



ADVANCED
General Certificate of Education
2010

Ce	ntre Number
71	
Cano	didate Number

Information and Communication Technology

Assessment Unit A2 1

assessing

Module 3: Information Systems

[AW211]

TUESDAY 18 MAY, AFTERNOON



TIME

2 hours.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper. Answer **all six** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 120 including a maximum of 5 for quality of written communication.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

For Examiner's use only	
Question Number	Marks
1	
2	
3	
4	
5	
6	
QWC	

Total	
IUlai	
Marks	



1)	Describe the main features of data encryption.	
	[4]	
)	Describe the main features of a peer-to-peer network.	
	[4]	
)	Explain how parity can be used to detect and correct errors in data transmission.	

	mmunication standards have an important role to play in networked tems.	k	Examin Marks	er Only Remark
(d)	Explain why communication standards are required.			
		_ [2]		
(e)	Describe the main features of the Open Systems Interconnection (OSI) model			
		_ [6]		

Describe thre	e of the main conte	nts of a typical u	ser guide.		
1					
2					
3					
				[6]	
Identify four a	dvantages of using	an on-line user	quide rather th	nan a	
	avantages or using	an on-line aser	guide ratifici ti	iaii a	
hard copy.					
hard copy.					
1					
1					
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(c)	Explain how employees could get help from a user group.	Examin Marks	er Only Remark
	[4]		
(d)	Explain how ICT can be used to help train a new employee to use the application.		
	[4]		

A prompt A parameter [2]	
[2]	
A parameter	
[2]	
b) Describe two ways in which an application can be opened using a typical GUI.	
1	
2	
[4]	

Marks Remark

	ployees with access to a company's network must sign an "acce " policy.	-	Marks Re
(a)	Describe the main contents of a typical "acceptable use" policy		
o)	The company must comply with Data Protection legislation.		
	Name and describe two other laws relating to ICT.		
	Law		
	Law		
	Description		
		[6]	

(c)	ICT professionals may become members of the Association for Computing Machinery (ACM).		Examino Marks	er Only Remark
	Describe two benefits of membership of the ACM.			
	1			
	2			
		[4]		
(d)	The increasing use of ICT has resulted in changing work patterns.			
	Describe the impact of ICT on employees working from home.			
		[6]		

Data redundancy [2] Data independence [2] Data independence [2] Two of the entities in the database are PRODUCT and SUPPLIER. Each product may be supplied by more than one supplier. Each supplier may supply more than one product. Draw an entity relationship (ER) diagram for these entities that does not contain a many-to-many relationship. Indicate clearly the key fields.	\ SI	upermarket uses a relational database for its stock control.	Exami Marks	ner C
Data independence [2] Data independence [2] Two of the entities in the database are PRODUCT and SUPPLIER. Each product may be supplied by more than one supplier. Each supplier may supply more than one product. Draw an entity relationship (ER) diagram for these entities that does not contain a many-to-many relationship. Indicate clearly the key	a)	In the context of a relational database, explain what is meant by		
Data independence [2] Data independence [2] Two of the entities in the database are PRODUCT and SUPPLIER. Each product may be supplied by more than one supplier. Each supplier may supply more than one product. Draw an entity relationship (ER) diagram for these entities that does not contain a many-to-many relationship. Indicate clearly the key		Data redundancy		
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not contain a many-to-many relationship. Indicate clearly the key				
		not contain a many-to-many relationship. Indicate clearly the key		

/i\	Explain what is meant by a MIS.		
(i)	Explain what is infant by a wild.		
		[4]	
(ii)	Describe the main features of a decision support system.		
		[4]	

[6] Identify four advantages of off-the-shelf software over a custom-built package. 1	Describe th	e main featu	res of proto	typing.				ks
[6] Identify four advantages of off-the-shelf software over a custom-built package. 1. 2. 4.								
[6] Identify four advantages of off-the-shelf software over a custom-built package. 1							_	
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package. 1. 2. 3. 4.						L	01	
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[4]	package. 1 2 3							
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· ·	oackage.							

CA	SE tools can be used during system development.		Examin Marks	er Only Remark
Wı	ite a report explaining how the use of CASE tools can lead to		Walks	Kelliaik
•	Improved software quality			
•	Reduced development time			
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