

Mark Scheme Summer 2008

IGCSE

IGCSE ICT (4385)

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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.

Paper 1F

Question Number	Answer	Mark
1	B. Printer, Output, To produce hard copy/ Print document C. Joy Stick, Input, Navigating on a screen D. Camera, Input capture image	3 marks 3 marks 3 marks (9)

Question Number	Answer	Mark
2(a)	OMR	(1)

Question Number	Answer	Mark
2(b)	To cross check entry 1 m In case manual entry is needed 1 m Validation/ verification 1m Example of above 1m	(2)

Question Number	Answer	Mark
2(c)	fewer keying mistakes/ More reliable faster data entry/ Quicker easier data entry/ less work from clerks etc direct input to computer system etc prevents key logging (1m each for two correct answers)	(2)
		Total 5 marks

Question Number	Answer	Mark
(3)(a)	Local Area network / LAN/ Intranet	(1)

Question Number	Answer	Mark
3(b)	Three from <ul style="list-style-type: none"> • Sharing expensive resources • all doctors see all records • easier to amend/ update/ delete records • receptionist make appointments for all doctors etc • network licence is cheaper • better communication • allows multiple access • provides a centralised record system • less work for receptionist • receptionist will be more organised 	(3)

Question Number	Answer	Mark
3(c)	Bus Star Star	(3)

Question Number	Answer	Mark
4(a)	A program or piece of code that is loaded onto a computer (1m) without the user knowledge and runs against their wishes (1m) Malicious code (1m)	(2)

Question Number	Answer	Mark
4(b)	The games software downloaded carried the virus (1m) . When the student ran/ installed the software the virus infected the pc (1m)	(2)

Question Number	Answer	Mark
4(c)(i)	Run antivirus software (1m) Take to specialist (1m)	(1)

Question Number	Answer	Mark
4(c)(ii)	Make sure antivirus software is always active (1m) don't visit games sites (1m)	(2)

Question Number	Answer	Mark
5(a)	Customer ID (1m) –Only unique identifier/ some customers will have same name (1m)	(2)

Question Number	Answer	Mark
5(b)	a form of validation (1m) <ul style="list-style-type: none"> • ensures correct sequence of characters (1m) • limits data entry errors (1m) (max 2m) 	(2)

Question Number	Answer	Mark
5(c)	<p>Encryption</p> <ul style="list-style-type: none"> • data cannot be read as it is in a code (1m) • a key is needed to unlock the code (1m) <p>Firewalls</p> <ul style="list-style-type: none"> • Prevent illegal access/ hacker to or from a private network (1m) • can be driven by software, hardware or a combination of both (1m) <p>Passwords</p> <ul style="list-style-type: none"> • Prevent access to sensitive/ unauthorised data (1m) 	

	<ul style="list-style-type: none"> Users can be made to change these frequently ensuring data is protected etc (1m) 	(6)
Question Number	Answer	Mark
6(a)	C or C D B B D E E A A (Any 5 correctly placed 1m each)	(5)

Question Number	Answer	Mark
6(b)	All fields present 2m 3 fields present 1m less than 3 fields 0m Ease of use features 2 or more 2m 1 feature 1m Looks like a data entry form 1m	(4)

Question Number	Answer	Mark
6(c)	Typical Any acceptable date (1m) Extreme On the edge of a given range (1m) Invalid 13 th month/ year in future/ letters in field etc (1m)	(3)

Question Number	Answer	Mark
7	Enables Application software to communicate with hardware (1m) Click a printer icon in wp document will print (1m) Manage transfer of data (1m) Data from keyboard/ mouse/ scanners etc into pc (1m) Manage system security (1m) Allocate rights to users (1m) Match software to task (1m) Memory allocation (1m) File management (1m) Runs start up programs (1m) Provides safe shut-down (1m)	(6)

Question Number	Answer	Mark
8(a)	Changes in technology/ hardware/ software related / problems with old system (1m each) (max 2marks)	(2)

Question Number	Answer	Mark
8(b)	Fact finding/ feasibility study (1m each) (max 2marks)	(2)

Question Number	Answer	Mark
8(c)	Any two from – <ul style="list-style-type: none"> • How to load software • how to save and print, • how to cope with error messages • help desk information (1m each) (max 2marks)	(2)

Question Number	Answer	Mark
8(d)	System specification / operating system details / software specifications / file/ table sizes / validation rules etc (1m each) (max 2marks)	(2)

Question Number	Answer	Mark
8(e)	New system fails (1m) - old system still available (1m) compare old and new results (1m) to find errors (1m)	(2)

Question Number	Answer	Mark
9(a)(i)	Transaction file –holds temporary data for that day's transactions (1m)	(1)

Question Number	Answer	Mark
9(a)(ii)	Master file –Most complete and up to date file (1m)	(1)

Question Number	Answer	Mark
9(b)	Shown attached to Stock control process (1m) Data flow correct (1m)	(2)

