

The systems life cycle – 2023 ICT IGCSE 0417

1. **March/2023/Paper_0417/12/No.3**

State **three** items that should be included in the technical documentation of a computer system.

- 1
- 2
- 3

[3]

2. **March/2023/Paper_0417/12/No.17(a)**

Verification and validation are used to check data.

(a) Identify and describe **two** methods of verification.

Method 1

Description

Method 2

Description

[4]

4. **June/2023/Paper_0417/11/No.1**
A book has an ISBN which is 330247204X

Tick (✓) the most appropriate data type for the ISBN.

- A Numeric: integer
- B Text
- C Boolean
- D Date

[1]

5. **June/2023/Paper_0417/11/No.7**
A systems analyst has been asked to carry out an analysis of a company's current computer system.

(a) State three methods of analysing the current system.

- 1
- 2
- 3

[3]

(b) The systems analyst is working with a team to create some new software. The software documentation will be stored on the cloud.

Describe how the team can use the cloud to share the documentation.

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[4]

7. June/2023/Paper_0417/12/No.7

A student is creating a spreadsheet that includes a formula to check a number entered in a cell is between two values.

- The number is entered in cell A10 as an integer.
- If the number is between the two values then a message 'OK' is displayed, otherwise 'error' is displayed.

The formula the student has created is:

=IF(AND(A10>1,A10<32),"OK","error")

Data will be used to test the formula.

- (a) Identify **two** items of extreme test data the student should use and give the reason why this data was chosen.

Extreme test data 1

Extreme test data 2

Reason

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[3]

- (b) The student has entered an item of abnormal test data.

Explain why abnormal test data is used.

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[3]

10. Nov/2023/Paper_0417/12/No.4

A teacher is creating a database for a class library. The teacher types the details of each book into the database. The teacher has entered a number of records.

Book_number	Name_of_book	Publisher	Date_acquired	ISBN
1101	Build a computer	JB Books	02/11/2020	9780119192065
1012	IT terms	MMA Books	16/05/2021	0893603944
1414	Databases are fun	Cam Press	01/10/2009	0090116393

Identify and describe a validation check based on the data shown in the database table, which could be applied to the data as it is entered into each of the fields. Each validation check must be different.

Book_number

Validation check.....

Description.....

Date_acquired

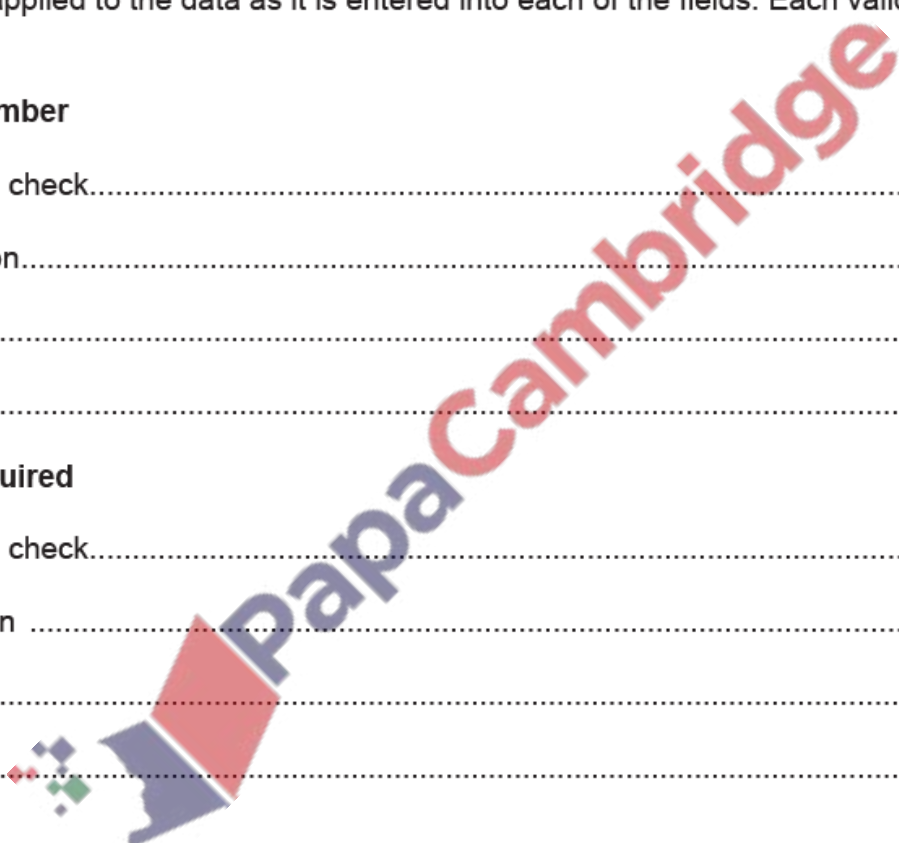
Validation check.....

Description

ISBN

Validation check.....

Description.....



12. Nov/2023/Paper_0417/12/No.10(a)

The manager of the Tawara Hotel has decided to computerise the hotel's room booking system. The new booking system will allow customers to book rooms online using an app on their smartphones.

The manager has employed a systems analyst who will carry out research into the current system by examining existing documentation and completed questionnaires from staff.

- (a) One item of information that the systems analyst will need to identify is problems with the current system.

State **three** other items of information that the systems analyst will need to identify.

