



### Instructions for teachers

This mark scheme is a confidential document. The contents **must not** be disclosed to candidates until after results have been issued in August 2016. You **must not** discuss the contents of the mark scheme with anyone outside of your centre.

- Once you have seen the mark scheme for a task you **must not** give any further assistance.
- Show how and where the marks have been awarded.
- Use blue, black or pencil to mark (try to avoid using red or green).
- Complete one mark scheme booklet for each candidate.
- Annotate the tasks and/or mark scheme to show where/why the marks have been awarded.
- Only award a mark if **all** the bullet points have been met.

Field Name	Data Type	Description
JobID	AutoNumber	
CustomerID	Number	Foreign Key - Link to Customer ID in TblCustomer
SalesRepID	Number	Foreign Key - Link to Staff ID in TblStaff
Carpet ID	Number	Foreign Key - Link to Carpet ID in TblCarpet
Discount %	Number	
Area of Carpet	Number	
Perimeter	Number	
Fitting	Yes/No	✓4
Plywood	Yes/No	
Order Date	Date/Time	
Fitting Date	Date/Time	✓4

Field Name	Data Type
Customer ID	AutoNumber
Forename	Text
Surname	Text
Address	Text
Town	Text
PostCode	Text
Telephone	Text

  

Field Name
Product ID
ProductType
Price
Unit

- a (ii) 2 ✓ atomic data used for customer (zero marks if any below not atomic):
- separate forename and surname
  - separate address, town and postcode
- 3 ✓ all tables have sensible primary key
- 4 ✓ all of the following data types are used (zero marks if any item is missing or incorrect):
- perimeter = number
  - fitting = boolean (or equivalent)
  - fitting date = date/time
- 5  all of the following data types are used (zero marks if any item is missing or incorrect):
- telephone number = text
  - fitting time = date / time
  - price of anti-stain per square metre = number / currency

No evidence

MARKS:	
Centre	3
Internal Mod	
Final mark	
Max	4

- If using internal moderation, indicate the final mark.
- Transfer the marks to the front of the mark scheme.
- Check both the addition and the transcription.

MARKS:	
Centre	2
Internal Mod	3
Final mark	
Max	4



MARKS:	
Centre	2
Internal Mod	3
Final mark	3
Max	4



Transfer the total marks out of 80 into OCR Interchange by **15 May 2016**.

OCR will request a sample of work.

- Send work to moderator with CCS/160 (Centre Authentication Form) within three working days.
- Each script must have an individual mark scheme booklet.
- Make sure the work is packaged in accordance with regulations:
  - no binders, no plastic wallets;
  - one mark scheme for each candidate;
  - a cover sheet for each separate task;
  - clearly identify different parts of the tasks;
  - name of candidate, candidate number, name of centre and centre number on each task;
  - work securely fastened together.

If a centre believes that a candidate has created a correct and valid solution to a task that results in a different answer to that which is published within this mark scheme, then you are advised to contact OCR by emailing [general.qualifications@ocr.org.uk](mailto:general.qualifications@ocr.org.uk) to seek further advice.

**Task 1 – Spreadsheet [Total 27 marks]**

- 1 a(i)** Printed evidence shows:
- 1  ■ the worksheet is named *Costs*.
- a(ii)** Annotated evidence explains:
- 2  ■ how only the cells with the variables can be changed.
- a(iii)** Annotated evidence shows:
- 3  ■ how the Monthly rates can be implemented as a named range called *Season*.
- b(i)** Printed evidence shows:
- 4  ■ the *Quotation* worksheet is printed on one side of A4
- row and column headings are displayed
- the values were entered as specified:
- collection date is 05/08/2017;
  - return date is 01/11/2017;
  - van Type is D;
  - additional driver is selected.
- the following values are shown:
- collection day is Saturday;
  - return day is Wednesday;
  - total days hired is 89 days (12 weeks and 5 days).
- b(ii)** Annotated evidence explains:
- 5  ■ how the hiring period is checked to be a minimum of three days and a maximum of 90 days.
- Printed evidence shows:
- 6  ■ the rule has been tested with erroneous data for a hiring period of less than three days
- the rule has been tested with erroneous data for a hiring period greater than 90 days
- an appropriate error message is displayed.
- b(iii)** Annotated evidence shows:
- 7  ■ how the control for the van Type selection was set up
- 8  ■ how the control for the Additional driver was set up.
- b(iv)** *Note: The formulae printout must show row and column headings and formulae must not be truncated. Otherwise, no marks should be awarded.*
- Annotated evidence explains:
- 9  ■ how the day of the week for the collection date was calculated
- how the day of the week for the return date was calculated
- 10  ■ how the total days hired was calculated
- how the number of weeks and days on hire was calculated.

