

1. A teacher has asked you to use a word processor to create a table of some Indian cities together with their populations. The required layout is shown below

Populations of Indian cities			
City	Population	City	Population
Mumbai		New Delhi	
Bangalore		Ahmedabad	
Kolkata		Chennai	

- a. Describe how you would create this table in a word processor.

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- b. When you have completed the table the teacher asks you to add some extra cities. You will need to expand the table to add the extra cities. Describe how you can do this.

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2. Hot House Design require a new multimedia presentation for training sessions to be held in Hyderabad.

- (a) The trainers will need to show the presentation and produce handouts for participants. Name three output devices they would need.

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- 2.....
3.

3. A teacher wants to record the results of tests for each student in a spreadsheet. He sets test papers for both the theory (T) and practical (P) aspects of the ICT course. Part of the spreadsheet is shown below.

	A	B	C	D	E	F	G	H	I	J	K
2											
3	Student	T	P	P	T	T	P	P	Average mark	Grade	Total theory mark
4	Rajesh Patel	23	45	44	78	34	129	124			
5											
6											
7											
8											
9											
10											
11	Max marks	50	90	90	90	100	140	130			

- a. Write down a formula you would use in cell K4 which makes use of the labels in row 3, where appropriate, to add up the marks for the theory tests only.

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- b. Write down a formula that you would enter in cell I4 to calculate the average of Rajesh's results.

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- c. Describe how the teacher could format the average mark to 2 decimal places.

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	G	H	I	J	K	L	M	N	O
2									
3	P	P	Average mark	Grade	Total theory mark				
4	129	124	68.14					0	U
5								20	G
6								30	F
7								40	E
8								50	D
9								60	C
10								70	B
11	140	130						80	A

- d. The teacher wants the spreadsheet to calculate a student's grade automatically. He needs to calculate this from the average mark of all the results for the student.

Write down below a formula which should be entered into cell J4. It should use the calculated average mark. It will search for Rajesh's average mark in column N and return the corresponding grade. It should be easily replicated for other students.

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4. The Tawara Tea Company supplies tea to its customers. The company has created a spreadsheet to help its sales team to keep track of its orders. The spreadsheet has two worksheets, named Products and Orders. Part of the spreadsheet is shown below. All prices and costs are displayed in Indian Rupee ₹.

Worksheet: Products

	A	B	C
1	Tea code	Product name	Price per unit
2	272	Singbulli Champagne Oolong	₹ 16.00
3	347	Phuguri Supreme	₹ 16.00
4	348	Tumsong Supreme	₹ 16.00
5	349	Pussimbing Supreme	₹ 16.00
6	3	Phuguri	₹ 8.50
7	5	Goomtee	₹ 8.00
8	6	Risheehat	₹ 6.40
9	7	Makaibari Organic	₹ 4.90
10	8	Bannockburn	₹ 5.00
11	9	Chamong Organic	₹ 4.00

Worksheet: Orders

	A	B	C	D
1	Order ID	Tea code	Quantity ordered	Cost
2	124	272	24	
3	124	348	25	
4	124	6	105	
5	124	9	120	
6	124	349	30	
7	125	3	225	
8	125	5	220	
9	125	6	200	

- a. A salesman needs to create a formula to be placed in cell D2, in the Orders worksheet that finds the Price per unit of the tea, multiplies it by the Quantity ordered and then displays the result. (a) Write a formula that needs to be entered in cell D2. This formula will be replicated down to cell D9.

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The salesman has created a new worksheet called Receipt which automatically produces a receipt for each order.

Worksheet: Receipt

	A	B	C	D	E
1	Order ID	Tea code	Product name	Quantity ordered	Cost
2	124	272	Singbulli Champagne Oolong	24	₹ 384
3		348	Tumsong Supreme	25	₹ 400
4		6	Risheehat	105	₹ 672
5		9	Chamong Organic	120	₹ 480
6		349	Pussimbing Supreme	30	₹ 480
7				Total	₹ 2416

- b. Explain how he could format the Cost column (column E) to display the values in Indian Rupees as shown.

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5. Aadhya and her family are planning a visit to the Gir National Park and she is creating a web page about the destination. She has started writing some of the HTML but has made some mistakes.


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<html>
<!-- Visit to Gir National Park -->
<head>
</head>
<title>The Gir National Park</title>
<body>
<table style= "width:100%">
<tbody style="background-color: #9acd32">
<tr>
<td rowspan="2">
</td>
<td><h1>The Gir National Park</h1>
<h3>A National Park of Gujarat</h3>
</td>
<td><img scr="GIR-LOGO.JPG" alt="Logo for Gir National Park">
</td>
</tr>
<tr>
<td colspan="2" >This webpage is under construction.
</td>
</tr>
</tbody>
<table>
</body>
</html>

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Write down four mistakes which would prevent this markup from working properly. Your answers must be different in each case.

- 1
- 2
- 3
- 4

6.

Maria is the principal of the International Municipal school. She has employed Paulo, a systems analyst, to create a new database system to store records of her final year IGCSE students.

Examples of the details of the students which will be stored are:

Velia Grimaldi, A3058, Female, 161, Leaving

Giuseppe Campo, A3072, Male, 177, Staying on to 6th form

Nicola Donati, B3085, Female, 173, Staying on to 6th form

Giovanni Agnelli, C3102, Male, 172, Leaving

- (a) Complete the following table by entering the field names and **most appropriate** data type for each field.

For any numeric field, specify the type of number.

Field name	Data type
Name	
	Boolean
Height	

[7]

- (b) Paulo wishes to save storage space. He does not change the Name field, but decides that two other fields could have their data shortened.

