

**BECE**

**2024**

**COMPUTING 2 & 1**

**Essay and Objective**

**2 & 1**

**THE WEST AFRICAN EXAMINATION COUNCIL  
GHANA**

**Basic Education Certificate Examination**

**COMPUTING**

ESSAY  
[60 marks]

This paper is in **two** sections: **A** and **B**. Answer **Question 1** in **Section A** and any other **three** questions in **Section B**.

Answer **all** the questions in the space provided in this question paper. At the end of the examination, you should submit the **entire** question paper to the invigilator.

Any candidate who tears off any part of the question paper will be **severely** penalized.

Whether you answer all the questions in this paper or not, hand in the **entire** question paper to the invigilator.

Credit will be given for clarity of expression and orderly presentation of material.

SECTION A  
[24 marks]

Answer **Question 1**.  
[Compulsory]

- 1. **Figure 1** shows computer users in a school’s computer laboratory. Study the figure carefully and use it to answer questions 1(a) to 1(g).

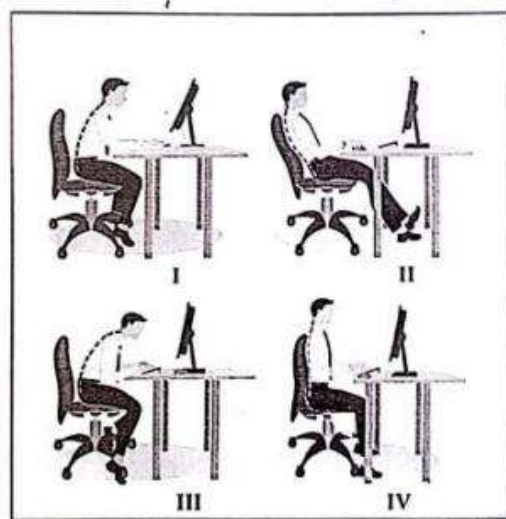


Figure 1

- (a) Which of the users has assumed the **correct** sitting posture?

.....  
[2 marks]

- (b) Prolonged use of the computer is associated with health-related problems. Suggest **two** possible safety measures the users should adopt to minimize workstation risks.

(i) .....

(ii) .....

[4 marks]

(c) The users were tasked to produce a ten page document using Microsoft Word. Outline the steps to be taken by the users to set the entire ten-page document to 2.0 line spacing.

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

[4 marks]

(d) The users were to type a report using Microsoft Word to be presented in class. User **I** typed 10 pages within 3 hours, user **II** typed 8 pages within 4 hours, user **III** typed 5 pages within 6 hours and user **IV** typed 6 pages within 2 hours.

Suggest **two** Microsoft Excel chart types that will be **most** appropriate to show the relationship between the number of pages each user typed and the time spent in typing.

(i) .....

(ii) .....

[2 marks]

(e) The users have been using their computers as standalone. State **two** benefits they will derive when their computers are networked.

(i) .....

(ii) .....

[4 marks]

(f) As a networking consultant, suggest **two** network topologies that could be used to network the computers for the users.

(i) .....

(ii) .....

[2 marks]

(g) The following activities were given to each user to type using Microsoft Word. They were to use Microsoft Publisher to produce a flyer with the typed document to be displayed on the notice



SECTION B

[36 marks]

Answer **three** questions **only** from this section

2. (a) Describe the *processor* of a computer to colleagues in your class.

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

[3 marks]

Study **Figure 2** carefully and use it to answer questions **2(b)** and **2(c)**



Figure 2

- (b) Write the name of the image shown in Figure 2.

.....

[2 marks]

- (c) Describe to your colleagues, how the image shown in Figure 2 is accessed for information.

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

[4 marks]

- (d) File extension is very important in naming a file. List **three** file extensions to be presented in the next computing class.

(i) .....

- (ii) .....
- (iii) ..... [3 marks]

3. (a) The head teacher of ABC JHS bought the following items for school. 10 footballs for GHC 2,000.00, 20 notebooks for GHC 400.00, 50 pens for GHC 250.00, 8 registers for GHC 240.00 and 2 laptop computers for GHC 7,000.00.

(i) How many columns and rows are needed to create a table for the head teacher's items bought including ABC JHS as heading for the table without the serial numbers of the items?

.....  
 ..... [2 marks]

(ii) Outline the steps to be followed to create the table mentioned in 3(a)(i) using Microsoft Word.

.....  
 .....  
 .....  
 .....  
 ..... [2 marks]

(b) The file size of a presentation created by a student is too large to be sent through e-mail to a friend. Suggest **one** possible reason for the large file size.

(i) .....  
 ..... [2 marks]

(c) State **one** feature of Microsoft Publisher.

(i) .....  
 ..... [2 marks]

(d) Study the Microsoft Excel worksheet carefully and use it to answer the question that follows.

	A	B	C	D	E
1	NAME OF STUDENT	TERM 1	TERM 2	TERM 3	TOTAL
2	Kofi Malik	84	75	88	247
3	Ama Ghana	85	74	86	245

Write a function in Microsoft Excel to determine the **lowest** termly score for Kofi Malik.

