

SECTION 2 — 70 marks

Attempt ALL questions

12. A hardware company uses a relational database with the four tables shown below.

Customer	Item	Order	Sale
<i>Customer ID</i>	<i>Item ID</i>	<i>Order no</i>	<i>Order no *</i>
<i>Customer name</i>	<i>Description</i>	<i>Customer ID *</i>	<i>Item ID *</i>
<i>Customer address</i>	<i>Cost</i>	<i>Date</i>	<i>Quantity</i>
<i>Customer email</i>	<i>Image</i>		

- (a) Identify a suitable primary key for the **Sale** table. 1

- (b) Draw an *entity-relationship diagram* to illustrate the relationships between the four tables. 3

12. (continued)

(c) A report is produced each time a customer makes an order. An example is shown below.

Customer	<i>Mr D Gryffe</i>	Order no	<i>10728</i>
	<i>12 Gourock Crescent</i>	Date	<i>23/4/15</i>
Item	Number ordered		Cost
<i>Grease spray</i>	<i>1</i>		<i>£6.99</i>
<i>Bell wire (100m)</i>	<i>1</i>		<i>£8.50</i>
<i>Towel radiator</i>	<i>1</i>		<i>£121.50</i>
<i>Disposable mouse trap</i>	<i>2</i>		<i>£9.98</i>
Total			<i>£146.97</i>

This report is based on a query. State a list of the tables and fields that would be used in this query and any criteria that would be used to select the above data.

3

(d) The report includes a single total of £146.97 after the four subtotals. Describe how this can be done in the report.

3

