Pearson Edexcel

Mark Scheme (Results)

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Pearson Edexcel International GCSE In Information and Communication Technology (4IT1) Paper 02: Practical Paper

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Task	Answer	Marks
A1	**Graphics**	
a	**IMAGE ONE edited to**: 1. crop the image – bottom quarter removed (1) 2. make it black and white (1) 3. add the text *Digging* onto the image – must be spelt correctly but ignore case (1) **Original IMAGE ONE** **Cropped IMAGE ONE** 	3
b	*Image created:* 1. Correct dimensions (1920 x 1080 px) **shown** (16:9 ratio) (1) 2. Image includes **all** 3 shapes: rectangle (or square), circle (or oval) and arrow (1) 3. Image combines **any** shapes into an image that represents the theme and suitable for use as a slide background) (1) *4.* Image includes company name in a serif font (1) – *do not accept TLA*	4

c (i)	*Give **two** features of vector images* • Made up of lines/curves/points/shapes • Image can be enlarged without loss of quality/distortion • Image can be made smaller without loss of detail • Small file size/takes up little storage space • Based on mathematical equations • Uses co-ordinates	2
c (ii)	*Explain **one** reason why bitmaps are suitable for photographic images.* Bitmap images are detailed (1) because they have a high pixel count/have high resolutions (1) Bitmap images look realistic (1) as they represent lots of colours/can have a large colour depth (1)	2
	Total for Task A1	**11**

B1	Presentation	
a (i)	1. Slide(s) set to the correct size – 16:10 (1) 2. Slide title – size 40 **and** italic (1) 3. Footer – email address - medi@tla.net (1) 4. Footer – date **and** time (1)	4
a (ii)	*Slides 1 and 2:* 1. Both slides created from master slide (1) 2. Given text on Slide 1 (**We offer a wide range of services to transform your garden**) – do not penalise for spelling/case(1) 3. Given text has a dark background and white font (1) 4. 2 relevant images placed on presentation – either or both slides (1) 5. Action button on either slide – clear to see/obvious to the user (1) 6. Link to either slide 1 or slide 2 (1)	
(iii)	1. Correct title on at least one slide (WELCOME TO TLA – Slide 1 **or** SERVICES – Slide 2) – must be spelt correctly (1) 2. Animation on **DIGGING** image (1) 3. Animation lasts for 6 seconds (1) 4. Slide 1 is fit for purpose – text is in an appropriate position, images do not overlap text/other images, images are an appropriate size (1)	10
b	**Both** slides (fully visible) printed with speaker notes on Slide 1: *Welcome all delegates to the presentation* *Inform them of some of the services on offer including lawncare, makeover, mowing and hedge trimming.* Slides do not need to be printed on the same page.	1
c	*Give **two** advantages of using a master slide when creating a presentation.* Saves time when creating the slides Ensures consistency between slides Easily follows house style Once created they don't need to worry about placement and style	2
	Total for Task A2	**17**

<table>
<tr><th>A3</th><th>Database</th><th></th></tr>
<tr><td>a</td><td>Data entry form:

1. suitable title – includes the word Services (1) – ignore spelling and case

2. centre aligned fields (1)

3. light background – other than white (1)

4. automated date (1)</td><td>4</td></tr>
<tr><td>b</td><td>Data entry via form:

<table>
<tr><th>Field Name</th><th></th></tr>
<tr><td>Service ID</td><td>PL1</td></tr>
<tr><td>Service</td><td>Planting</td></tr>
<tr><td>Calculation of cost</td><td>Per hour</td></tr>
<tr><td>Aftercare advice</td><td>Yes</td></tr>
<tr><td>Discount available</td><td>No</td></tr>
</table>

Award 2 marks for 5 correct entries
Award 1 mark for 3 or 4 correct entries
Award no marks for 0, 1 or 2 correct entries

Award these marks from the form or table view.</td><td>2</td></tr>
</table>

Field:	Client ID	Payment method	Frequency of servi	Job ID	Service ID	Service charge
Table:	CLIENTS	CLIENTS	CLIENTS	JOBS	JOBS	SERVICES
Sort:						
Show:	☑	☐	☐	☑	☑	☐
Criteria:		"Cash"	"Weekly"			"Per hour"
or:						

A3 c

Query:

Correct 'criteria' row shown in design view 2

1. Award 2 marks for all 3 correct criteria – cash, weekly, per hour
2. Award 1 mark for 2 correct criteria
   Award no marks for 0 or 1 correct criteria

Result of Query:

Job ID	Client ID	Service ID
J47	WA90PC	LM1
J28	PH10HC	LM1
J13	HU09LD	LM1
J12	HA76JL	LM1
J29	PH10HC	WC1
J21	LA02LH	WC1
J02	DE45BV	WC1

