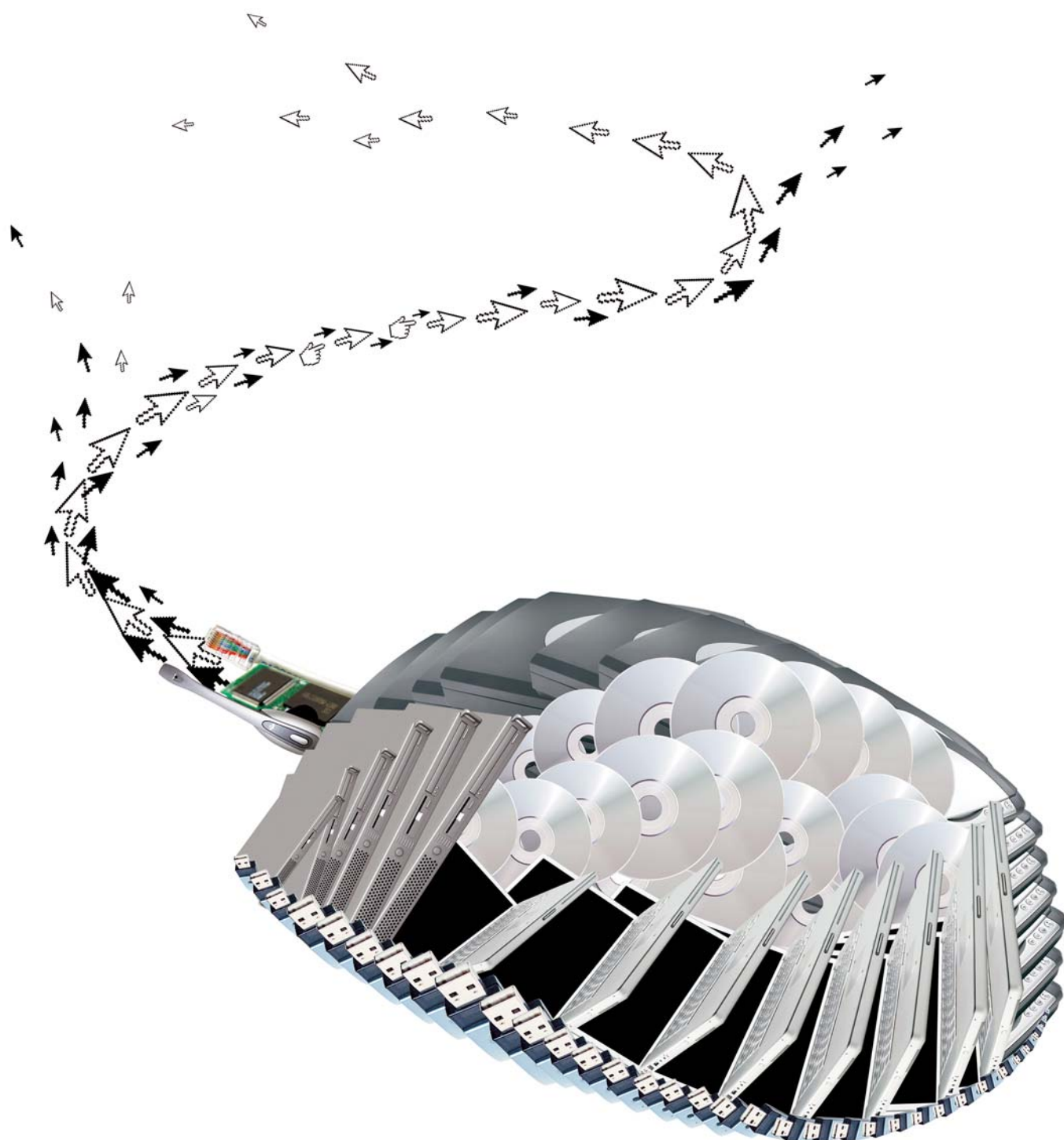


SPECIMEN MARK SCHEME

UNIT 1 - THE POTENTIAL OF TECHNOLOGY





Level 3 Diploma Principal Learning

Information Technology INF3U1

Unit 1

The potential of technology

Specimen Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting, they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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Unit 1 The potential of technology

Examiners: the answers given in this mark scheme are exemplars. Credit must be given for other correct answers not given in the mark scheme. Please refer to Team Leaders where there is any doubt.

