

EDUCATION-NEWS CONSULT MOCK - 2024 EDITION FOR 2024 BECE

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SPECIAL PERFORMANCE BOOSTER – MOCK 3

JANUARY 2024 COMPUTING 1 HR, 45 MINS

Do not open this booklet until you are told to do so. While you are waiting, read and observe the following instructions carefully. Write your name and index number in ink in the spaces provided above.

This booklet consists of two papers; I and II. Answer Paper 2 which comes first in your answer booklet and Paper 1 on your Objective Test answer sheet. Paper 2 will last for 1 hour, after which the answer book let will be collected. Do not start Paper until you are told to do so. Paper 1 will last 45 minutes.

VERY IMPORTANT INSTRUCTIONS

- 1. Read through the questions, brainstorm and plan your answers before you finally answer them. This is one of the good ways to manage your time in an exam and to do well.
- 2. Write clearly, use simple expressions and provide the best answers possible.
- 3. Write answers that provide additional information. If you just list answers or provide one to three worded answers, your will fail the paper.
- 4. Do well to explain your answers to help earn full marks. Check your units of measurement, spellings, grammar and read over your work before submitting.
- 5. Write question numbers boldly, start every new major question (answers) on a new page.
- 6. Do not rewrite the full question before answering. Only write the question number.
- 7. Show workings in all instances in section B if the question involves calculations.

TURN OVER

THIRD MOCK EXAMINATION COMPUTING **1 HOUR, 45 MINUTES**

PAPER 2

ESSAY

This paper consists of two sections: A and B. Answer questions 1 in section A and any other two questions in section B. All questions carry equal marks. Answer all the questions in the spaces provided in this question paper. SECTION A

[24 MARKS]

Answer Question 1 (compulsory)

1. a. Study the devices in figure 1 carefully and use them to answer questions 1 (a) to (c).

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Figure: 1	D
a. i. What is the name given to the devices in Figure 1.	2 marks
ii. Identify the devices shown in Figure 1.	8 marks
Α	
B	
c	
D	
b. Mention one use each of the above devices.	8 marks
A	
В	
C	
D	

A						
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B		••••••			• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
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SECTION B [36 MARKS] GENERAL KNOWLEDGE IN COMPUTING

Answer only three questions from this section. All questions carry equal marks.

2. a. Mrs. Boateng wishes to use a storage location where she can access her documents from any location and on any device. Suggest some **two** cloud storage providers which she can use for storing files. 4 marks

b. State four features expected to be s	seen in the next generation of	computers. 4 marks		
c. State four ways technology can be u	used to solve discrimination.	4 marks		
3. a. Match the following icons to their correct names. 5 marks				
	SmartArt			
4	Shapes			
	Pictures			
[0]+	Chart			
	Screenshot			
b. On which tab can all the above icor	ns be found?	1 mark		

 c. What are the various health issues faced by people working at a workstation? State three
6 marks

..... 4. a. What is perceptual computing? 4 marks b. Mention any **four (4)** examples of plug and play devices. 4 marks c. List four (4) examples of smart cards. 4 marks 5. a. Write down the steps to change a desktop icon. 5 marks b. Outline **four** safety risk reduction issues that should be evaluated at workstation. 3 marks c. List four (4) features of perceptual computing. 4 marks

END OF ESSAY TEST

PAPER 1 OBJECTIVE TEST 45 MINUTES

Answer All Questions Each question is followed by four options lettered A to D. Find out the correct option for each question and shade 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.

- 1. How many qubits does Google's Sycamore quantum computer use? ` A. 5 B. 10 C. 53 D. 100
- 2. Which technology is used by Google Sycamore for quantum computing?
 - A. Superconducting qubits
 - B. Fiber optics
 - C. Transistors
 - D. RAM chips

3. What technology is helping computers to interact with humans and "see" in the upcoming years?

- A. Quantum computing
- B. Artificial intelligence
- C. Facial recognition
- D. Neuromorphic computing
- 4. Which of the following is a characteristic of quantum computers?
 - A. They use binary code.
 - B. They rely on transistors for processing.
 - C. They perform calculations using qubits.
 - D. They are slower than traditional computers.
- 5. In which phase of development is artificial intelligence currently?
 - A. Mature and well-established
 - B. In its early stages
 - C. In decline and losing relevance
 - D. None of the above

6. What is the term used to describe the next generation of computers that are expected to be much faster and more powerful than current ones?

- A. Supercomputers
- B. Next-gen computers
- C. Quantum computers
- D. Mega computers

7. How is the economic structure expected to improve significantly in the context of increased connectivity?

- A. Through the use of traditional phone lines
- B. With advancements in wired connections
- C. Through 5G connectivity and improved digital connections
- D. By decreasing digitalization

- 8. What is the main advantage of quantum computers over traditional computers?
 - A. They are cheaper.
 - B. They are smaller in size.
 - C. They can perform many calculations simultaneously.
 - D. They have a longer lifespan.

