

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 spaces 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. Preslords supermarket has acquired QR code payment system for its customers to pay for goods purchased. The sequence of activities for the payment of goods at the supermarket is as follows:

Initialize QR code app
Scan QR code displayed
Enter password for confirmation
Verify password
Transaction is in process
Transaction processed

- (a) Write an algorithm using the above sequence of activities.

.....

.....

.....

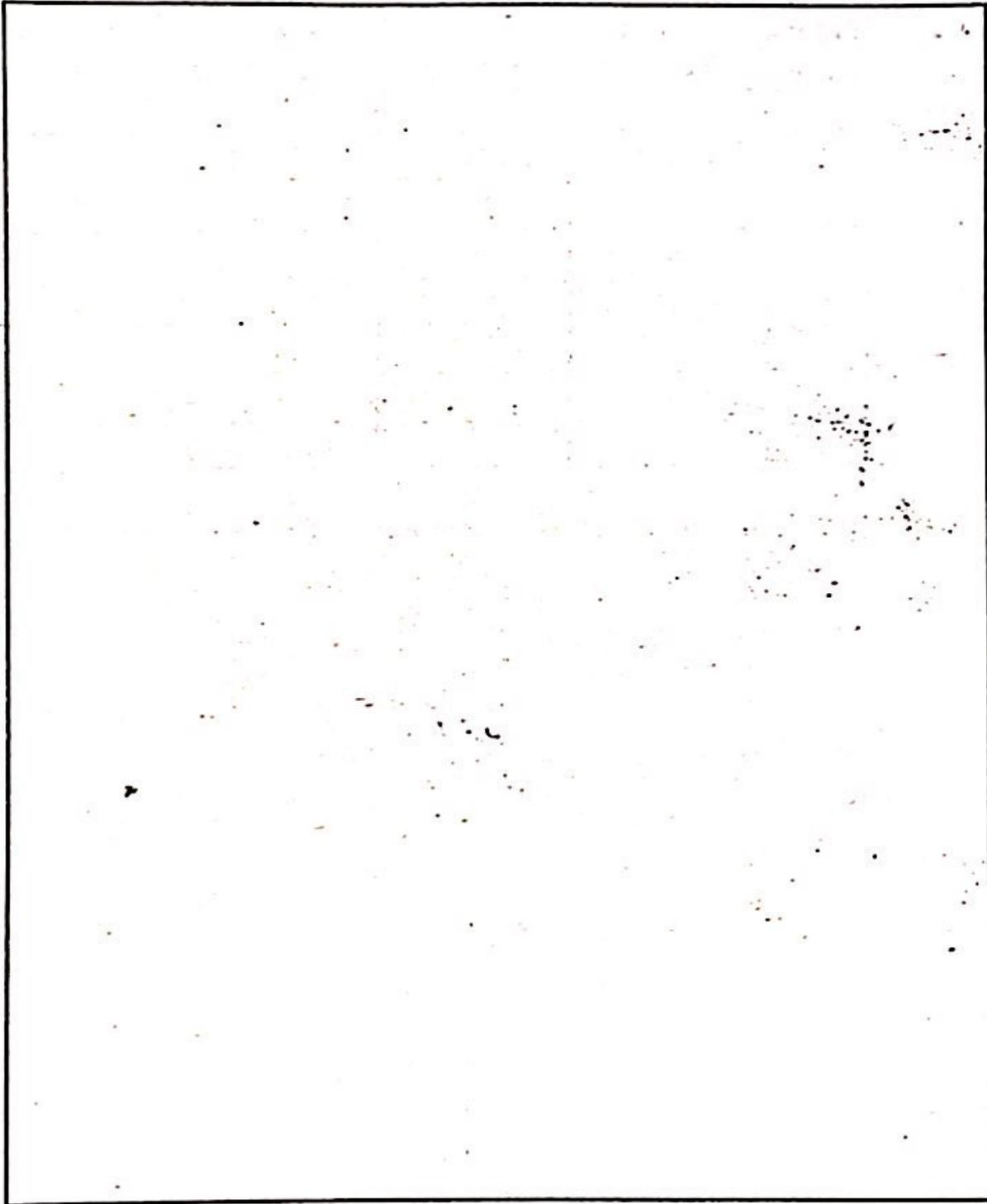
.....

.....

.....

.....
.....
[4 marks]

(b) Draw a flowchart of the above activities.



