

BEDIAKO MEMORIAL INSTITUTE
SECOND MOCK EXAMINATION – 2024/2025
COMPUTING

NAME: **TIME: 2 HOURS**

INSTRUCTIONS: This paper is made up of two parts, **Paper 1** and **Paper 2**. You are to answer **all** questions in **Paper 1**. **Paper 2** is made up of two Sections, **A** and **B**. Answer all questions in Section A (24 marks) and any **three** (3) questions from Section B (36 Marks). The total mark for this paper is **100**. Answer **all** the questions in the spaces provided in this questions paper. Credit will be given for clarity of expression and orderly presentation of material.

Paper 1 (40 Marks): Answer **all** questions in this Section. Shade the letter corresponding to the correct answer on the **objective answer sheet** provided. Each question carries **1 mark**.

PAPER 2

ESSAY – [60 marks]

SECTION A – [24 marks]

Answer Question 1 (Compulsory)

1. Figure 1 shows computer users in a school's computer laboratory.

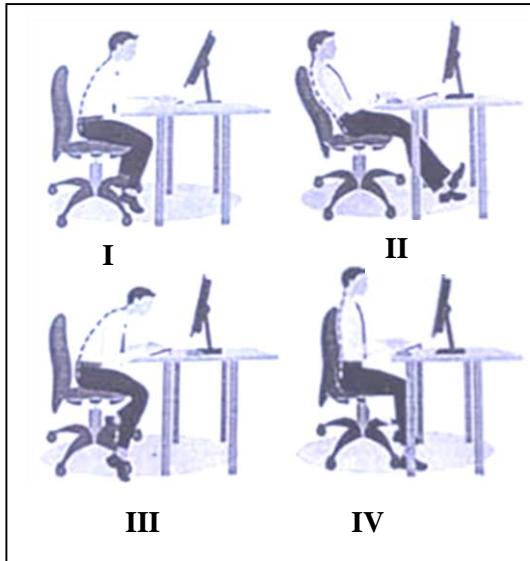


Figure 1

The users are required to use the Microsoft Excel to analyse and interpret the data, applying various Excel functions and formulas to gain insights. The following table shows the exam scores of students in Basic 9.

	A	B	C	D	E	F
1	STUDENT NAME	MATH	SCIENCE	ENGLISH	SOCIAL STUDIES	COMPUTING
2	Kwame Appiah	78	85	92	88	75
3	Kweku Arthur	83	78	84	90	82
4	Kobina Arko	67	74	76	72	69
5	Kofi Mensah	95	92	88	91	94
6	Yaw Kusi	72	79	81	77	85
7	Kwesi Sarkodie	88	91	93	85	89

Study the figure 1 and the table carefully and use it to answer questions 1(a) to 1(i).

- (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 adapt to minimize workstation risks. [4 marks]
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- (c) Mention **two** reasons why the users should use ergonomic chair while working on the computer. [4 marks]
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- (d) Identify four (4) data types the users can make use of in Excel. [2 marks]
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- (e) Write down the formula the users should use to calculate the total score for Science. [2 marks]
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- (f) State the function that the users would use to find the average score for Computing. [2 marks]
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- (g) Write a function in Excel the users can apply to determine the highest score for Kobina Arko. [2 marks]
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- (h) Write an excel function the users can use to determine the number of students in Basic 9 [2 marks]
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- (i) The users have been using their computers as standalone. State two benefits they will derive when their computers are networked. [4 marks]
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SECTION B – [36 marks]

2. (a) Describe the *processor* of a computer to your colleagues in your class. [3 marks]
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Study the figure 2 carefully and use it to answer questions 2(b) to 2(c).



Figure 2

- b)** Write the name of the image shown in Figure 2. [2 marks]

[2 marks]

- c) Describe to your colleagues in class, 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. [3 marks]

[3 marks]

- 3. a)** *Insight Innovations Ltd. is exploring new technologies in perceptual computing to enhance customer engagement in their stores. They are considering a system that could analyse how customers interact with products and respond to their actions.*

- i) Briefly explain *perceptual computing* in simple terms.

[3 marks]

- ii) Suggest two (2) perceptual computing technologies or features that the store could install. For each, briefly explain how it would benefit Insight Innovations Ltd. [4 marks]

- b)** Write down two actions a user should take before sharing a photo or status update on social media to ensure it is appropriate and safe. **[2 marks]**
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- c)** What is the primary purpose of the comment section on social media posts? **[2 marks]**
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- d)** Mention one example microblogging app. **[1 marks]**
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- 4. a)** Read the statements about data types in programming in the table below and use them to answer the questions that follow. **[4 marks]**

	STATEMENTS AND QUESTIONS	ANSWER
i.	In an online store, you need to track the number of items a customer has purchased. What data type would you use for the quantity?	
ii.	If the customer purchases an item priced at \$9.99, what data type would you use to store the price?	
iii.	You are developing a user registration system and need to store a user's full name and email address. What data type would you use for these values?	
iv.	In a system where you need to check if a user has completed a required task, what data type would you use to store the completion status?	

- b)** Your school is considering adding a touch screen to the computer lab. List two benefits and two challenges that might come with using a touch screen in this environment. **[4 marks]**
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- c)** Your school is planning to set up a computer network in the lab.