9. What is the term for the technology that allows computers to understand and respond to human gestures and movements?

- A. Holography
- B. Gesture recognition
- C. Hypnosis
- D. Sound engineering
- 10. All the following are examples of wearable devices except A. mobile phone. B. google glass. C. smart watch. D. hearing aid.
- 11. The digital form of printed book is well known as.....A. digital book. B. e- book. C. e-paper. D. e-book readers.

12. Saving your files in a remote location and access them later through the internet is called?

- A. Cloud storage
- B. Internet storage
- C. Remote storage
- D. Media Server

13. All the following are examples of smart card except.....

- A. Ghana card.
- B. ATM card.
- C. Voters ID card.
- D. SSNIT card.
- 14. Which of the following is not an example of plug and play device? A. Printer B. Mouse C. Keyboard D. Webcam

15. Which drivers control the proper functioning of audio devices connected to the computer system

- A. LAN drivers
- B. Sound drivers
- C. Graphic drivers
- D. Card drivers
- 16. One the following is not an example of cloud storage.
 - A. Hard drive B. Google drive C. One drive D. iCloud
- 17. What is the main goal of ergonomics in a workstation setup?
 - A. To make the workstation look modern.
 - B. To maximize the number of devices in the workstation.
 - C. To make it easy and safe for people to use.
 - D. To create an artistic workspace.

18. How can an ergonomic workstation reduce the risk of discomfort or pain for users?

- A. By using advanced AI technology.
- B. By reducing the number of devices in the workspace.
- C. By arranging the workspace to support the body in a neutral position.
- D. By increasing the complexity of the equipment.

19. Why is it recommended to use a headset while using the computer and phone simultaneously?

- A. To keep the phone closer to the computer.
- B. To prevent awkward neck postures.
- C. To have both hands free for typing.
- D. To reduce the risk of tripping over cables.

20. What is the primary benefit of using a document holder/stand in an ergonomic workstation?

- A. To increase the amount of paperwork on the desk
- B. To impress colleagues with your organization skills
- C. To prevent documents from being misplaced
- D. To avoid twisting the neck while typing
- 21. Which of the following is considered a Kernel-mode device driver?
 - A. Mouse driver
 - B. BIOS
 - C. Printer driver
 - D. Sound card driver
- 22. What is the primary function of a device driver?
 - A. To enhance gaming performance.
 - B. To control a specific hardware device.
 - C. To improve network connectivity.
 - D. To optimize computer speed.

23. When a new device is added to a computer system, what must be done before the device can be used?

- A. Nothing, as devices automatically configure themselves.
- B. Install a new operating system.
- C. Install a new device driver for the added device.
- D. Restart the computer.

24. How do you access the mouse properties dialog to change the mouse pointer?

- A. Right-click on the Start menu
- B. Right-click on the desktop and select Properties
- C. Press Ctrl + Alt + Delete.
- D. Click on the desktop.

25. To apply the changes after selecting a new mouse pointer scheme, what should you click?

- A. Use Default
- B. Apply and then OK
- C. Cancel
- D. Right click

- 26. What is the purpose of the "Scheme" dropdown list in the mouse properties dialog?
 - A. To select your preferred wallpaper.
 - B. To choose the mouse pointer size and colour.
 - C. To set the screen resolution.
 - D. To set the background colour.
- 27. What kind of input does gesture recognition technology typically use?
 - A. Voice commands.
 - B. Hand and body gestures.
 - C. Keyboard input.
 - D. Mouse clicks.
- 28. Which of the following is not a disadvantage of cloud storage?
 - A. Extra storage space at a cost
 - B. Security and privacy concerns
 - C. Internet connection required
 - D. Data is always accessible
- 29. What advantage does holographic storage have over other media?
 - A. It is cheaper.
 - B. Data recording and retrieval are faster.
 - C. It uses magnetic fields for storage.
 - D. It requires an internet connection
- 30. To access your data in cloud storage, what do you need?
 - A. A computer
 - B. A mobile phone
 - C. An internet connection
 - D. A USB drive
- 31. Which of the following is not a feature of perceptual computing?
 - A. Emotion detection
 - B. Hand tracking
 - C. Password management
 - D. Speech recognition
- 32. How can perceptual computing systems recognize users?
 - A. By asking for a password
 - B. By reading their minds
 - C. Through sensory inputs like face tracking and recognition
 - D. By sending a confirmation email

33. Which tab in Microsoft Word contains the "Pictures" option to insert images from your computer?

A. Home B. Insert C. Page Layout D. Design

34. To add a picture from your computer into a Microsoft Word document, you should click on which icon after selecting the "Pictures" option?

