

# Mark Scheme

## January 2009

Principal Learning

Information Technology  
Technology in Organisations  
Level 1 (IT101)

The Potential of Technology  
Level 2 (IT201)

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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.


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# Information Technology


## Technology in Organisations Level 1 Unit 1

Question Number	Answer	Mark																				
1(a)		(4)																				
1(b)	Debit card	(1)																				
1(c)	To save costs by reducing the number of staff	(1)																				
1(d)	Withdraw money	(1)																				
1(e)	Change your password regularly	(1)																				
2(a)	<table border="1" data-bbox="395 1594 1161 1859"> <thead> <tr> <th>Components</th> <th>Input</th> <th>Output</th> <th>Storage</th> </tr> </thead> <tbody> <tr> <td>Printer</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>Keyboard</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Monitor</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>CD</td> <td></td> <td></td> <td>X</td> </tr> </tbody> </table>	Components	Input	Output	Storage	Printer		X		Keyboard	X			Monitor		X		CD			X	(4)
Components	Input	Output	Storage																			
Printer		X																				
Keyboard	X																					
Monitor		X																				
CD			X																			

Question Number	Answer	Mark
2(b)	Application software	(1)

Question Number	Answer	Mark
2(c)	letter	(1)

Question Number	Answer	Mark
2(d)	Communication software	(1)

Question Number	Answer	Mark
3(a)		(1)

Question Number	Answer	Mark
3(b)	Item code	(1)

Question Number	Answer	Mark
3(c)	Barcodes reduce theft from supermarkets	(1)

Question Number	Answer	Mark
3(d)	increase sales	(1)

Question Number	Answer	Mark
3(e)	less staff are needed	(1)

Question Number	Answer	Mark
3(f)	touch screen	(1)

Question Number	Answer	Mark								
4(a)	<table border="1"> <tr> <td>Spam</td> <td>email filter</td> </tr> <tr> <td>Hacking attempts</td> <td>firewall</td> </tr> <tr> <td>Viruses</td> <td>Anti virus software</td> </tr> <tr> <td>Anti social material</td> <td>filter software</td> </tr> </table>	Spam	email filter	Hacking attempts	firewall	Viruses	Anti virus software	Anti social material	filter software	(4)
Spam	email filter									
Hacking attempts	firewall									
Viruses	Anti virus software									
Anti social material	filter software									

Question Number	Answer	Mark
4(b)	<ul style="list-style-type: none"> <li>▪ on the internet</li> <li>▪ email address</li> <li>▪ upload</li> <li>▪ debit card</li> </ul>	(4)

Question Number	Answer	Mark
4(c)	It is illegal to download music without the owner's permission	(1)

Question Number	Answer	Mark
4(d)	access new markets.	(1)

Question Number	Answer	Mark
4(e)	<ul style="list-style-type: none"> <li>▪ wider</li> <li>▪ revenue</li> <li>▪ reduce</li> <li>▪ sales</li> </ul>	(4)

Question Number	Answer	Mark
5(a)	can work more accurately than a human	(1)

Question Number	Answer	Mark
5(b)	sensor	(1)

Question Number	Answer	Mark
5(c)	plotter	(1)

Question Number	Answer	Mark
5(d)	<ul style="list-style-type: none"> <li>▪ The equipment can work in dangerous conditions.</li> <li>▪ The quality of output is more consistent.</li> <li>▪ The equipment can be reprogrammed to handle a new production run.</li> <li>▪ Fewer staff are needed.</li> </ul>	(4)



## Information Technology

### The Potential of Technology Level 2 Unit 1

Question Number	Answer	Mark
1(a)	The bank will have access to a larger customer base.	(1)

Question Number	Answer	Mark
1(b)	Withdraw cash 24 hours a day.	(1)

Question Number	Answer	Mark
1(c)	Install a firewall and regularly change your password.	(1)

Question Number	Answer	Mark
1(d)	Forward the email to the bank and then delete it.	(1)

Question Number	Answer	Mark
1(e)	<ul style="list-style-type: none"> <li>▪ debit</li> <li>▪ chip</li> <li>▪ encrypted</li> <li>▪ network</li> </ul>	(4)

Question Number	Answer	Mark
1(f)	Customer convenience and a reduction in the banks operating costs.	(1)

Question Number	Answer	Mark
1(g)	To identify which ATMs are fully utilised and where additional machines may be required	(1)

Question Number	Answer	Mark
2(a)(i)	Increase sales by targeting advertising	(1)

Question Number	Answer	Mark
2(a)(ii)	are given special offer vouchers, to encourage them to return to the store.	(1)

Question Number	Answer	Mark
2(b)	magnetic stripe reader	(1)

Question Number	Answer	Mark
2(c)	Data Protection Act	(1)

