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# COMPUTER APPRECIATION & APPLICATIONS

December 2019

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## Time allowed

Three hours

## Instructions

- Write the question number next to each answer in your answer booklet.
- You are not required to rewrite the question in your answer booklet.
- Ensure that you pay particular attention to words in **bold**.

## Information

- Different questions may carry a different number of marks.
- Marks for each question are shown in [ ].

## Advice

- Read each question carefully before you start to answer it.
- Use the full time permitted and check all your answers.

## Materials

- No other computer equipment, notes or books are permitted.
- For those exams for which numeracy skills are required:
  - a) Non-programmable calculators are permitted.
  - b) Data tables are included at the back of the paper if necessary.



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ANSWER ALL SECTIONS OF QUESTION 1 AND ANY THREE QUESTIONS CHOSEN FROM 2 TO 6.

Question 1 carries 40 marks and each other question carries 20 marks.

Note carefully that where some questions require details of how hardware or software achieves its task, descriptions of user actions will NOT earn marks

1. (a) Define the term **ROM**. [2 marks]
- (b) Name **three** output devices. [3 marks]
- (c) State **two** advantages and **two** limitations of using voice recognition software. [4 marks]
- (d) Cell C55 in a spreadsheet contains the remainder of the figure in C12 divided by 2. Write the formula that would be in C55. [2 marks]
- (e) Define **data validation** and describe a business situation where this is used. [4 marks]
- (f) State the purpose of these features of a word processing package for a business:
- (i) Text effects, e.g. underline/centre/bold etc
  - (ii) Spell/grammar check
  - (iii) Standard phrases [3 marks]
- (g) Explain the purpose of **each** of these:
- (i) Utilities program
  - (ii) Anti-malware program
  - (iii) File compression program [6 marks]
- (h) List the **five** stages of the systems life cycle in correct sequential order. [6 marks]
- (i) Name the spreadsheet operators:
- (i) \* (asterisk)
  - (ii) / (forward slash)
  - (iii) \$ (dollar sign)
  - (iv) ^ (caret) [4 marks]
- (j) Describe the tasks carried out by these computer professionals:
- (i) A data processing manager
  - (ii) A programmer
  - (iii) A systems analyst [6 marks]
2. (a) Define these features of a graphics package when applied to a picture:
- (i) Enlarging
  - (ii) Rotating
  - (iii) Layering [3 marks]
- (b) Describe the differences and similarities between a **spreadsheet** and a **database**. [6 marks]

Question 2 continues overleaf

- (c) Copy the table and complete. Tick the most appropriate package for **each** task. [4 marks]

Task	Spreadsheet	Word-processing	Database	Desktop Publishing
Customer Information records				
Annual Shareholder Magazine				
Monthly Subscription Accounts				
Job contract				

- (d) A user has a spreadsheet. They wish to use a formula to determine the average value in a list of figures. All the figures are stored in column D between rows 6 and 57.

The result will be shown in row 60 of the same column.

- (i) State the cell reference of this calculation. [1 mark]
- (ii) Write a formula that makes use of a function to determine the average value for the given range. [2 marks]
- (e) Explain why a business might purchase a package rather than write their own. [4 marks]

3. 'Surveillance has become a greater part of modern society.' Discuss the role of computers and digital devices in this statement. [20 marks]

4. (a) Define the term '**intranet**'. [2 marks]
- (b) State **three** advantages of connecting a computer to a WAN. [3 marks]
- (c) Explain the role of an IP address on a network. [2 marks]
- (d) Explain the difference between a **star** and a **mesh** network topology. [4 marks]
- (e) Define the term '**network hub**'. [2 marks]
- (f) Describe how data is transmitted across a LAN. [5 marks]
- (g) Apart from star and mesh, name **two** other types of network topologies. [2 marks]



5. (a) Explain **each** of these methods of fact-finding before implementing a new system:
- (i) Examining documentation/research
  - (ii) Interviewing
  - (iii) Observing the enterprise in action
  - (iv) Questionnaires
- [8 marks]
- (b) Distinguish carefully between these diagrams. Which might be produced for a new system?
- (i) Systems flowchart
  - (ii) Program flowchart
  - (iii) Data flow diagram
- [6 marks]
- (c) Distinguish clearly between these:
- (i) Program
  - (ii) Data
  - (iii) Application
- [6 marks]
6. A company selling toys uses a database to maintain details of its stock.
- (a) Define the terms **field**, **file** and **record** and give an example of **each** for **this** company.
- [6 marks]
- (b) The staff want to know all the stock costing over a certain value, e.g. £15/\$20.
- (i) List **three** fields that would be needed on the database to perform **this** search.
- [3 marks]
- (ii) Describe how the search would be executed and a printout of the results produced.
- [4 marks]
- (c) The company needs to increase the retail price of all of the products listed in (b) above by 5%. Describe how the company would change the database values automatically.
- [7 marks]

**END OF QUESTIONS**