Question Number	Answer	Mark
9(c)	Minimum re-order stock level would be set in the stock file (1m) When details from the daily sales file are run (1m) a reorder list would be printed for all those items at (or below) minimum reorder level (1m) Automatic re-order (1m)	(3)

Question Number	Answer	Mark
10(a)	Any two from- <ul style="list-style-type: none"> • Modem/ isdn • Broadband/ internet connection • Communication software <p style="text-align: center;">(2 marks)</p>	(2)

Question Number	Answer	Mark
10(b)	<i>Any three from-</i> <ul style="list-style-type: none"> • <i>larger customer base</i> • <i>24-7 trading</i> • <i>lower staffing</i> • <i>lower costs etc</i> <p style="text-align: center;">(1m for each acceptable answer)</p>	(3)

Question Number	Answer	Mark
10(c)	Difficult to see product give out credit card details on line goods may not be delivered Could be a long delivery time <p style="text-align: center;">(any two for 2marks)</p>	(2)

Question Number	Answer	Mark
10(d)	check credit limit on card check that the card is within its validity dates check the security number check that the card has not been stopped Check by third party (PayPal etc) <p style="text-align: center;">3points (3marks)</p>	(3)

Question Number	Answer	Mark
10(e)	Any three from <ul style="list-style-type: none"> • hyperlinks • hover buttons • index pages • point and click • site history • favourite sites etc <p style="text-align: center;">(3points 3marks)</p>	(3)

Question Number	Answer	Mark
11(a)	No health hazard to humans (1m) Accurate results (1m) Direct capture of data (1m) Cheaper than paying wages (1m) Any reasonable answer for 1m (Max 3marks)	(3)

Question Number	Answer	Mark
11(b)	This will help to show what time of day traffic congestion is at its worst (1m) and also to indicate how long these periods last (1m). It will enable graphs and charts to be produced for pictorial representation (1m) (Max 2marks)	(2)

Question Number	Answer	Mark
11(c)(i)	Spreadsheet/ database 1m	(1)

Question Number	Answer	Mark
11(c)(ii)	Predictions/ reports/ searches (1m)	(1)

Question Number	Answer	Mark
11(d)(i)	Any motion sensor/ laser sensor/ pressure sensor(1m)	(1)

Question Number	Answer	Mark
11(d)(ii)	From computer clock (1m)	(1)

Question Number	Answer	Mark
12	Pass Fail Borderline Fail Borderline (1m for each correct answer)	(5)

Paper 2H

Question Number	Answer	Mark
1	Enables Application software to communicate with hardware (1m) Click a printer icon in wp document will print (1m) Manage transfer of data (1m) Data from keyboard/ mouse/ canners etc into pc (1m) Manage system security (1m) Allocate rights to users (1m)	(6)

Question Number	Answer	Mark
2(a)	Changes in technology/ hardware/ software related (1m each max 2m)	(2)

Question Number	Answer	Mark
2(b)	Fact finding/ feasibility study (1m each max 2m)	(2)

Question Number	Answer	Mark
2(c)	Any two from – <ul style="list-style-type: none"> • How to load software • how to save and print • how to cope with error messages • help desk information (1m each max 2m)	(2)

Question Number	Answer	Mark
2(d)	System specification / operating system details / software specifications / file / table sizes / validation rules etc (1m each max 2m)	(2)

Question Number	Answer	Mark
2(e)	New system fails (1m) Old system still available (1m) Easier to compare old and new results (1m) to find errors(1m)	(2)

Question Number	Answer	Mark
3(a)(i)	Transaction file – holds temporary data for that day's transactions (1m)	(1)

Question Number	Answer	Mark
3(a)(ii)	Master file – Most complete and up to date file (1m)	(1)

Question Number	Answer	Mark
3(b)	Shown attached to Stock control process (1m) Data flow correct (1m)	(2)

Question Number	Answer	Mark
3(c)	Minimum re-order stock level would be set in the stock file (1m) . When details from the daily sales file are run (1m) a reorder list would be printed for all those items at minimum reorder level (or below) (1m)	(3)

Question Number	Answer	Mark
4(a)	Any two from- Modem/ isdn/ Broadband/ internet connection Communication software (2m)	(2)

Question Number	Answer	Mark
4(b)	<i>Any three from</i> <i>larger customer base</i> <i>24-7 trading</i> <i>lower staffing costs etc</i> (1m for each acceptable answer)	(3)

Question Number	Answer	Mark
4(c)	Difficult to see product give out credit card details on line goods may not be delivered - (two for 2m)	(2)

Question Number	Answer	Mark
4(d)	check credit limit on card check that the card is within its validity dates check the security number check that the card has not been stopped 3points for (3m)	(3)

Question Number	Answer	Mark
4(e)	Any three from <ul style="list-style-type: none"> • hyperlinks • hover buttons • index pages • point and click • site history • favourite sites etc (3points 3m)	(3)