3. Only correct fields 'shown' – **Job ID, Client ID** and **Service ID** – in any order (1)

4. Fields displayed in the correct order (1)

5. **Service ID** field sorted in ascending order (LM1 down to WC1) (1) 3

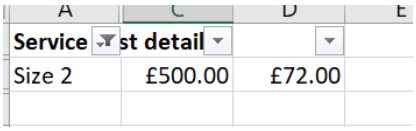
A3 d	Report: Query for report: Results of query: 1. Suitable title that includes reference to Lawncare **and** Makeover (1) 2. Shows **only Client ID**, **Payment Method** and **Surname** in that order (1) 3. The correct **5** records (1) 4. Descending order of **Client ID** (1) 5. No truncation (1)	5

Field:	Surname	Contact	Lawncare	Makeover	Mc
Table:	CLIENTS	CLIENTS	CLIENTS	CLIENTS	CL
Sort:					
Show:	☑	☐	☐	☐	
Criteria:			Yes	Yes	
or:					

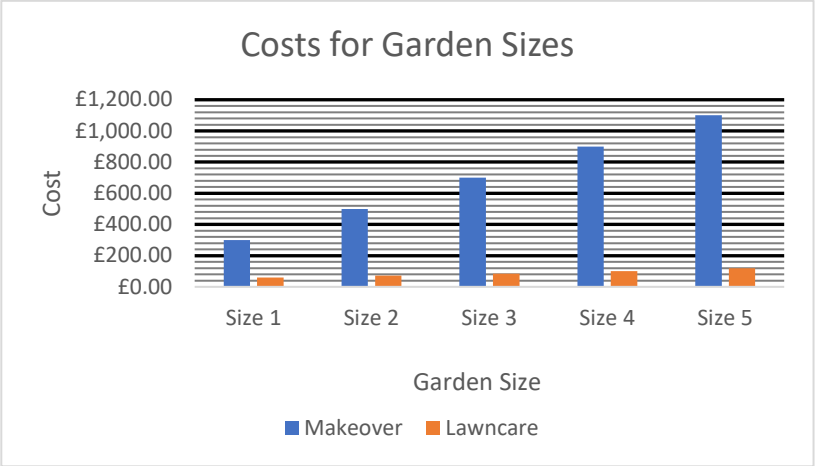
Client ID	Payment method	Surname
WH96CR	Bank Transfer	White
WA90PC	Cash	Walker
TR65CB	Bank Transfer	Tracey
LA02LH	Cash	Langley
JO03GR	Credit/Debit Card	Jones

A3 e (i)	*Give **one** reason why number is not used as a data type for a telephone number in a database.* The database does not recognise the leading 0 of the phone number Never likely to perform a calculation with a telephone number May have symbols such as + (which cannot be stored in a number field)	1
e (ii)	*Identify **one** foreign key in the linked tables.* Service ID Client ID	1
e (iii)	*Explain **one** reason why the **Contact** field in the **CLIENT** table uses lookup validation.* Less chance of errors (1) because the user can only choose from a list/does not have to key in the options (1)	2
e (iv)	*Explain **one** reason why the three tables in the **GARDENING SERVICES** database are related.* Reduces errors (1) because duplicate records will be prevented (1) Minimised redundant data (1) because they are linked by the keys (1) Saves time (1) because you don't have to key in the same information repeatedly (1) More accurate (1) as you only have to update in one table (1) You can delete one job (1) without a service or client being deleted (1)	2
	Total for Task A3	**22**

Task	Answer	Marks
B1	**Spreadsheets**	
	Garden Services Sales for Week 21 Client Name | Client ID | Service | Area m2 | Length in metres | Cost Mr White | Wh96CR | Makeover | Size 2 | | £500.00 | | Lawncare | Size 2 | | £72.00 | | Hedge Trimming | | 24 | £96.00 | | Cuttings Disposal | | 24 | £24.00 Cost of services: | £692.00 Tax amount: | £138.40 Cost of services including Tax: | £830.40 Total cost of services including discount: | **£705.84**	
a (i)	New row inserted with heading 'Garden Service Sales for Week 21'	1
a (ii)	Merge and centre cells A1:J1 (allow merge within range of column F to J) Fill merged cell with dark grey shading Award mark if the cell is any colour other than white	1 1
a (iii)	Formatting – font size – 18, white, italics Award size mark if the text in the merged cell is larger than the rest of the text.	1
a (iv)	Footer includes the (automated) date	1
b (i)	**Cost of Makeover/Lawncare** 1. Use of correct function (=VLOOKUP **or** =LOOKUP) for **either** Makeover Cost **or** Lawncare Cost 2. Use of correct lookup value for **either** Makeover Cost (D3) **or** Lawncare Cost (D4) 3. Use of correct table array (Details!A3:D7) / lookup vector array (Details!A3:A7) for **either** Makeover Cost **or** Lawncare Cost 4. Use of **both** correct column index numbers (3 **and** 4) **OR** use of **both** correct result vectors **OR** use of correct results vector (Details!C3:C7) and (Details!D3:D7) Examples: Makeover Cost =VLOOKUP(D3,DETAILS!A3:D7,3,0) Lawncare Cost =VLOOKUP(D4, DETAILS!A3:D7,4,0) Makeover Cost =LOOKUP(D4,DETAILS!A3:A7,DETAILS!C3:C7) Lawncare Cost =LOOKUP(D4,DETAILS!A3:A7,DETAILS!D3:D7) Accept use of absolute referencing Ignore named ranges and absence of final argument in VLOOKUP (,0)	1 1 1 1

