2 x 1 = 2 marks]

(d) Algorithm for setting up the projector is:

1. Start/ Begin (1 mark)
2. Connect the projector to the power source (Body 3 marks)
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)

[1 mark for each correct step = 1x 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
follows to score

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

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(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]

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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 + A2 + B2 + C2

(ii) = Average (A2 : C2) = AVG(A2:C2) = Average(A2, C2)

(iii) =

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

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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]

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QUESTION 5

(a) Loop / looping

[1 mark]

(b) Considering the expression for the girl:
Total Expenses = 12 x Gh¢200.00 + Gh¢150.00 + 7 x Gh¢23.00
Using computer operator precedence;

First, compute the multiplication
12 x 200.00 = 2400.00
7 x 23.00 = 161.00

Then, perform the addition:
2400.00 + 150.00 + 161.00 = 2711.00
Therefore, 12 x Gh¢200.00 + Gh¢150.00 + 7 x Gh¢23.00 = 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]

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