Question Number	Answer	Mark
5(a)	No health hazard to humans (1m) Accurate results (1m) Direct capture of data (1m) Any reasonable answer for 1m – Max 3m	(3)

Question Number	Answer	Mark
5(b)	This will help to show what time of day traffic congestion is at its worst (1m) and also to indicate how long these periods last (1m) . It will enable graphs and charts to be produced for pictorial representation (1m) – Max 2m	(2)

Question Number	Answer	Mark
5(c)(i)	Spreadsheet/ database 1m	(1)

Question Number	Answer	Mark
5(c)(ii)	Predictions/ reports/ searches (1m)	(1)

Question Number	Answer	Mark
5(d)(i)	Any motion sensor/ laser sensor/ pressure sensor (1m)	(1)

Question Number	Answer	Mark
5(d)(ii)	From computer clock (1m)	(1)

Question Number	Answer	Mark
6	Pass Fail Borderline Fail Borderline (1m for each correct answer)	(5)

Question Number	Answer	Mark										
7(a)	<table border="1"> <thead> <tr> <th>Device (1m)</th> <th>Reason (1m)</th> </tr> </thead> <tbody> <tr> <td>Swipe card reader</td> <td>To allow customers to pay</td> </tr> <tr> <td>POS terminal</td> <td>To register sales/ stock control</td> </tr> <tr> <td>Tracker ball</td> <td>Navigate menus</td> </tr> <tr> <td>Digital camera</td> <td>To take pictures of goods to show in a catalogue</td> </tr> </tbody> </table> <p>Accept any valid device (1m) with reason (1m)</p>	Device (1m)	Reason (1m)	Swipe card reader	To allow customers to pay	POS terminal	To register sales/ stock control	Tracker ball	Navigate menus	Digital camera	To take pictures of goods to show in a catalogue	(6)
Device (1m)	Reason (1m)											
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Question Number	Answer	Mark
7(b)	Sales are entered into a laptop/ pc (1m) the information is sent to head office/ base using radio technology/ viable method described (1m) where the central file is updated/ amended/ stock control implied etc (1m)	(3)

Question Number	Answer	Mark									
8(a)(i)		(1)									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">0213 4001 Singh:Gurjit</td> <td style="width: 50%;">[0][10] [20] [30] [40] [50] [60] [70] [80][90] [100]</td> <td style="width: 20%; text-align: right;">46</td> </tr> <tr> <td></td> <td>[0] [1] [2] [3] [4] [5] [6] [7] [8] [9]</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: right;">(1m)</td> </tr> </table>			0213 4001 Singh:Gurjit	[0][10] [20] [30] [40] [50] [60] [70] [80][90] [100]	46		[0] [1] [2] [3] [4] [5] [6] [7] [8] [9]		(1m)		
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	[0] [1] [2] [3] [4] [5] [6] [7] [8] [9]										
(1m)											

Question Number	Answer	Mark
8(a)(ii)	Mention OMR/ OCR (1m) Describe process (1m) Mark assimilation (1m) (Max 2m)	(2)

Question Number	Answer	Mark
8(b)	Compare score on sheet (1m) with data entered in the system (1m) (accept any verification that will work in this context)	(2)

Question Number	Answer	Mark
9	Server shown (1m) Correct topology (1m) 6 pcs (1m) Wireless hub shown (1m) Receivers indicated (1m) Printer shown correctly (1m)	(6)

Question Number	Answer	Mark
10(a)	Infected by a 'Worm' (1m) within download (1m) and released when software is used (1m)	(3)

Question Number	Answer	Mark
10(b)	Firewall - (hardware)(1m) e.g. built into routers etc (1m) Firewall - (software)(1m) Installed directly on the pc to be protected (1m)	(4)

Question Number	Answer	Mark
11(a)		(7)

Field	Data Type	Field length
Customer ID	Alpha numeric/ character	4
Surname	Character	10
Forename	Character	10
Address	Alpha numeric/ character	20
Postcode	Alpha numeric/ character	8
Approved	Character/ Logic	1
Credit level	Currency/ Numeric	5-8

Data type and plausible field length for each field (1m for each correct pair)

7 marks

Question Number	Answer	Mark
11(b)	<p>Presence Check (1m) – ensure field is not blank (1m) so that customer can trade(1m)</p> <p>Length Check (1m) to ensure the correct number of digits have been entered (1m) if incorrect this could prevent a customer from trading at the right credit level (1m)</p> <p>Range Check (1m) To ensure a number is not too large (1m) Customer could be given too large a credit level (1m)</p> <p>Any valid check (1m) with reason (1m) and expansion (1m)</p>	(3)

Question Number	Answer	Mark
12 (a)	<p>E</p> <p>F B</p> <p>C</p> <p>D H</p> <p>G A</p> <p>(1m for each correct answer)</p>	(8)

Question Number	Answer	Mark
12 (b)	<p>Sort forename</p> <p>Sort surname</p> <p>Sort class</p> <p>Search class</p> <p>Print</p>	(5)

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