A. Photo Album B. Clip Art C. Screenshot D. This Device

35. How much free storage space is typically available on a basic OneDrive account?A. 5 GBB. 15 GBC. 50 GBD. 100 GB

36. What is the purpose of taking a screenshot in Microsoft Word?

A. To capture the text from a website

B. To capture and save an image of your computer screen

C. To print the entire document

D. To create a hyperlink

37. What is the primary purpose of adding multimedia elements in a Microsoft Word document?

A. To improve spelling and grammar

B. To enhance the visual appeal and engagement of the document

C. To increase the word count.

D. To create hyperlinks.

38. What is the purpose of using hyperlinks in a Microsoft Word document?

A. To underline text.

B. To make text bold.

C. To create a table of contents.

D. To provide easy navigation to other parts of the document.

39. What is the maximum free storage capacity available on Google Drive for individual users?

A. 10 GB B. 15 GB C. 50 GB D. 100 GB

- 40. Which of the following is an advantage of the next generation of computers?
 - A. Low energy consumption.
 - B. Increase in cybercrimes.
 - C. Job displacements
 - D. Addiction PREM

EDUCATION-NEWS CONSULT 0550360658 THIRD MOCK MARKING SCHEME COMPUTING

1. C	6. C	11. B	16. A	21. D	26. B	31. C	36. B
2. A	7. C	12. A	17. C	22. B	27. B	32. C	37. B
3. B	8. C	13. B	18. C	23. C	28. D	33. B	38. D
4. C	9. B	14. D	19. B	24. B	29. B	34. D	39. B
5. B	10. A	15. B	20. D	25. B	30. C	35. B	40. A

PAPER 1 OBJECTIVE TEST [40 MARKS]

PAPER 2 [60 MARKS]

Question 1

a. i. What is the name given to the devices in Figure 1?2 marksWearable devices2

ii. Identify the devices shown in Figure 1.

- A = Google grass
- B = Smartwatch displays
- C = Virtual Reality headset displays
- D = Fitness tracker displays

8 marks @ 2 marks each

$b. \ \mbox{Mention one use each of the above devices}.$

A = **Google Glass** is used as a wearable augmented reality device that can display information, take photos and videos, provide directions, and access various apps and services, all while allowing the user to maintain a hands-free experience.

B = **Smartwatch** displays are often used for various functions, including checking the time, receiving notifications for calls and messages, monitoring health and fitness data, tracking steps and physical activity, and controlling music or other connected devices.

C = **VR headset displays**: VR (Virtual Reality) headset displays are primarily used for immersive gaming experiences, virtual tours, simulations, and interactive entertainment, creating a 3D virtual environment that users can explore and interact with.

D = **Fitness tracker** displays are used to track and monitor health and fitness metrics, such as step count, heart rate, sleep patterns, and calories burned. Users can view this information to help them stay active and maintain a healthier lifestyle.

8 marks @ 2 marks each

c. State three (3) uses of smart card.

- Banking & Retail
- Healthcare
- Transportation.
- ID verification and access control
- Mobile communications
- Computer and network security

Question 2

- $a. \ \mbox{Suggest some two cloud storage providers which she can use for storing files.}$
 - Google Drive
 - One Drive
 - Dropbox
 - iCloud
 - Amazon cloud drive

4 marks @ 2 marks each

b. The four features expected to be seen in the next generation of computers include:

- Neuromorphic Computing
- Quantum Computers
- Artificial Intelligence
- Facial Recognition and Computer Vision
- Increased Connectivity

4 marks @ 1 mark each

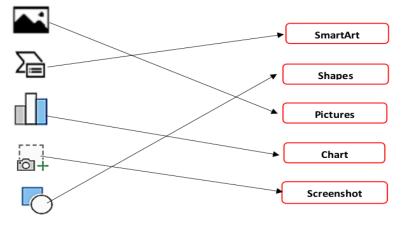
c. State four ways technology can be used to solve discrimination.

- Artificial intelligence
- Data analytics
- Digital accessibility
- Education and awareness
- Reporting and accountability

4 marks @ 1 mark each

Question 3

a. Match the following icons to their correct names.



5 marks @ 1 mark each

b. On which tab can all the above icons be found? 1 mark Insert Tab

c. What are the various health issues faced by people working at a workstation?

- Musculoskeletal Problems
- Eye Strain
- Repetitive Stress Injuries
- Cardiovascular Problems

6 marks @ 2 marks each

Question 4

a. What is perceptual computing?

Perceptual computing is a concept that refers to the use of technology and techniques that enable computers to interpret and respond to human perception and behaviours.

b. Mention any four (4) examples of plug and play device.

- External hard drive
- Mouse
- Gamepad or joystick
- USB flash drive
- Keyboard
- Webcam

4 marks @ 1 mark each

c. List four (4) examples of Smart Cards.

- ATM cards (debit and credit cards)
- ID cards (Ghana card and SSNIT card)
- Passports
- SIM cards
- Pre-paid cards

Question 5

a. Write down the steps to change desktop icon.

- Right-click on desktop and select Personalize.
- Click on Themes at the left pane of the window.
- At the right pane, locate Related Settings and click on Desktop Icon Settings
- In the Desktop Icon Settings window, select the desktop icon you want to
- change and click Change Icon.

b. Outline four safety risk reduction issues that should be evaluated at workstation

- Ergonomic risks
- Electrical hazards
- Slip, trip and fall hazards
- Fire hazards
- Chemical hazard
- Heat generation

c. Features of perceptual computing includes

- Speech and Voice Recognition
- Controlling application using gestures
- Hand, Finger and Head tracking
- Gesture and pose recognition
- Face tracking and recognition
- Emotion detection

4 marks @ 1 mark each

4 marks (a) 1 mark each

2 marks

4 marks @ 1 mark each

4 marks