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Mark Scheme (Results)

January 2013

GCE Applied ICT (6953) Unit 3: The Knowledge Worker

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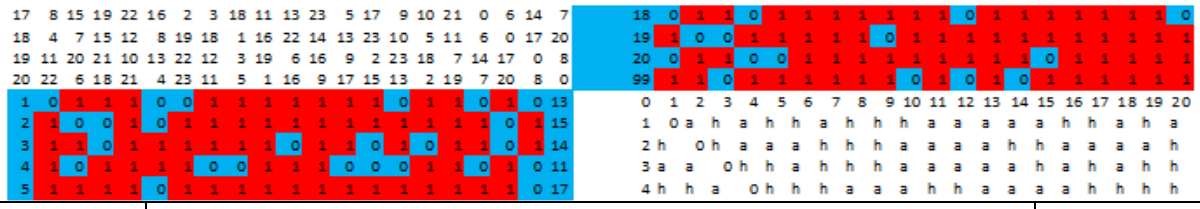
Activity	Answer	Mark
1	Understanding the situation	
	Any 12 of:	
A1	New Premier League team	(1)
A2	Organising away trips	(1)
A3	Tickets and Travel package	(1)
A4	14,678 registered supporters	(1)
A5	Rubicon Transport supply coaches	(1)
A6	£350 per coach	(1)
A7	**£1.50** fuel surcharge per **100** miles	(1)
A8	£75 extra driver surcharge.	(1)
A9	Ticket Prices **£30 to £54** (need both)	(1)
A10	Don't want **overall** profit but cannot make loss	(1)
A11	(Online) survey 94% sample	(1)
A12	4 team classifications (EG,MT, RD, PR)	(1)
A13	Weekdays fewer supporters	(1)
A14	Fewer supporters on longer trips (time or distance)	(1)
A15	More expensive package – fewer supporters.	(1)
A16	Extra driver required if trip over 9 hours	(1)
		12
B1	Survey : Who would buy tickets for the matches?	(1,1)
B2	Royal Automobile Club : Distances **and** Times	(1,1)
B3	Premier League Clubs : Ticket Prices	(1,1)
B4	Premier League : Fixtures	(1,1)
B5	Rubicon Transport (Coach company(s)) : Coach Costs (If individual costs given all must be listed.)	(1,1)
	Data source must be identified to access information marks. Award one mark in each case for correct data source	**10**
	Total Marks for Activity 1	**22**

Activity	Answer	Mark
2	Computer Modelling	
	Import Data **Columns C-AR, rows 19-27**	
A1	Fixtures imported correctly	(1)
A2	Haway imported correctly	(1)
		2
		
	Customer A, D, G-I, K-M, rows 2-8	
B1	Working formula in **D3** (=IF(B3="S",2,3))	(1)
B2	Formula replicated to **D8** (any formula replicated correctly)	(1)
B3	Working formula in **G3** (=Teams!H4) might use a =VLOOKUP(B4,Teams!$B$4:$H$20,3,false)	(1)
B4	Formula replicated to all cells (if working formula)	(1)
B5	Correct formula to calculate percentage in Cell **H3** =(G3-10)/5 If the candidate has divided by 100 then the mark can be given (assume that they have formatted the cell as percentage). However if they have divided by 100 in this column then they cannot have this is in column **I**	(1)
B6	Bonus for use of INT or ROUNDDOWN or QUOTIENT e.g. =INT((G3-10)/5)	(1)
B7	Formula replicated to all cells (if formula includes G3)	(1)
B8	Correct formula in cell **I3** =INT(F3*(1-H3/100)) ALTERNATIVE INT(F3*(100-H3)/100)	(1)
B9	Bonus for INT or ROUNDDOWN	(1)
B10	Formula replicated correctly (if formula includes F3 and H3)	(1)
B11	Cell **K3** correct formula =(J3-60)/15*6 If the candidate has divided by 100 then the mark can be given (assume that they have formatted the cell as percentage). However if they have divided by 100 in this column then they cannot have this is in column M	(1)
B12	INT or ROUNDDOWN or QUOTIENT used	(1)
B13	Replicated correctly (if formula includes J3)	(1)
B14	Correct Formula in **L3** =IF(K3<0,0,K3) =IF(K3<=0,0,K3) =IF(K3>0,K3,0) =IF(K3>=0,K3,0)	(1)
B15	Formula replicated correctly (if formula includes K3 at beginning and end)	(1)
B16	Working formula in cell **M3** =I3*(1-L3/100) ALTERNATIVE I3*(100-L3)/100	(1)

Activity	Answer	Mark
B17	ROUND or INT used. =ROUND(I3-I3*L3/100,0)	(1)
B18	Divided by 100 - award if evidence of percentage calculation Can be awarded in column K if /100 used there Cannot be awarded twice	(1)
B19	Formula replicated correctly (if formula includes I3 and L3)	(1)
		19
	Teams (Data) (Columns B,H, Q-S, rows 3-24)	
	Marks in this section can only be given if the formulae are in the model. It is not possible to get values of zeros without including values of less then 1p even though these will not be displayed.	
	Values for Havering Whitecaps (row 12) must be 0 to award marks (Very small residual values may occur via use of formulae – still award profit marks)	
C1	Total profit made	(1)
C2	Total profit <£4000	(1)
C3	Total profit <£2000	(1)
C4	Total profit <£1000	(1)
C5	Total profit <£500	(1)
C6	Total profit <£200	(1)
		6
	Printouts	
	All 3 printouts and no more in right order are required to be eligible for the following marks	
D1	Row and column headings and gridlines on all 3 worksheets	(1)
D2	Correct header & footer on all 3 worksheets	(1)
D3	Correct rows and columns printed on all 3 worksheets	(1)
		3
	Total Marks for Activity 2	**30**