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>3</b>

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>7</b>

c The printed help sheet(s) include evidence of:

**Presentation requirements:**

- the help sheet(s) must be a stand-alone document
- titles and subtitles have been applied
- consistent use of text styles
- appropriate screenshots are visible and suitably cropped
- text not written as 'I did ...'
- no spelling errors.

**Content requirements:**

- how a macro or code was added to print the quotation worksheet
- how a macro or code was added to reset the collection date to today's date and the return date was cleared
- how buttons can be added and linked to macros/code.

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>3</b>

11–13 <input type="checkbox"/>	Tick	Marks	Requirement for marks
		3	All 6 presentation <i>requirements</i> and all 3 content <i>requirements</i> have been met.
		2	Any 5 presentation <i>requirements</i> and any 2 content <i>requirements</i> have been met.
		1	Any 4 presentation <i>requirements</i> and any 1 content <i>requirements</i> have been met.

d(i) Printed evidence shows:

- 14  ■ the Day, Date, Season, Cost per day, Discount and Cumulative cost headings are present and appear on each side of A4
- Day 89:
- date **01/11/2017**;
  - season **Low**;
  - cost per day **£90.00**;
  - discount **£45.00**;
  - cumulative cost **£7830.00** or **£8275.00**.
- Day 90 has no values present for Date, Season, Cost per day, Discount and Cumulative cost.

d(ii) Annotated evidence shows:

- 15  ■ how the header row is fixed in place when scrolling through the table (e.g. freeze panes).

d(iii) *Note: The formulae printout must show row and column headings and formulae must not be truncated. Otherwise, no marks should be awarded.*

Annotated evidence explains:

- 16  ■ how the date for Day 1 is calculated from the collection date on the *Quotation* worksheet
- how the date for Day 4 onward is calculated or a blank value displayed for any days over the total number of days on hire, e.g. IF

- 17  ■ how the season is calculated, e.g. CHOOSE, VLOOKUP
- 18  ■ how the cost per day is calculated, e.g. LOOKUP, IF
- 19  ■ how the discount is calculated, e.g. Nested IF  
*Note: Formulae that display the different levels of discount must be shown.*
- 20  ■ how the cumulative cost is calculated for Day 1  
■ how the cumulative cost is calculated for Day 2 onward.

**d(iv)** Annotated evidence explains:

- 21  ■ how the final value of the quotation (£7830.00 or £8275.00) on the *Quotation* worksheet was calculated.

**d(v)** Printed evidence explains:

- 22  ■ how both relative and absolute addressing have been used within one formula in the solution.  
*Note: A named range can be described as an absolute reference.*

**e(i)** Printed evidence shows:

- 23  ■ Day 28 in the *Breakdown* worksheet reads:
- date **01/09/2017**;
  - season **High**;
  - cost per day **£140.00**;
  - discount **£35.00**;
  - cumulative cost **£3640.00** or **£3780.00**.
- Quotation on the *Quotation* worksheet **£8552.50**.

**e(ii)** Annotated evidence shows:

- 24  ■ how one calculation is affected by changing the season of September from Mid to High  
e.g. the season of Day 28, which is 01/09/2017.