- 1
- 2
- 3

[3]

13. Nov/2023/Paper_0417/13/No.1

Peter needs to create a validation check for product numbers. Three examples of product numbers he needs to check are:

977135120127916

976143148163921

845132120651166

Identify **two** validation checks he could use to check the numbers.

- 1
- 2

[2]

14. Nov/2023/Paper_0417/13/No.3(a)

A teacher is setting up a school shop. The teacher is setting up a spreadsheet to keep the accounts of the shop.

- (a) Fig. 3.1 shows a box containing 50 Choco Bars to sell in the shop. The information on the box will be entered into the spreadsheet.

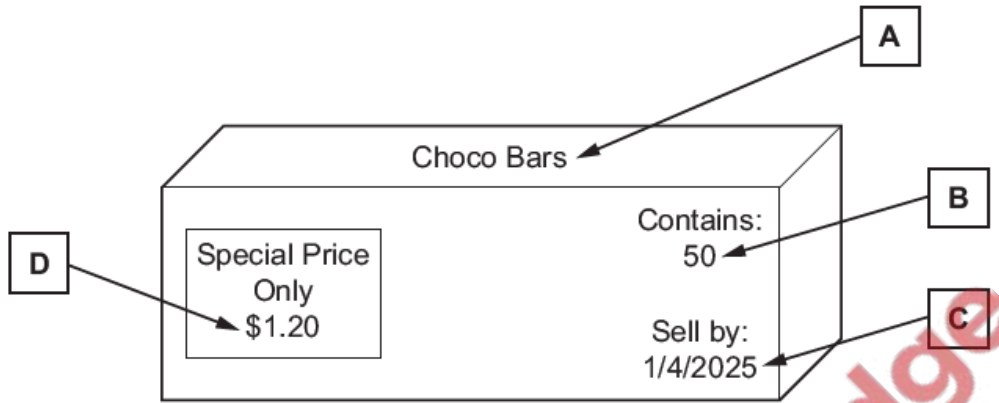


Fig. 3.1

State the most appropriate display format in the spreadsheet for each piece of data shown on the box. Your answer must be different in each case.

- A
- B
- C
- D

[4]



A school has employed a systems analyst to help update its computerised examination system.

- (a) The systems analyst researches the current system to see what will be required in the new system.

State the methods of researching the current system that are described:

(i) talking to the network manager and examinations officer about the current system
..... [1]

(ii) watching the users operating the current system
..... [1]

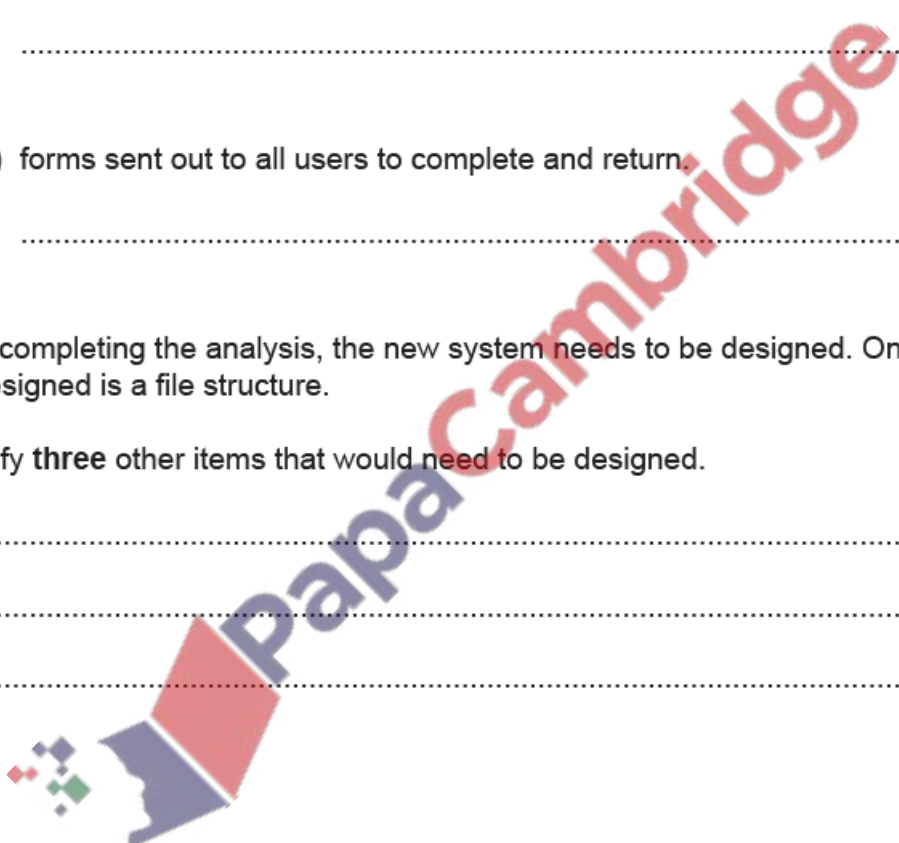
(iii) forms sent out to all users to complete and return.
..... [1]

- (b) After completing the analysis, the new system needs to be designed. One item that needs to be designed is a file structure.

Identify **three** other items that would need to be designed.

- 1
- 2
- 3

[3]



A form tutor at Tawara School is producing a database about the students in his class.

When the database is completed, it needs to be verified.

(a) Explain the importance of visual verification.

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[2]

(b) An example of the date of birth stored on the database is: 15/05/2009

Describe **three** validation checks that could be carried out on the date of birth.

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[6]