B1 b (ii)	**Cost of Hedge trimming** =E5*DETAILS!C9 **Cost of Cuttings removal** =E6*DETAILS!C10	1 1
b (iii)	**Cost of services** =SUM(F3:F6) Allow F7 – blank row	 1
b (iv)	**Tax amount** =F8*DETAILS!D12 **Cost of services including Tax** =F8+F9	 1 1
b (v)	**Total cost of services including discount** =IF(F10>800, F10-F10*DETAILS!E14 – Do not allow 15% for DETAILS!E14 ,F10) or ,0) Allow follow through (for marking points 2 and 3)	 1 1 1
c	Currency showing £ with two decimal places **Total cost of services including discount** stands out from other monetary amounts – eg, colour, bold, larger size, border **£705.84** All data visible – cell contents, column labels (no truncation) – look for Client Name and Length in metres as these were truncated on the original copy of the spreadsheet Row and column headings	1 1 1 1
	Total for task B1	**21**
B2	Filtered to show only **Size 2** gardens and costs Displaying only the **Size** and **costs**  Do not penalise if there is data at the bottom of the of the spreadsheet (other costs)	1 1
	Total for Task B2	**2**

A	C	D	E
Service	st detail		
Size 2	£500.00	£72.00	

B3 a	**Chart**:  1. Suitable chart – bar chart showing Lawncare **and** Makeover for different sized gardens (1) 2. Title (eg Reference to Gardens/Garden size **and** Cost) **and** labels – x (Garden Size) and y (Costs) axis (1) 3. Legend/series names/labels – Makeover and Lawncare (1) 4. Displays major **and** minor gridlines (1)	4
	This table is used for Task 3bi and 3bii A1: Garden shed size in metres A3: Length, B3: Width, C3: Height A4: 4, B4: 3, C4: 3	
B (i)	*State the result of using the length (len) function on the contents of cell A1* 26 - accept 27 as there may be a space before the G Accept - e.g. 'provides the number of characters in the cell'	1
b (ii)	*Describe how the function =PRODUCT(A4:C4,2) works.* It multiplies the (three) cells together (1) then multiplies the answer by 2 (1) (A4*B4*C4) * 2 (4 x 3 x 3) x 2 Do not award a mark if the answer has been given.	2
b (iii)	*Give one benefit of using functions in spreadsheets.* To simplify the use of formulae/ to save time entering loads of data into a formula/ accept examples =A1+A2+A3+A4+A5 would be simplified to become =SUM(A1:A5) =(A1+A2+A3+A4+A5)/5 would be simplified to become =AVERAGE(A1:A5)	1

	Total for Task B3	**8**
B4	**Leaflet**	
a (i)	*Page 1* *Text*: 1. Do you need TLA? - set as sub-heading - suitable size and position (1) 2. Heading and subheading alignment changed – other than left (1) 3. Bullets (changed to) numbered bullets (1) 4. Line spacing for 'After the visit' paragraph changed to 1.5 (1) 5. Appropriate image added to the 'After the visit' paragraph to **the right of the text** (1) *Table*: 6. Row 1 merged and text centre aligned (1) 7. Row 1 shaded (1) 8. Row 4 split into two columns with the text 'Watering regime' (1) 9. Outside border set to thicker/different style line to the default (1)	9
(ii)	*Page 2*: 1. Appropriate image inserted in the right hand cell of the table - resized to fit, not heavily distorted (1) 2. Callout added in front of the inserted image with text describing the image – needs to have 'callout' format – e.g. pointing arrow/line (1) 3. Callout formatted – dark green background, white font colour (1) 4. Callout text – size 14 (1) 5. Automatic page numbers added to the footer (1)	5

B4b (i)	*Explain one improvement you would make to the leaflet.* Allow any suitable improvement (1) then a comment on why it would improve the leaflet (1) Examples: Add another image to page 2 (1) so there is a better balance between text and images/reduce the amount of wasted space (1) Change the colour/Use a better contrast for the green text on page 2 (1) because it is too light to be seen clearly/to improve accessibility (1) Make text sizes/line spacing/fonts/colours more consistent (1) so it aids readability/communication of the content (1)	2
b (ii)	*Give **one** reason why it is important to save work regularly.* So you don't lose your work if there is a problem with your computer Any changes to work are saved as you go along	1
b (iii)	*Explain **one** reason why it is important to use folder structures when organising work.* To ensure work relating to the same subject area is stored in the same place (1) because it is easier to find at a later date aids collaborative working others can understand the hierarchy of the structure (1)	2
	Total for Task B4	**19**

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