**f** Each test must be for a different formula

*Note: Only mark first three tests (zero marks if no table is used).*

- 25  ■ First test has a clear input **value(s)** with a clear **location(s)** identified for input **and** the output **value** is clearly identified **and** is logically correct based upon the input value(s).
- 26  ■ Second test has a clear input **value(s)** with a clear **location(s)** identified for input **and** the output **value** is clearly identified **and** is logically correct based upon the input value(s).
- 27  ■ Third test has a clear input **value(s)** with a clear **location(s)** identified for input **and** the output **value** is clearly identified **and** is logically correct based upon the input value(s).

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>9</b>

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>2</b>

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>3</b>

<b>Task 1 TOTAL MARKS</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>27</b>

**Task 2 – Graphics and word processing [Total 13 marks]**

2 a Annotated evidence of the creation of the logo shows:

**Content requirements:**

- the logo has been created from scratch
- the logo looks like a camper van
- the logo uses just one colour
- the logo was produced as a vector image
- the completed logo is grouped together
- the completed logo is exported as a bitmap with a transparent background.

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>3</b>

1–3 □	Tick	Marks	Requirement for marks
		3	All 6 content requirements are met.
		2	Any 5 content requirements.
		1	Any 4 content requirements.

**b(i)** The template design is hand-drawn  
*Note: No marks if not hand-drawn (scanned hand-drawn design is acceptable).*

- 4 □ The following items have been specified:
- the page layout is A5 portrait
  - the position of the business name
  - the position of the logo
  - the position of the business details.

**b(ii)** Printed evidence shows:

- 5 □
- the newsletter template implementation follows the hand drawn design in b(i)
  - business name 'Happy Campers' is present
  - business logo designed in a is present
  - business details:
    - address: Lakeside Park, Glenridding, Cumbria CA11 0US;
    - email: HappyCampers@progress-media.co.uk;
    - telephone: 01931 123456.
- 6 □ Annotated evidence shows:
- how the newsletter template was saved as template type file (*zero marks if not saved as a template*).

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>3</b>

**c(i)** Annotated evidence shows:

- 7  ■ how the names and addresses of the intended recipients from *mailing.csv* were embedded into the template
- how the recipients are filtered automatically to those whose contact status allows them to be contacted.

## Annotated evidence explains:

- 8  ■ how the newsletters are printed two per A4 sheet.

**c(ii)** Printed evidence shows:

- 9  *Note: No marks to be awarded if a filter has not been automatically applied in c(i).*
- four newsletters are printed
- Mrs Gail Force receives a 5% discount on a weekend break
- Miss Jemima Patel and Mrs Yvonne Windsor receive a 10% discount on a weekly booking
- Dr John Watson receives a 20% discount on a long-term booking.
- 10  ■ pictures for four categories of van are present and are labelled A, B, C and D
- the voucher appears at the bottom of the newsletter.

**c(iii)** Annotated evidence explains:

- 11  ■ how the percentage off is 5% for weekend breaks, 10% for weekly breaks and 20% for long-term breaks
- how merge fields have been used to implement the solution.
- 12  ■ how the date on the voucher is asked for once when the mail-merge process is run and then included within the voucher, e.g. FILLIN
- 13  ■ how a watermark of the logo was made to appear behind the voucher text.

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>7</b>

<b>Task 2 TOTAL MARKS</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>13</b>

**Task 3 – Website [Total 12 marks]**

**3 a(i)** A storyboard for the animated graphic has been created.

Evidence shows:

- 1  ■ a storyboard has been created and the four separate images *Scene 1*, *Scene 2*, *Scene 3* and *Scene 4* are present as separate panels
- the order of the images is clearly specified
  - the business logo appears at the top left-hand side
  - the business name is present.
- 2  ■ there is a clear time specification (in seconds or via frames and frame rate) for when each of the images will be visible
- the total time is 20 seconds and there is a continuous loop.

**a(ii)** Annotated evidence shows:

- 3  ■ each of the four images, *Scene 1*, *Scene 2*, *Scene 3* and *Scene 4* have been used.
- 4  ■ there is clear evidence to explain the technique used or applied to give the appearance of fading in/fading out between the images.
- 5  ■ the Happy Campers name appears throughout
- the company logo appears at the top left side of the graphic and is present throughout the whole animation
  - the total animation time is 20 seconds and it is set to repeat.