Section 1: Investigating and evaluating the use of technology

Question Number	Marks	Answer
1(a)	(2)	Decrease in number of staff Increase in product sales Online booking database to place orders Quicker to place and process orders Use of extranet technologies + description Use of EDI technology + description
1(b)	(8)	Example answers: One mark for stating, two for describing: <ul style="list-style-type: none"> • orders can go directly onto a database and so avoid mistakes • reduces time to take an order as data is already entered – might not need so many staff • customers/potential customers can access information about their order quickly and easily • provides customers with an alternative, convenient method of placing orders – improves customer relationships/loyalty • reduces sales staff manual workload • Ensures data integrity/accuracy/consistency as information is only transcribed once in a centralised location
1(c)	(4)	Example answers: One mark for stating, two for describing: <p>Wider global market – increase in potential sales Reducing staff costs as fewer staff are needed Customers can purchase from companies world-wide Gives wider choice of products Wide choice will increase competitiveness Drives prices down Alternative sales channel Cheaper than traditional sales channels - fewer overheads Any other reasonable answer</p>
1(d)	(4)	Example answers: One mark for stating, two for describing: <p>Fewer staff are needed at <i>Macau Industries</i>. So there could be redundancies. Fear of using new technology Training and re-skilling issues Changes in working patterns Changes in working conditions Changes in organisational structure Any other reasonable answer</p>

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Section 2a: Benefits and risks of new technologies

2(a)	(2)	<ul style="list-style-type: none"> • Decision to use an internal member of staff who did not have the correct skills to set up site • Not enough experience – led to the pages not fully working. • Decision on choice of URL - Not easily memorable. • Inappropriate use of software • Poor design/ill thought out design
2(b)	(4)	<p>Any of the following (plus an explanation):</p> <ul style="list-style-type: none"> • Use of Extranet to sell products/for customers to track orders • Use of Internet to sell/advertise • Use of EDI to process online transactions • Effective communication with customers

Section 2b: Legacy systems

3(a)	(2)	Existing/older computer systems used within an older organisation.
3(b)	(2)	Any example of the use of manual systems and spreadsheet files at <i>TrailerTech</i> , not linked to other systems or example of databases that are used in one area of TrailerTech and ARE NOT LINKED to any other system
3(c)	(2)	<p>Any of the following:</p> <ul style="list-style-type: none"> • Inefficient/difficult to share data easily within the organisation • Wastes time due to duplication • Poor communication within the organisation • Inefficient communication with customers/suppliers • Out of date/incompatible with new hardware and software • Poor company image • Staff may become de-motivated/frustrated by older systems • Data inconsistency due to duplication

Examiners: the answers given in this mark scheme are exemplars. Credit must be given for other correct answers not given in the mark scheme. Please refer to Team Leaders where there is any doubt.