[8 marks]

(c) Suggest three benefits of using QR code payment system.

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

[6 marks]

- (d) Preslords supermarket offers weekend discount of 10% of the total item(s) purchased. Use the table below to answer the questions that follow.

	A	B	C	D
1	Items	Quantity	Unit Price	Amount
2	Sardine	15	2	30
3	Milo	25	3	75
4	Milk	5	1	5
5			Total	110
6			Discount (10%)	11
7			Discounted Amount	99

Provide the formula used in calculating the values in the following cells.

- (i) D5

.....
.....

[2 marks]

- (ii) D6

.....
.....

[2 marks]

- (iii) D7

.....
.....

[2 marks]

SECTION B

[36 marks]

Answer three questions only from this section.

2. (a) Explain the term *parallel computing* to your friend in your class.

.....

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

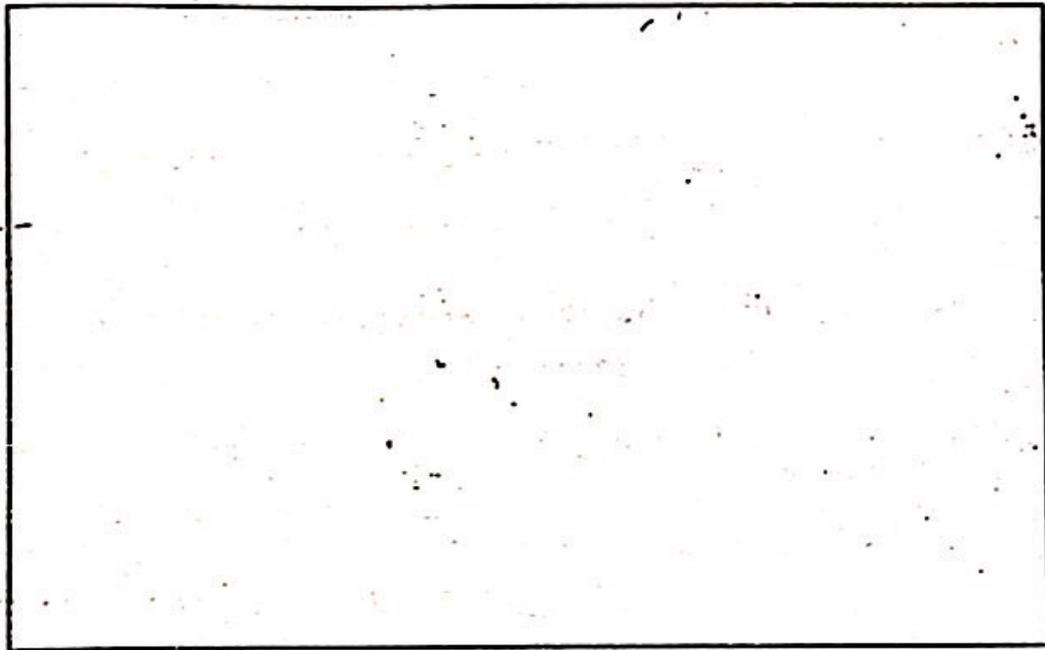
[2 marks]

(b) ABC trading company limited has three branches in Ghana: Accra, Kumasi and Sunyani. As a computing student, you have been asked to design a network to enhance the company smooth business.

(i) Identify a network suitable for the company.

..... [2 marks]

(ii) Draw a well labelled diagram of the network you have selected above.



[3 marks]

(c) (i) Abba finds it difficult to differentiate between a *server* and a *client* computer on a network. Briefly explain them to her.

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

[3 marks]

Turn over

(ii) Mention two techniques used to reduce the size of file for easily transmission.

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

3. (a) Describe the term *transistor* as used in second generation computers.

.....
.....
.....
[3 marks]

(b) (i) Using computer for long period of time causes health hazard. Suggest any three of these hazards to a friend.

.....
.....
.....
[3 marks]

(ii) Suggest any three possible measures to prevent the health hazard mentioned above.

.....
.....
.....
.....
[3 marks]

(c) Study the diagram below carefully as used in information security and use it to answer the questions that follow.



(i) Write the name of the image shown above.

.....
[1 mark]

(ii) Define the name of the image written above to your colleague.

.....

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

[2 marks]

4. (a) Study the figure below carefully and use it to answer the questions that follow.