**b** Annotated evidence from the external CSS definition shows:

*Note: Zero marks if the CSS file is not external.*

- 6  the page layout is defined as:
- the page is set to 1000 pixels wide
  - the top of the page is set to background black #000000 and contains:
    - a header area 30 pixels high;
    - a title area 90 pixels high;
    - a navigation bar area 30 pixels high;
    - the background to the main content area is set to light green #F1FFEF.
- 7  text styles are defined as:
- a heading style 36 pixels, Arial font, bold
  - a paragraph text style 16 pixels, Arial font.

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>5</b>

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>2</b>

**c(i)** Printed evidence shows:

**Content requirements:**

- all pages follow a consistent layout (evidence of CSS application)
- all pages contain consistent fonts (evidence of CSS application)
- all pages contain the business name and logo in the title area
- all pages contain a navigation area with links to all the other pages in the site
  
- the Home page contains:
  - the business name: **Happy Campers**;
  - the business address: **Lakeside Park, Glenridding, Cumbria, CA11 0US**;
  - a written introduction to the business and its services;
  - a photo of the owner Guy Lines.
- the Gallery page contains:
  - the animated graphic from a(ii);
  - a written description of each type of van on hire.
- the Contact page contains:
  - a request form that will allow the following details to be entered: forename, surname, email address, type of interest;
  - a submit button.

8–10 □	Tick	Marks	Requirement for marks
		3	All 7 content requirements are met.
		2	Any 6 content requirements are met.
		1	Any 5 content requirements are met.

**c(ii)** Annotated evidence explains:

- 11 □ how the type of interest was set up as a drop-down box containing the options weekend hire, weekly hire and long-term hire.
- 12 □ how the submit button sends an email to HappyCampers@progress-media.co.uk.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	5

Task 3 TOTAL MARKS	
Centre	
Internal Mod	
Final Mark	
Max	12

**Task 4 – Database [Total 28 marks]****4 a(i)** Printed evidence shows:

- 1  ■ each table has an appropriate primary key identified
- table BOOKING contains:
- foreign key link to table CUSTOMER (e.g. CustomerID)
  - foreign key link to table VAN (e.g. VanID)
- VAN to BOOKING is 1:M
- CUSTOMER to BOOKING is 1:M

**a(ii)** Printed evidence shows:

- 2  ■ table CUSTOMER has eight records imported
- telephone number is stored as a text data type
- contact status is stored as a Boolean yes/no data type.
- 3  ■ table VAN has eight records imported
- four-wheel drive and awning are stored as Boolean yes/no values.
- 4  ■ table BOOKING has nine records imported
- booking date, collection date and return date are all stored as date data types.

**b(i)** Printed evidence shows:

- 5  ■ the main heading is 'Customer Details Form'
- sub-headings are used to group related fields together
- Ms Jessica Monteith's details are displayed with the following bookings:
- Registration LEG11T, Booking date 12/06/2015, Collection date 01/07/2015
  - Registration T005AST, Booking date 01/12/2015, Collection date 23/04/2016.

**b(ii)** Annotated evidence explains:

- 6  ■ how default navigation buttons and record selectors have been removed from the form.
- 7  ■ how customised buttons for record navigation have been added, e.g. previous, next, first, last.
- 8  ■ how the relevant fields for the booking details for the customer were selected
- how the booking details are made read only cannot be added or deleted.

**c(i)** Printed evidence shows:

- 9  ■ the details for each customer start on a new page
- Dr Donna McIntosh has bookings that still require payment:
- Booking date: 15/06/2015 Collection date: 01/07/2015;
  - Booking date: 16/07/2015 Collection date: 01/08/2015.
- Mr Ben Steer has **two** bookings that still require payment:
- Booking date: 01/03/2015 Collection date: 22/07/2015;
  - Booking date: 01/03/2015 Collection date: 01/06/2015.

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>4</b>

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>4</b>

**c(ii)** Annotated evidence explains:

- 10  ■ how a method for calculating which bookings have not been paid at least six weeks before the collection date was implemented.

