MODULE N DATABASES AND SQL · N5

SQL: ORDER BY, SUM, COUNT, AND and OR

Original practice questions · 21 marks · ~25 minutes · Cambridge 0478 syllabus 9.4

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **21 marks**. Write SQL with one clause on each line. Text values in a condition are written in quotation marks. All questions use the database table `RepairJob` shown below. All data on this sheet is made up.

A community repair café fixes household items for free and charges only for any parts it uses. It stores details of each repair job in a single database table called `RepairJob`.

JobID	Item	Category	Minutes	PartsCost	Fixed
R01	Desk lamp	Electrical	25	3.50	TRUE
R02	Winter coat	Textiles	40	2.00	TRUE
R03	Toaster	Electrical	50	8.00	FALSE
R04	Dining chair	Furniture	35	0.00	TRUE
R05	Road bike	Bicycle	45	6.50	TRUE
R06	Jeans	Textiles	15	1.00	TRUE
R07	Radio	Electrical	60	4.00	TRUE
R08	Folding bike	Bicycle	20	0.00	FALSE
R09	Curtains	Textiles	20	0.50	TRUE
R10	Kettle	Electrical	30	2.50	TRUE

`Minutes` is the time the repair took. `Fixed` is TRUE if the item was repaired.

1

Total: 4 marks

(a) Complete the table by writing the SQL keyword or keywords that match each description. **[4]**

Description	SQL keyword(s)
adds together the values in a numeric field for the records that match	
gives the number of records that match	
sorts the results so the largest value of a field comes first	
includes a record if at least one of two conditions is true	

2

Total: 5 marks

The café manager runs this SQL statement.

```
SELECT Item, Minutes
FROM RepairJob
WHERE Category = 'Electrical' AND Fixed = TRUE
ORDER BY Minutes DESC;
```

(a) Write the output from this SQL statement. **[3]**

(b) A volunteer says that changing `DESC` to `ASC` in this statement would change which repair jobs are output. **[2]**

Explain why the volunteer is wrong.

3

Total: 2 marks

(a) State the output from this SQL statement. **[1]**

```
SELECT COUNT(JobID)
FROM RepairJob
WHERE Category = 'Bicycle' OR Minutes > 40;
```

(b) State the output from this SQL statement. **[1]**

```
SELECT SUM(PartsCost)
FROM RepairJob
WHERE Category = 'Textiles';
```

4 Total: 4 marks

The café wants a list of the item and parts cost for every **Textiles** repair job that took **less than 30** minutes. The job with the lowest parts cost must be shown first.

(a) Complete this SQL statement. **[4]**

```
SELECT Item, PartsCost

FROM ....................................

WHERE Category = 'Textiles' .............. Minutes .......... 30

.......................................................... ;
```

5 Total: 3 marks

(a) Write an SQL statement to output the total number of minutes spent on all **Bicycle** repair jobs. **[3]**

6 Total: 3 marks

This SQL statement should output the number of **Electrical** repair jobs that were fixed. It contains **three** errors.

```
01 SELECT SUM(JobID)
02 FROM RepairJob
03 WHERE Category = Electrical
04 OR Fixed = TRUE;
```

(a) Identify the line number of each error and write the corrected line. **[3]**

Error 1 Line number ..... Corrected line

Error 2 Line number ..... Corrected line

Error 3 Line number ..... Corrected line

Total for this worksheet: 21 marks