(i) Identify the image displayed above.

.....
[2 marks]

(ii) State any three examples of the above video sharing websites.

.....
.....
.....
[3 marks]

(b) As a computing student, state any two reasons necessary to defrag your computer hard disk.

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

(c) Ama in designing her presentation wants to add visual moving effect to a certain slide to enhance her audience attention during presentation.

(i) Name an appropriate feature which will enable her to achieve this task.

.....
[2 marks]

(ii) Suggest the right order of steps to accomplish that task.

.....
.....

Turn over

5. (a) I:- learning has become part of today's education due to its numerous benefits. State any three of them.

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

[3 marks]

(b) Mention any three open learning websites you know to your colleagues.

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

[3 marks]

(c) Outline the steps in right order to launch any of the above open learning websites mentioned.

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

[3 marks]

(d) Explain the term *hyperlink* in MS Word to your friends in class.

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

[3 marks]

END OF ESSAY TEST

**DO NOT TURN OVER THIS PAGE
UNTIL YOU ARE TOLD TO DO SO.**

**YOU WILL BE PENALIZED SEVERELY IF YOU ARE
FOUND LOOKING AT THE NEXT PAGE BEFORE
YOU ARE TOLD TO DO SO.**

Answer all the questions.

Each question is followed by four options lettered A to D. Find 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. An example is given below.

Which of the following is an input device?

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

The correct answer is Stylus, which is lettered B and therefore answer space B would be shaded.

⌈ A ⌋

B

⌈ C ⌋

⌈ D ⌋

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

Do all rough work on this question paper.

Now answer the following questions.

1. Akos entered three numbers in column B in row 4, 5 and 6 in Excel. Which of these functions will return the maximum of the numbers entered?
 - A. =MAX (B4:B6)
 - B. =MAX (4B:B6)
 - C. =MIN (B4:B6)
 - D. =MIN (4B:6B)
2. In the concept of programming, an array in a program code is used for
 - A. smooth running of programming code.
 - B. compiling data.
 - C. documentation.
 - D. holding data.
3. Which of these uses 32-bit addresses to identify devices on a network?
 - A. IPv6
 - B. IPv4
 - C. IPv7
 - D. IPv2
4. You have been asked to reference a cell in Spreadsheet environment, this is done by using
 - A. column number and row letter.
 - B. column letter and row number.
 - C. formula.
 - D. function.
5. Ben wants a cell reference to remain constant when copied to another cell in excel. Which of the following symbols should be placed before both column letter and row number?
 - A. Percentages (%) sign
 - B. Dollar (\$) Sign
 - C. At (@) sign
 - D. Ampersand (&) sign
6. Ama identity was verified and confirmed before having access to system. In computing this process is termed as
 - A. encryption.
 - B. authorization.
 - C. authentication.
 - D. decryption.

Turn over

7. A single line of code that instructs the computer to perform a specific action in programming is termed as
- sequence.
 - iteration.
 - statement.
 - variable.
8. Precious was able to connect her new device automatically without any manual configuration. What device was she using?
- Modern AI
 - Plug and Play
 - Automatic machine
 - Auto-tech device
9. A student was asked in computing class to come up with Excel function to perform a logical test and returns a value for a condition. Which of the following would be best to use?
- Sort
 - sum
 - IF
 - conditional formatting
10. Computers now a days are fastest and smartest due to the use of Artificial Intelligence in the
- Fifth generation.
 - Fourth generation.
 - Third generation.
 - First generation.
11. AI system designed to perform specific or limited task rather than having general intelligence is termed as
- Strong AI.
 - Weak AI.
 - Robotics.
 - Modern AI.
12. In computing programming, the order in which operators are calculated in expression is referred to as
- Operator sequence.
 - Processing precedence.
 - Operator precedence.
 - Evaluation precedence.
13. In computing lesson, a student has been asked to design an application using step by step approach in programming. This concept is termed as
- pseudocode.
 - flowchart.
 - program.
 - algorithm.
14. Gaisie has a dedicated device that stores and delivers digital media to other devices on a network. What name is given to her device?
- Media server
 - Print server
 - Apps server
 - Client server
15. A student was asked in computing class to link his instruction in a flowchart. The appropriate symbol to be used is
- rectangle.
 - an arrow.
 - line.
 - double arrow.
16. Lordina has a portable electronic device designed that allows her to read digital books, newspapers and other digital media. Lordina device is referred to as
- E-book.
 - Kindle.
 - Google glass.
 - Light pen.
17. The ability of AI to improve performance over time by learning from data and experiences is termed as
- Augmented Reality.
 - Automation.
 - Artificial Neural Network.
 - Machine learning.
18. A computer user in PowerPoint environment wants to apply visual effects to individual elements to highlight key points within a slide. Which of these features will enable him to perform this task?