.....  
[2 marks]

4. (a) Computer networks come in several topologies. State **two** features of the ring topologies.

(i) .....  
.....

(ii) .....  
.....

[4 marks]

(b) Abu, the leader of a class does not understand how to use the *Forward all* feature in an e-mail to send a message to everyone in the class. Explain to Abu what *Forward all* means.

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

[3 marks]

(c) A computing teacher has given a class an assignment to design a personal blog. What **two** design features should be used to design the blog?

(i) .....  
.....

(ii) .....  
.....

[4 marks]

(iii) Write the name of **one** tool that can be used to design the blog.

.....  
.....

[1 mark]

5. (a) In computer operation, expressions are evaluated using operator precedence approach. Follow the approach and evaluate the expression:  
 $(1+3)*5+7$

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

[3 marks]

- (b) How would you describe the term *decomposition* in programming to a friend who was not in class when it was taught?

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

[3 marks]

- (c) Mention **three** software packages that are used in the construction of robotic artifacts.

(i) .....

(ii) .....

(iii).....

[3 marks]

- (d) Write a possible IF-THEN statement for an imaginary expert system to execute the statement:  
You are a Monday born and a female which means you are called Adwoa.

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

.....  
[3 marks]

***END OF ESSAY TEST***

PAPER 1  
OBJECTIVE

Answer **all** the questions.

Each question is following by **four** options lettered A to D. Find the **correct** option for **each** question and shared in **pencil** on your answer sheet the answer space which bears the same letter as the option you have chosen. Give only **one** answer to **each** question. An example is given below.

Which of the following is an input device?

- A. Monitor
- B. Projector
- C. Speaker
- D. Stylus

The correct answer is stylus which is lettered D and therefore answer space D would be shaded.

[ A ]

[ B ]

[ C ]

[ D ]

[ E ]

Think carefully before you shade the answer spaces. Erase completely any answer you wish to change.

Do all rough work on this question paper. Now answer the following questions.

1. A student in the computer laboratory wants to change the style, size and colour of a typeface in Microsoft Word application. The appropriate tool to be used is
  - A. font.
  - B. styles.
  - C. clipboard.
  - D. paragraph.
2. A quiz master asked participants to complete the statement: whiles the Internet Explorer is used to access information from the internet, Windows File Explorer is used to
  - A. browse the internet using explorer.
  - B. edit files in the explorer window.
  - C. Manage and organize files and folders.
  - D. Manage and organize music and videos.
3. The concept of Artificial Intelligence's ability to suggest related information to a user who regularly surfs the internet is referred to as
  - A. deep learning.
  - B. neural network.
  - C. computer vision.
  - D. logical reasoning.
4. A blog has many sections. The purpose of the comment section is to
  - A. share personal information with readers.
  - B. promote other blogs on the same platform.
  - C. engage with readers and encourage discussion.
  - D. sell products and services to readers and friends.
5. In a printing industry, the device that uses the mechanism of laying down a transparent dye and melting dots of wax-based ink to produce an output is a
  - A. wax heater.
  - B. wax printer.
  - C. thermal heater.
  - D. thermal printer.
6. Collaborative robot is a category of robots that
  - A. works alongside humans.
  - B. paints pictures for commercial sake.
  - C. makes both fast and slow movements.
  - D. dances to audience for entertainment.

7. A student inserted a picture into a Microsoft PowerPoint presentation and needed to work on the picture to adjust the brightness and contrast to make it more clearer. The **best** tool to help the student achieve the task is
- Picture Size.
  - Format Picture.
  - Picture Layout.
  - Picture Effects.
8. A student is watching video from a pen drive using a computer. The process the computer uses to access the video from the pen drive is known as
- burning.
  - caching.
  - reading.
  - writing.
9. What does the formula = IF(A1>10, "Pass", "Fail") do in a Spreadsheet application?
- Checks if the value in cell A1 is equal to 10 and returns Fail
  - Checks if the value in cell A1 is less than 10 and returns Pass
  - Checks if the value in cell A1 is greater than 10 and returns Fail
  - Checks if the value in cell A1 is greater than 10 and returns Pass
10. A teacher tasked students to demonstrate an activity using a flowchart diagram. The appropriate symbol to use at the processing stage of the activity is
- oval.
  - rhombus.
  - rectangle.
  - parallelogram.
11. Settings and permissions that are specific to a user and determines the activities the user can perform on windows environment on the computer is known as
- log.
  - account.
  - customization.
  - configuration.
12. Good health practice suggests that we take intermittent breaks while working. The importance of taking breaks during prolonged computer use is to
- increase productivity in users.
  - conserve energy in the computer.
  - avoid eye strain and muscle fatigue.
  - increase screen time when working.
13. Four students in a class wrote the following function in Microsoft Excel. Which of the functions written by the students will return an output?
- =SUM(10A:A17)
  - =SUM(10A:17A)
  - =SUM(A10:A17)
  - =SUM(A10:17A)
14. To demonstrate to a class, the steps to be taken to create a PivotTable from a set of data in Microsoft Excel worksheet, click on
- Home Tab, then PivotTable.
  - Insert Tab, then PivotTable.
  - Data Tab, then PivotTable.
  - View Tab, then PivotTable.
15. In a computer shop, the attendant advised a customer to buy the fifth generation computer due to its feature that uses
- transistors.
  - vacuum tubes.
  - microprocessors.
  - artificial intelligence.
16. The social media platform that allows members to post questions, start a discussion or contribute to various discussions is
- Forums.
  - Facebook.
  - Messenger.
  - WhatsApp.
17. The introduction of Artificial Intelligence as come with its related ethical concerns such as
- job creation.
  - bias in algorithm.
  - improved healthcare.
  - increased productivity.

