OCR
Oxford Cambridge and RSA

AS GCE INFORMATION AND COMMUNICATION TECHNOLOGY

G062/01   Structured ICT Tasks

MARK SCHEME

Instructions for Examination's Officer:
Please inform the Head of ICT, and any
GCE assessors for this unit, that this
document has arrived in your centre.

MAY 2016

INSTRUCTIONS TO TEACHERS

*   This mark scheme must be kept secure.
*   Its contents may not be divulged to candidates until after the publication of results by OCR.

Centre name	Centre number
Candidate name	Candidate number

*   This mark scheme must be kept secure by the Examination's Officer and not given to the teacher until the teacher is ready to mark the work. The Examination's Officer can release to teachers the mark schemes for individual tasks if required for marking before other tasks are completed.
*   This mark scheme is intended as a working document for centres as well as an aid to moderation. Please use one copy **per candidate** and attach securely to each candidate's work.
*   If a candidate meets the requirements for a mark then tick the box next to that mark. You may use the numbers on the left-hand side of the tick boxes to cross-reference evidence on the candidate's work.
*   Indicate whole marks for each task in the box marked 'Centre' after each part. Some centres find it useful to identify the page numbers where evidence can be found next to the marking points in the mark scheme. Only whole marks can be awarded for each mark point; half marks cannot be used. Use blue or black ink only on this mark scheme booklet; do not use red or green ink.
*   Candidates must not make improvements to work once it has been marked.
*   Marks must be received by OCR and the moderator **no later than 15 May 2016.**
*   This document consists of **16** pages. Any blank pages are indicated.

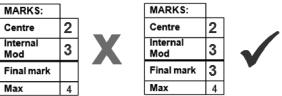| Task marks		Max
Task 1		27
Task 2		13
Task 3		12
Task 4		28
Final mark		**80**

OCR is an exempt Charity

Turn over

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.

- 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.

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 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*.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	3

   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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	7

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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	3

11–13 ❑	Tick	Marks	Requirement for marks
		3	All 6 presentation *requirements* and all 3 content *requirements* have been met.
		2	Any 5 presentation *requirements* and any 2 content *requirements* have been met.
		1	Any 4 presentation *requirements* and any 1 content *requirements* 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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	9

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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	2

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).

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	3

Task 1 TOTAL MARKS	
Centre	
Internal Mod	
Final Mark	
Max	27

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

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

Content requirements:

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	**3**

- 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.

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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	**3**

6 ❏ Annotated evidence shows:
- how the newsletter template was saved as template type file
(zero marks if not saved as a template).

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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	7

Task 2 TOTAL MARKS	
Centre	
Internal Mod	
Final Mark	
Max	13

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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	5

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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	2

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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	4

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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	4

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.

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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	2

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	7

15–17 ☐	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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	**2**

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.

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	**4**

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).

MARKS:	
Centre	
Internal Mod	
Final Mark	
Max	5

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.

Task 4 TOTAL MARKS	
Centre	
Internal Mod	
Final Mark	
Max	28

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