- A. Transition
B. Animation
C. Themes
D. Slideshow
19. Abba in creating a document in MS Word added pre-designed images to enhance the appearance of her document. What name is given to the pre-designed images added?
A. Template
B. Clipart
C. Clipboard
D. WordArt
20. Abigail typed 2, 5 and 9 in cells A1, A2 and A3. What value will the Excel function =Product (A1:A3) return on Abigail's data?
A. 16
B. 90
C. 3
D. 6
21. Which of the following terminologies is associated with network topology?
A. DOS
B. LAN
C. Array
D. Mesh
22. Hannah wants to practice her presentation while recording the time spent on each slide. Which feature will you suggest to her as a computing student?
A. Animate slide
B. Rehearse slide
C. Record slide show
D. Rehearse timings
23. Clipboard group in Excel application include
A. online pictures.
B. pivot table.
C. underline.
D. cut.
24. Rita was able to save and organize her contacts in email environment. Which feature enables her to perform that task?
A. Address book
B. Mailing list
C. Attachment
D. Mail book
25. Michael as a computing student wrote a step-by-step outline of program using informal language. This term in programming is termed as
A. pseudocode.
B. flowchart.
C. algorithm.
D. codes.
26. All the following multimedia tools can be combined to form a content into a single digital platform except
A. digital card.
B. audio.
C. graphics.
D. video.
27. Rose in the computer laboratory wants to create diagrams and graphics using predesigned layout in MS Word. The tools to perform this task can be obtained from
A. Clipboard.
B. Shapes.
C. SmartArt.
D. ClipArt.
28. The feature in MS Word that works with hyperlink to enable users jump to a specific location in a document is termed as
A. anchor.
B. link.
C. bookmark.
D. hypermedia.
29. Justice retrieves information sent to him by a friend from a server on the internet. This process is termed as
A. reading.
B. uploading.
C. downloading.
D. writing.

Turn over

30. Papino wants to insert and enhance the appearance of shapes in PowerPoint presentation. Which group under Insert tab will perform this task?
- Text group
 - Image group
 - Media group
 - Illustration group
31. A computing tutor in the computer laboratory typed text in a cell which extended to other cells in Excel. What appropriate feature would enable him to align the text into a multiple lines in a single cell?
- Wrap text
 - Text merge
 - Text wrap
 - Text direction
32. A student wants to find the synonyms of the word typed in Word Processing application. Which of the following features will enable him to perform this task?
- Thesaurus
 - Antonyms
 - Spelling checker
 - Search
33. A student was asked to remove a text from one cell to another in Spreadsheet application. Which of these mouse skills will enable him/her to perform the task?
- Single clicking
 - Double clicking
 - Copy and paste
 - Cut and paste
34. 17_{16} is a hexadecimal number. What is its binary equivalent?
- 10111
 - 10101
 - 10010
 - 11001
35. The fifth generation computers made use of which of these microprocessors?
- VLSI
 - ULSI
 - Vacuum tube
 - Transistor
36. Jayden as a computing student wants to create a blog for his school, the most important activity to consider is to
- create the account.
 - select the blog name and niche.
 - register with bluehost.
 - display advertisement of the blog.
37. In computing, folders are very important in data storage. Text files are stored in document folder while audio files are stored in
- recent folder.
 - videos folder.
 - pictures folder.
 - music folder.
38. Which one of the following will count the number of data in a range of cells?
- =Count(A1:B10)
 - =IfCount(1A:10B)
 - =AVGCount(A1:B10)
 - =CountSum(1A:B10)
39. The application of an Artificial Intelligence that simulates human brain function for learning and solving problems is the
- Virtual Reality.
 - Augmented Reality.
 - Neural Network.
 - Gamification.
40. A teacher instructed his students in the computer laboratory to make their presentation more engaging. Which of these tabs in PowerPoint environment will enable them to perform this task?
- Home tab
 - Insert tab
 - Transition
 - Animation

END OF PAPER