18. A user who selected 4x3 in the insert table grid in a Word document will insert
- 4 tables.
  - 12 tables.
  - a table of 4 rows and 3 columns.
  - a table of 4 columns and 3 rows.
19. The Screenshot feature under the Insert Tab of a Microsoft PowerPoint application allows a user to insert a screenshot of
- active application.
  - opened applications.
  - foreground applications.
  - downloaded applications.
20. The examination scores in Computing of a class was entered into a Microsoft Excel worksheet. The appropriate function for finding the **largest** score in the class is
- AVG.
  - MIN.
  - MAX.
  - SUM.
21. In pseudocode, the keyword FOR indicates
- variables or constants in the code.
  - input or output structure in the code.
  - decision control structure in the code.
  - loop with fixed number of iterations in the code.
22. The central device that communicates with other network devices and manages resources is a
- hub.
  - client.
  - server.
  - switch.
23. A user is to apply predefined formatting styles to texts in Microsoft PowerPoint application. The **best** features to use is
- WordArt.
  - Text Effects.
  - Font Colour.
  - Quick Styles.
24. The robotic club of a school is to construct a robot to be able to detect objects around it. The **most** appropriate sensor to be used is
- light sensor.
  - tactile sensor.
  - torque sensor.
  - proximity sensor.
25. A teacher tasked her students to create a date with year, month and day format. The **most** appropriate Microsoft Excel function to achieve the date format is
- DATE().
  - DATEDIF().
  - CURDATE().
  - DATEVALUE().
26. Cybercriminals can obstruct data in transmission to and from a device or a network using a data threat attack technique called
- fabrication.
  - interruption.
  - interception.
  - modification.
27. A teacher sends class assignment to his students using an e-mail. The protocol used by the e-mail to send the assignment over the internet is
- FTP
  - TCP
  - HTTP
  - SMTP
28. The **Merge & Centre** button in a Spreadsheet application is used to
- select multiple cells and center the content.
  - create a new worksheet and center the content.
  - combine and center the content of selected cells.
  - combine and center the content of the worksheet.

29. Arku entered 20 into a computer as quantity of pencils bought. How will the figure be represented in the computer for processing?
- 10010
  - 10011
  - 10100
  - 11001
30. Cindy was trying to access information from the WAEC website but whenever she enters the URL, it takes her to a different website. Her friend advised that she must ensure the URL entered is correct because it identifies
- ads in the web resource.
  - the texts of the web resource.
  - the address of the web resource.
  - graphics used in the web resource.
31. In Desktop Publishing, a user can create a new document through the following ways **except** for
- print publication.
  - built-in template.
  - blank publication.
  - featured template.
32. The Desktop Publishing feature that **best** helps a user to align objects, texts and elements in a publication is called
- ruler.
  - layout.
  - guides.
  - margins.
33. One of your classmates continuously sends threat messages through social media platforms to you. This act is known as
- cyberattack.
  - cyberstalking.
  - cybersecurity.
  - cyberbullying.
34. A computing project work requires students to design a blog for a school. The **best** item to be used for customizing the blog is the school's
- flag.
  - logo.
  - crest.
  - uniform.
35. Computer manufacturing went through series of developmental stages with each stage characterized by a unique technological advancement. The use of integrated circuits is a characteristics of the
- first generation.
  - second generation.
  - third generation.
  - fourth generation.
36. In computer programming, debugging is a technique used to
- test the code.
  - fix errors in the code.
  - create bugs intentionally.
  - write code to play games.
37. Which of the following services **best** describes an entrepreneurial opportunity in computer networking?
- Teaching desktop publishing in schools
  - Developing game applications for schools
  - Designing websites for businesses and schools
  - Setting up Wi-Fi networks for cafes and schools
38. The peripheral device shown in Figure 1 is used to capture



Figure 1

- audio data.
- video data.
- image data.
- textual data.

39. The practice of the use of computers and related electronic resources in an environmentally responsible manner is termed
- A. ergonomics.
  - B. green computing.
  - C. safety precautions.
  - D. environmental friendliness.

40. Social media users can regulate the type of information they share on their pages. Privacy setting which is one of such activities they can regulate is to
- A. make posts visible to everyone.
  - B. prevent one from using the platform.
  - C. automatically share posts with everyone.
  - D. control who can see one's posts and information.

***END OF PAPER***