Apart from the Name field, identify the two other fields and describe how the contents will be shortened.

Field 1.....

Shortened form 1.....

Field 2.....

Shortened form 2.....

[4]

(c) There is no key field set. Maria's secretary typed in the data to the database in this order:

Giuseppe Campo, A3072, Male, 177, Staying on to 6th form

Giovanni Agnelli, C3102, Male, 172, Leaving

Nicola Donati, B3085, Female, 173, Staying on to 6th form

Velia Grimaldi, A3058, Female, 161, Leaving

Maria can get the database back in to the original order by sorting the data using one field.

Write down the name of this field and the order in which it will need to be sorted.

Field.....

Order.....

[2]

7. Below is a spreadsheet showing contributions to a charity from different regions

	A	B	C	D	E	F	G	H	I
1	The Manta Conservation Project								
2	Regional analysis								
3	Region	RCode		Currency	Regional income		Date	Rcode	Amount
4	Africa	AF		Rand	ZAR 65.00		20/01/2016	AF	15.00
5	Asia	AS		Yuan	¥3,752.50		20/01/2016	AS	150.00
6	Australasia	AU		Dollar	\$142.50		20/01/2016	NA	2000.00
7	Europe	EU		Euro	€1,076.00		20/01/2016	EU	25.00
8	North America	NA		Dollar	\$2,240.50		21/01/2016	NA	120.50
9	South America	SA		Real	R\$75.75		21/01/2016	SA	50.00
10							21/01/2016	AF	50.00
11							21/01/2016	AS	25.00
12							21/01/2016	EU	15.00
13							22/01/2016	AU	140.00
14							22/01/2016	EU	1000.00
15							22/01/2016	NA	20.00
16							23/01/2016	SA	25.75
17							23/01/2016	EU	16.00
18							23/01/2016	NA	100.00
19							23/01/2016	AS	55.00
20							24/01/2016	AS	12.50
21							25/01/2016	AS	10.00
22							25/01/2016	AU	2.50
23							26/01/2016	EU	20.00
24							26/01/2016	AS	3500.00
25									
26							Number of donations		21

- (a) Cell E4 contains the formula =SUMIF(\$H\$4:\$H\$24,B4,\$I\$4:\$I\$24)

Using cell references explain what this formula does.

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[3]

- (b) What formula would you expect to see in cell E8?

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[3]

- (c) The formula in I26 only refers to the values in column I. Write down the formula you would expect to see in cell I26

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[2]

8.

The following is an external stylesheet which contains a number of mistakes.

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h1 {  
    colour: #000040;  
    font-family: Arial, sans serif;  
    font-size: 18 px;  
    text-align: center;  
}  
h2 {  
    color: 000000;  
    font-family: Times New Roman, serif;  
    font-size: 15px;  
    text-align: centre;  
}  
body {  
    background-image: url('j12backgd2.jpg');  
    background-color: #025fb4;  
}  
table {  
    border-collapse: collapse;  
    border-width: 4px;  
    border-style: solid;  
    border-color: #000000;  
}  
td {  
    border-width: 2px;  
    border-style: solid;  
    border-color: #000000;  
}
```

Write down **five** mistakes which would prevent this stylesheet from working properly and, for each, give the correction.

- 1
- 2
- 3
- 4
- 5

9.

Enrique has developed a new database system for a supermarket. Below is one record from the database. He needs to test the validation checks that he has developed for the system.

Barcode	Supplier_code	Contents	Price	Reorder_level	Weight(kg)
5012427141308	EZ123	Lobster Bisque	£2.72	100	0.4

- (a) He designed a length check for the **Barcode** field. However, when he entered the code 5012472141308 by mistake, the system still accepted it.

Describe the check he could have used to prevent this error.

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[2]

- (b) The **Reorder_level** for each item is never more than 100. He developed a validation check to make sure this is the case.

However, when he entered the number 100 it was rejected.

Name and describe the validation check he should use and explain why the number could have been rejected.

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[3]

- (c) He also designed a length check for the **Supplier_code** field. However, when he entered EZQ23 by mistake, the system still accepted it.

Describe how he could have prevented this error.

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[2]

- (d) For each field write down the **most appropriate** data type. For any numeric field specify the type of number.

Barcode.....

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Supplier_code.....

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Contents.....

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Price.....

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Reorder_level.....

.....

Weight(kg).....

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[6]

10.

Here is a spreadsheet showing the countries which have been selected to host the Commonwealth Games.

	A	B	C	D	E
1					
2	1930	Canada			
3	1934	England			
4	1938	Australia			
5	1950	New Zealand		Canada	4
6	1954	Canada		England	2
7	1958	Wales		Australia	5
8	1962	Australia		New Zealand	3
9	1966	Jamaica		Wales	1
10	1970	Scotland		Jamaica	1
11	1974	New Zealand		Scotland	3
12	1978	Canada		Malaysia	1
13	1982	Australia		India	1
14	1986	Scotland		South Africa	1
15	1990	New Zealand			
16	1994	Canada			
17	1998	Malaysia			
18	2002	England			
19	2006	Australia			
20	2010	India			
21	2014	Scotland			
22	2018	Australia			
23	2022	South Africa			
24					

- (a) Cells E5 to E14 contain the number of times each country has been selected to host the Commonwealth Games.

Write down the formula which should go in cell E5 so that it can be replicated down to cell E14.

..... [5]

- (b) Papua New Guinea are interested in bidding to host the 2026 Commonwealth Games. If they are successful the spreadsheet will need to be updated.

Apart from those in column E, write down the cell references of those cells which will need to change.

..... [3]