<table>
<tr><td colspan="2">Activity</td><td>Indicative Content</td></tr>
<tr><td colspan="2">*3</td><td>In report format, not a memo or a letter. (Limited to Level 2 if not a report.)
Suitable title e.g. Report on the “Ticket and Transport” package model.
Introduction including a description of what Ticket & Transport package is and that the model is used to help set the prices.
Explanation of how to change the model so that it works for Stafford Sharks.
How to use instructions for the model
Evaluation of Data Sources
• Survey (Stafford Sharks supporters may be different to Havering (e.g. not as wealthy) so Joe should take another survey of his own supporters.
• RAC (Good source for distance as they are well known and in the transport business – leave alone).
• Premier League (Good source as they arrange fixtures leave alone but you will have to get them again next season.
• Premier League Clubs (Good source they should know the prices of their own tickets, leave alone but maybe check again next year)
• Rubicon Transport (Joe will need to replace these as they are probably a local firm who wouldn’t want to go all the way to Stafford Sharks to pick up their passengers, Joe would need to find his own quotes).
Illustrations (if included) :
• Relevant
• Used in explanations
• fit for purpose (embedded in report)
Conclusion.</td></tr>
<tr><td>Level</td><td>Mark</td><td>Descriptor</td></tr>
<tr><td>0</td><td>0</td><td>No rewardable content</td></tr>
<tr><td>1</td><td>1-5</td><td>The report shows how to change the team to Stafford Sharks and an explanation of how to use the model will be there but it would be difficult to understand. There may or may not be an evaluation of the data sources but the candidate will be unclear as to what the sources are let alone how good they are. The candidate may include diagrams but these will not be explained. The candidate uses everyday language and the response lacks clarity and organisation. Spelling, punctuation and the rules of grammar are used with limited accuracy.</td></tr>
</table>

2	6-10	The report shows how to change the team to Stafford Sharks and a clear explanation of how to use the model will be present and understandable. There will be an evaluation of the data sources but the candidate may not have identified them all and may be confused about how well they will suit the new model. The candidate may include diagrams which will be explained in the text. The candidate uses some specialist terms and shows some focus and organisation. Spelling, punctuation and the rules of grammar are used with some accuracy.	
3	11-15	The report shows how to change the team to Stafford Sharks and a clear explanation of how to use the model will be present and understandable. The explanations will be supported by clear diagrams explained in the text. There will be a clear evaluation of the data sources all of which have been identified. The candidate puts forward clear arguments as to whether they should be changed for the Stafford Sharks model. The candidate uses a range of appropriate specialist terms and shows good focus and organisation. Spelling, punctuation and the rules of grammar used with considerable accuracy.	
		Total Marks for Activity 3	**15**

4	Changing the model	
(a)	Transport Rates	
A1	Data inputted correctly	(1)
		1

	Rubicon Transport	Denman Coaches	Coleman Coaches	Joe Stobart
Basic Cost /Coach	£350	£410	£366	£380
Coach Capacity	33	52	35	40
Fuel Surcharge/100 miles	£1.50	£1	£0	£1.50
Extra Driver Supplement	£75	£50	£22	£32

(b)	Transport **Columns A, D, F, rows 4-23**	
	Check formula in cell **D4**. It should be =IF**(**$**B4**=0,0,INT**(**$**B4**/'Transport Rates'!**C$4**)+1)	
B1	Working formula =IF(B4=0,0,INT(B4/'Transport Rates'!C4)+1)	(1)
B2	**B4** column only absolute ($B4) **both cases**	(1)
B3	**C4** row only absolute (C$4)	(1)
B4	**Bonus for fully correct formula in D4** =IF($B4=0,0,INT($B4/'Transport Rates'!C$4)+1)	(1)
B5	Working formula in **F23** (with or without absolute addressing =IF(B23=0,0,INT(B23/'Transport Rates'!E4)+1	(1)
	Columns S-U, X rows 4-23	
B6	Correct formula in **S4** (=L4*D4)	(1)
B7	Correct formula in **U23** (=N23*F23)	(1)
B8	No SUM used	(1)
B9	Correct formula in **X4** (=MIN(R4:U4))	(1)
B10	Replicated correctly (**must** be correct formula in X4)	(1)
		10

(c)	Teams (Data)	
	Columns B, H, Q-S rows 3-24	
	Values for Havering Whitecaps (row 12) must be 0 to award marks (Very small residual values may occur via use of formulae – still award profit marks as per Activity 2)	
C1	Profit made	**(1)**
C2	Profit <£4000	**(1)**
C3	Profit <£3000	**(1)**
C4	Profit <£1000	**(1)**
C5	Profit <£200	**(1)**
C6	Profit <£100	**(1)**
C7	Profit <£50	**(1)**
		7
	Printouts	
	All 4 printouts and no more in right order are required to be eligible for the following marks	
D1	Row and Column headings and Gridlines on (All 4 worksheets)	**(1)**
D2	Correct header & footer(All 4 worksheets)	**(1)**
D3	Correct rows and columns printed(All worksheets)	**(1)**
		3
	Total Marks for Activity 4	**21**

SWW		
S1	Authenticating Work (All WP pages have task number, Name, centre number).	(1)
S2	Appropriate Structure (Pages in correct order & Folder assembled correctly)	(1)
	Total for SWW	**2**
	Total for Paper	**90**

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