Question Number	Answer	Mark
2(d)	Supermarkets need fewer staff. Customers spend less time queuing.	(1)

Question Number	Answer	Mark
2(e)	<ul style="list-style-type: none"> <li>• EPOS systems increase efficiency and reduce the amount of stock supermarkets need to hold</li> <li>• When a bar code is scanned the stock is automatically reduced on a data file.</li> <li>• EPOS systems allow managers to monitor the demand at checkouts and ensure the correct staffing level.</li> <li>• EPOS systems reduce the number of errors made by check out operators</li> </ul>	(4)

Question Number	Answer	Mark								
3(a)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">spam</td> <td style="width: 50%;">email filter</td> </tr> <tr> <td>hacking attempts</td> <td>firewall</td> </tr> <tr> <td>viruses</td> <td>antivirus software</td> </tr> <tr> <td>antisocial material</td> <td>Internet filter</td> </tr> </table>	spam	email filter	hacking attempts	firewall	viruses	antivirus software	antisocial material	Internet filter	(4)
spam	email filter									
hacking attempts	firewall									
viruses	antivirus software									
antisocial material	Internet filter									

Question Number	Answer	Mark
3(b)	Prospective buyers can make and monitor bids over a period of time.	(1)

Question Number	Answer	Mark
3(c)	Arrange to meet a buyer / seller in a private place to exchange goods.	(1)

Question Number	Answer	Mark
3(d)	It is illegal to download music without the owner's permission.	(1)

Question Number	Answer	Mark
3(e)	The customers benefit as they no longer need to travel to the shop. The company benefits as they have access to a wider market.	(1)

Question Number	Answer	Mark
4(a)	Sensor	(1)

Question Number	Answer	Mark
4(b)	<ul style="list-style-type: none"> <li>• More mundane tasks are carried out using CAM leaving more interesting tasks for workers.</li> <li>• Process control systems reduce the need for monitoring.</li> <li>• The introduction of CAM may lead to some workers being unhappy as they will need retraining.</li> <li>• Process control systems can instantly respond to changing conditions.</li> <li>• Working conditions are improved as CAM is used to carry out unpleasant tasks.</li> </ul>	(4)

Question Number	Answer	Mark
4(c)	<p>Fewer unskilled staff required.</p> <p>More skilled staff required.</p> <p>More training required.</p>	(1)

Question Number	Answer	Mark
4(d)	To attract more customers by providing a virtual representation of their finished kitchen.	(1)

Question Number	Answer	Mark
5(a)	Improving the effectiveness of communication between departments, which leads to more reliable and up to date information.	(1)

Question Number	Answer	Mark
5(b)	An intranet only allows information to be accessed by members of the organisation. This ensures that business-critical data is kept secure.	(1)

Question Number	Answer	Mark
5(c)	Contact between the employee and home can be maintained.	(1)

Question Number	Answer	Mark
5(d)	Accessing the Internet using a secure network	(1)

Question Number	Answer	Mark
5(e)	<ul style="list-style-type: none"> <li>• The increased use of mobile technologies has changed the way many individuals work.</li> <li>• The availability of the internet gives organisations access to more information.</li> <li>• The increased use of mobile technologies has led to an improvement in communications between organisations and customers.</li> <li>• The increased use of mobile technologies has led to concerns about the health of individuals.</li> </ul>	(4)

Question Number	Answer	Mark
6(a)	<ul style="list-style-type: none"> <li>• the Internet</li> <li>• number</li> <li>• database</li> <li>• printer</li> </ul>	(4)

Question Number	Answer	Mark
6(b)	Sensor, monitor, plotter	(1)

Question Number	Answer	Mark
6(c)	Computer software which simulates the knowledge of a human expert	(1)

Question Number	Answer	Mark
6(d)	although there may be errors in its knowledge base.	(1)

Question Number	Answer	Mark
6(e)	Improve the accuracy of diagnosis and makes more efficient use of the doctor's time	(1)

Question Number	Answer	Mark
7(a)	<ul style="list-style-type: none"> <li>• The availability of the Internet has had a positive effect on many housebound individuals</li> <li>• A wider variety of learning methods have emerged from the use of the Internet.</li> <li>• New technologies have led to organisations outsourcing work to other countries</li> <li>• The increased use of the mobile technologies has allowed for a greater flexibility in peoples' lives</li> </ul>	(4)

Question Number	Answer	Mark
7(b)	CCTV, biometric controls, computerised databases	(1)

Question Number	Answer	Mark
7(c)	E – advantage to employee D – disadvantage to employee A – advantage to employer G – disadvantage to employer	(4)

Question Number	Answer	Mark
7(d)	Online training is suitable for all training needs.	(1)



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