**d(i)** Printed evidence shows:

- 11  ■ there is space to enter the collection date, the return date, the van to be booked (selected from a drop-down list) and the customer who is making the booking  
 ■ there is a title of 'Happy Campers – Bookings'  
 ■ a 'Process Booking' button is present.

**d(ii)** Annotated evidence shows:

- 12  ■ a rule has been set up to make sure that the return date comes after the collection date  
 ■ a test has been run that shows that a relevant error message is displayed when a return date on or before the collection date is entered.

**d(iii)** Annotated evidence explains:

- 13  ■ how the default date for the booking is set to the date on which the booking is being made  
 ■ how the payment field is set to False by default.
- 14  ■ the BOOKING table is automatically updated with the contents of the booking if it is successful (e.g. a sequence of action queries to append the booking form data to the BOOKING table)

- The booking table needs to be checked to see:
1. if there is an existing booking for the van on the system between the collection and return dates required.
- when there is an existing booking for the van:
2. does the collection date for the existing booking fall between the booking dates;
  3. does the return date for the existing booking fall between the booking dates;
  4. does the booking fall between the collection and return date for the existing booking.

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>2</b>

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>7</b>

15–17 <input type="checkbox"/>	Tick	Marks	Requirement for marks
		3	All 4 checks are made.
		2	Any 3 checks are made.
		1	Any 2 checks are made.

**e(i)** Printed evidence shows:

- 18  ■ a main menu has been implemented that contains:
- a clear title and instructions;
  - buttons to access the customer form, the non-payment report and the booking form.

**e(ii)** Annotated evidence explains:

- 19  ■ how navigation to one of the components in the system was implemented.

**f** Printed evidence shows:

- 20  ■ an archive table has been set up with the following fields:
- fields to identify the van, e.g. VanID;
  - fields to identify the customer, e.g. CustomerID;
  - Booking date;
  - Collection date;
  - Return date.
- the BOOKING table and ARCHIVE table have both been printed before and after the archive button was clicked
- the record for Ben Steer (CustomerID 2) for a Booking date 01/01/2013, Collection date 21/01/2013 and Return date 25/01/2013 is present in the printed ARCHIVE table.

- 21  ■ Annotated evidence explains:  
how bookings that are over two years old are copied into the ARCHIVE table when the archive routine is run.

- 22  ■ how bookings that are archived are automatically removed from the BOOKING table when the archive routine is run.

- 23  ■ how the process is run automatically via one click when the 'Archive' button on the main menu is clicked.

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>2</b>

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>4</b>

g A printed user guide contains evidence of:

**Presentation requirements:**

- the user guide is a stand alone document
- title page/front cover
- contents page with page numbers
- correct page numbers on user guide pages
- consistent style throughout for sub-headings and text
- appropriate screenshots that are visible and suitably cropped
- two from:
  - troubleshooting guide (at least two problems discussed);
  - glossary of terms (at least six terms);
  - index.
- no spelling errors.

24–25 □	Tick	Marks	Requirement for marks
		2	Any 8 presentation requirements are met.
		1	Any 7 presentation requirements are met.

**Content requirements:**

- how to load the database
- how to navigate between the system components
- how to view the customer details
- how to produce and print reports for customers who owe payments
- how to process bookings
- how to archive old bookings
- all screen shots of forms show the house style has been applied:
  - headings are in Arial, 18pt, black, bold;
  - sub-headings are in Arial, 14pt, black, bold;
  - all other text is in Arial, 12pt;
  - the form background colour is RGB (241, 255, 239) (Hex code #F1FFEF).

<b>MARKS:</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>5</b>

26–28 □	Tick	Marks	Requirement for marks
		3	All 7 content requirements are met.
		2	All 6 content requirements are met.
		1	Any 5 content requirements are met.

<b>Task 4 TOTAL MARKS</b>	
<b>Centre</b>	
<b>Internal Mod</b>	
<b>Final Mark</b>	
<b>Max</b>	<b>28</b>







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