Section 3: Generate ideas for new technology systems

4(a)	(8)	<p>SWOT analysis: 1 mark for an issue in each section plus 2 extra marks for clarity of the analysis</p> <p>At least one appropriate point should be identified under each heading in the SWOT analysis and a mark should be awarded for each. Please note that all headings MUST have a least one answer, e.g. if three headings have 2 points each but one has no points identified, a maximum of 3 marks could be awarded for this section of the answer.</p> <p>Internal strengths:</p> <ul style="list-style-type: none"> • Workforce • Cash flow • Reputation • Healthy, growing organisation • Any other reasonable answer <p>Internal weaknesses:</p> <ul style="list-style-type: none"> • Use of data/information • Data storage issues • Organisational issues • Use of Internet technologies • Lack of technological expertise • Any other reasonable answer <p>External opportunities:</p> <ul style="list-style-type: none"> • Identification of any new market opportunities • Identification of any new product opportunities • Identification of any new service opportunities • Identification of new technological opportunities • Any other reasonable answer <p>External threats:</p> <ul style="list-style-type: none"> • Competitor related issues • PEST related issues <p>Any other reasonable answer</p>
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4(b)	(3)	<p>Customers;</p> <ul style="list-style-type: none"> • Can place orders on line (1) – convenient for customers • Can communicate with customers via email (1) – convenient for customers • Less chance of errors as orders are only transcribed and processed once (1) – greater customer satisfaction <p>Staff;</p> <ul style="list-style-type: none"> • Re-training (1) • Lack of expertise (1) • Motivation (1) • Easier to do their job with the aid of these systems (1) • Easier to access order information (1) • Reduction in errors while taking orders etc... (1) • Can communicate with customers via email (1) <p>Organisation;</p> <ul style="list-style-type: none"> • Greater efficiency (1) • Cost of re-training employees (1) • Disruption during system implementation (1) • Managing employee motivation issues (1) • Opportunity for selling/promoting/advertising over the Internet (1) <p>The same answer may be acceptable for Staff and Organisation, for example, greater efficiency could fall under both headings. This is fine, however, the answer given by each individual student MUST be different under each of these two headings a mark to be awarded for both headings</p>
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4(c)	(10)	<ul style="list-style-type: none"> • Students should be awarded one mark for each problem identified with the current system (maximum 3 marks) • Students should be awarded one mark for each communication improvement (maximum 3 marks) • Students should be awarded one mark for each data storage improvement (maximum 3 marks) • Students should also be awarded one mark for each benefit and each limitation identified (maximum 3 marks) • Students should be awarded one mark for each recommendation (maximum 3 marks) <p><i>A maximum of three marks can be awarded for bullet points (i), (ii), (iii), (iv) and (vi) with up to 10 marks in total awarded for the content these bullet points.</i></p> <p>(i) Examples of problems with current systems</p> <ul style="list-style-type: none"> • Efficiency issues • Duplication issues • Data entry error issues • Difficulty in communication • Use of many different systems is confusing and disorganised • Difficult to analyse data, facts and figures <p>(ii) Examples of improvements to communication</p> <ul style="list-style-type: none"> • Improved web site • Memorable URL • Web site in a variety of languages • Use of Extranet facilities to place/monitor orders online • Use of EDI for automatic ordering when stock levels are low • Use of EDI for making payments <p>(iii) Examples of improvements to storage and use of data</p> <ul style="list-style-type: none"> • Implementation of centralised internal database to track/monitor order, invoices and deliveries • Implementation of centralised internal database to automatically generate invoices/picking tickets • Use of barcode tracking system for deliveries • Use of PDA equipment for customers to sign for orders • Use of robotics to pick/pack products <p>(iv) Examples of benefits:</p> <ul style="list-style-type: none"> • To improve efficiency • To enhance company reputation/image • To improve communication with customers/suppliers • To save money in the long term • To improve customer service
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		<ul style="list-style-type: none"> • To improve customer satisfaction • To improve customer retention • To expand market abroad • To improve staff productivity/use of staff time • Staff motivational issues • Customer retention <p>Examples of limitations:</p> <ul style="list-style-type: none"> • Costs of new system • Social effects eg redundancy • Lack of staff knowledge • Reliability of the new system • Down time during changeover <p>(vi)</p> <p>Recommendations criteria – 4 marks – dependent on candidate’s individual analyses, should be valid and justified</p>
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Use of English

	(6)	6 marks - outstanding English (very few, if any, minor errors); clear, concise, correct spelling and appropriate use of specialist vocabulary throughout the report.
		5 marks – good English; clear, concise, correct spelling and correct specialist vocabulary throughout the report.
		4 marks – nearly all good English; clear, concise, correct spelling and correct specialist vocabulary in the report.
		3 marks – mainly good English; clear, concise, correct spelling and correct specialist vocabulary in the report.
		2 marks – some obvious mistakes in use of English, and correct specialist vocabulary in the report.
		1 mark – many obvious mistakes in use of English, and correct specialist vocabulary in the report.

Mathematical analysis

	(3)	Students should be awarded up to 3 marks for their analysis of financial implications and cost effectiveness. For one mark they will outline sensible figures; for two marks they will also discuss the cost effectiveness of different ideas; for 3 marks they will compare the cost effectiveness of different ideas (Up to 3 marks)
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