- i.** Choose one type of network topology that you think would be most suitable for the school. Briefly explain why you chose this topology. **[2 marks]**
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- ii)** Draw a diagram to represent the chosen network topology, showing how the computers and main connection points are arranged. **[2 marks]**



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]

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

[3 marks]

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- c) Your school is considering installing sensors in different areas to improve safety and efficiency. Identify two types of sensors that could be used and briefly explain how each sensor would help in a specific situation within the school environment.

[3 marks]

PAPER 1

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 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 proper purpose of the comment section is to.....
- A. share personal information with others 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 the 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. work alongside humans B. paints pictures for commercial sale
C. makes both fast and slow movement D. dances to audience for entertainment
7. A student inserted a piece of picture into Microsoft PowerPoint presentation and needed to work on the picture and to adjust the brightness and contrast to make it more clearer. The **best** tool to help the student achieve the task is.....
- A. Picture Size B. Format Picture C. Picture Layout D. 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.....
- A. burning B. caching C. reading D. writing
9. What does the formula =IF(A1>10, "Pass", "Fail") do in a Spreadsheet application?
- A. Checks if the value in cell A1 is equal to 10 and returns fail
B. Checks if the value in cell A1 is equal to 10 and returns Pass
C. Checks if the value in cell A1 is greater than 10 and returns fail
D. 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 be used at the processing stage of the activity is.....
- A. Oval B. Rhombus C. Rectangle D. 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.....
- A. log B. account C. customization D. configuration
12. Good health practice suggests that we take intermittent breaks while working. The importance of taking breaks during prolonged computer use is to.....
- A. increase productivity in users B. conserve energy in the computer
C. avoid eye strain and muscle fatigue D. increase screen time when working
13. Four students in a class wrote the following function Microsoft Excel. Which of the functions written by the students will return an output?
- A. =SUM(10A:A17) B. =SUM(10A:17A) C. =SUM(A10:A17) D. =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.....
- A. Home Tab, then PivotTable B. Insert Tab, then PivotTable
C. Data Tab, then PivotTable D. 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.....
A. transistors B. vacuum tubes C. microprocessors D. artificial intelligence
- 16.** The social media platform that allows members to post questions, start a discussion or contribute to various discussions is.....
A. Forums B. Facebook C. Messenger D. WhatsApp
- 17.** The introduction of Artificial Intelligence has come with its related ethical concerns such as.....
A. job creation B. bias in algorithm C. improved healthcare D. increased productivity
- 18.** A user selected a 4×3 in the insert table grid in a Word document will insert.....
A. 4 tables B. 12 tables C. a table of 4 rows and 3 columns D. 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.....
A. active applications B. opened applications C. foreground applications D. 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.....
A. AVG B. MIN C. MAX D. SUM
- 21.** In pseudocode, the keyword FOR indicates.....
A. variables or constants in the code B. input or output structure in the code
C. decision control structure in the code D. loop with fixed number of iterations in the code
- 22.** The central device that communicates with other network devices and manages resources is a.....
A. hub B. client C. server D. switch
- 23.** A user is to apply predefined formatting styles to texts in Microsoft PowerPoint application. The **best** feature to use is.....
A. WordArt B. Text Effects C. Font Colour D. 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.....
A. light sensor B. tactile sensor C. torque sensor D. 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.....
A. DATE() B. DATEDIF() C. CURDATE() D. DATEVALUE()
- 26.** Cybercriminals can obstruct data in transmission to and from a device or a network using a data threat attack technique called.....
A. fabrication B. interruption C. interception D. 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.....
A. FTP B. TCP C. HTTP D. SMTP
- 28.** The **Merge & Center** button in a Spreadsheet application is used to.....
A. select multiple cells and centre the content B. create a new worksheet and centre the content
C. combine and centre the content of selected cells D. combine and centre the content of the worksheet

- 29.** Arku entered 20 into a computer as a quantity of pencils bought. How will the figure be represented in the computer for processing?
A. 10010 B. 10011 C. 10100 D. 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 her that she must ensure the URL entered is correct because it identifies.....
A. ads in the web resource B. the texts of the web resource
C. the address of the web resource D. graphics used in the web resource
- 31.** In desktop publishing, a user can create a new document through the following ways except for.....
A. print publication B. built-in template C. blank publication D. featured template
- 32.** The Desktop Publishing feature that **best** helps a user to align objects, texts and elements in a publication is called.....
A. ruler B. layout C. guides D. margins
- 33.** One of your classmates continuously sends threat messages through social media platforms to you. This act is known as.....
A. cyberattack B. cyberstalking C. cybersecurity D. 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.....
A. flag B. logo C. crest D. 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 characteristic of the.....
A. first generation B. second generation C. third generation D. fourth generation
- 36.** In computer programming, debugging is a technique used to.....
A. test the code B. fix errors in the code C. create bugs intentionally D. write a code to play music
- 37.** Which of the following services **best** describes an entrepreneurial opportunity in computer networking?
A. Teaching desktop publishing in schools B. Developing game application for schools
C. Designing websites for businesses D. Setting up Wi-Fi networks for cafes and schools
- 38.** The peripheral device shown in Figure 1 is used to capture.....
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- A. audio data B. video data C. image data D. 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 types of information they share on their pages. Privacy setting which is one of such activities they can regulate is used 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