

IMIS DIPLOMA QUALIFICATIONS

Information Systems in Organisations

Answers – December 2013

Question A1.

Describe the terms Intrusion Detection Systems (IDS) and Intrusion Prevention Systems (IPS). What is the main difference between them? (5 marks)

Answer LO5 AC5.2 Chap. 5.3 p167

Intrusion Detection Systems (IDS) scans for unusual or suspicious traffic, identifies the start of a Denial of Service (DOS) attack, alerts the network administrator to take the appropriate defensive action.

Intrusion Prevention Systems (IPS) is designed to take immediate action whenever a traffic flow anomaly is detected. ASIC-based IPS have the power and analysis capabilities to detect and block DOS attacks.

2 marks each for each description and 1 mark for a difference.

Question A2.

Describe the **THREE** stages of Lewin's change model. (5 marks)

Answer LO6 AC6.2 Chap. 14.4 p550

The three stages are:

- *Unfreezing- where there is a tendency to seek a situation in which people feel relatively safe and have a sense of control.*
- *Change – where people have to go through several stages of apprehension before they are prepared to move forward, and takes time to do so. There may be various stages to go through, and they may not always be successful.*
- *(re)freezing –this involves the process of moving to a new place of stability, and may be a slow process, possibly to the number of people involved.*

2 marks each for each response to a max of 5 marks.

Question A3.

Describe the term Business Process Outsourcing (BPO). What is the main difference between Business Process Outsourcing and IT Outsourcing? (5 marks)

Answer LO4 AC6.2 Chap. 15.1 p 566

This is the process of hiring another company to handle business activities, and is not to be confused with outsourcing which deals with the IT aspects. The main difference is the BPO deals with all of the business and IT sourcing only deals with the IT element of a business.

3 marks each for each response and 2 marks for a difference.

Question A4.

Name and describe the **TWO** major parts of Porter's value chain model. (5 marks)

Answer LO1 AC1.3 Chap. 1.4 p 19

Primary activities – where a company produces goods, thus creating value for customers are willing to pay.

Support activities – these are activities which are required, indirectly, to produce the goods such as Human Resource Management (HRM), administration et cetera.

3 marks each for each response to a max of 5 marks.

Question A5.

Describe the terms Knowledge Worker and Data Worker. What is the main difference between them? (5 marks)

Answer LO1 AC1.4 Chap. 2.3 p 54

Knowledge Worker – they create information and knowledge as part of their work and integrate it into the business.

Data Worker – they use, manipulate, or disseminate information.

The primary difference is the level at which they use/apply data/knowledge.

2 marks each for each description and 1 mark for a difference.

Question A6.

Describe how financial planning and economic analysis is facilitated by Data Mining. (5 marks)

Answer LO2 AC2.2 Chap. 9.4 p347

An in depth answer would be along the lines of:

It is done by using data mining, or by various other means in financial packages e.g. it will allow a person to mine the data to recognise patterns. For example checking to see if clients are saying there are one category when in fact they are another category and paying a cheaper price. Also the data mining can be used to check locations of their clients to produce a more efficient collection/delivery route dropping off the parcels at clients that have the most parcels etc. This route could change depending upon time of the year (Christmas).

5 marks for a complete response.

Question A7.

Describe any **THREE** phases in the decision making process. (5 marks)

Answer LO3 AC3.2 Chap. 12.4 p469

- *Intelligence phase – manages examine a situation, then identify and define the problem.*
- *Design phase – construct a model that represents and simplifies the problem or opportunity.*
- *Choice phase – selects a solution having been ‘tested on paper’*
- *Implementation phase – self explanatory.*

2 marks each for each response to a max of 5 marks.

Question A8.

Describe **TWO** major reasons why Information Systems (IS) need to have audit controls in place. (5 marks)

Answer LO5 AC5.1 P181

Any TWO of the following are accepted. They are needed as it:

- *creates a trail of processes taken place, who did it, and why.*
- *Should there be a discrepancy at the end of the week/month the audit controls can be used to locate the discrepancy and correct it (reconciliation).*
- *checks that there are sufficient controls in the system to ensure that the IS is safe and secure.*
- *there is a clear separation of duties of employees.*

3 marks each for each response to a max of 5

Case information:**EIM Courier**

EIM is a courier company that collects parcels from their customers and delivers them in the local area. There are 20 staff, of which 5 work in the office, 3 in the receipts and despatches department, plus 12 drivers who collect and deliver the parcels.

Each working day the drivers will receive a manifest showing what parcels are to be delivered, and to whom, and to collect parcels from them at the same time for delivery the working day.

Also, at 3pm another manifest is produced showing what parcels are to be collected for delivery the next working day, which customers have informed the company either by telephone or using the company's website.

The website is used to inform customers when their parcels will be delivered, and collected as appropriate.

Question B9.**Case information:****EIM Courier Ltd**

Give and describe **FIVE** reasons why EIM have installed an IT system.

(20 marks)

Answer AC2.1 Chap. 9

Common responses would include:

- *Good customer relationship*
- *Centralised data so that anyone within the organisation can access the relevant data rather than being past from 'pillar to post'*
- *Efficient production of bills, including discount where appropriate*
- *Efficient production of drivers' schedule*
- *Ability to reconcile bank statements*
- *Cash flow analysis*
- *Etc*

*1 mark each for a response and 3 marks for an explanation * 5*

Question B10.**Case information:****EIM Courier Ltd**

a) To ensure that the monthly invoices are produced correctly on time, sent to the correct customer, and have been paid, what data should be stored in the database? (12 marks)

b) Give and describe **TWO** precautions that must be taken to ensure that the data is secure and protected. (8 marks)

Answer LO6 AC6.1 Chap. 3 and LO5 AC5.3 Chap. 5

a) *The following is a minimum:*

- *Customer details - Account number, customers name and address, email address, phone number, credit conditions, credit limit, outstanding balance*
- *Financial details – daily – parcel ID, category, size, cost of postage, date and time collected, data and time delivered*
- *Financial details – end of day – total amount*

- Financial details – end of week – total amount
 - Financial details – end of month – production of monthly bill
 - Financial details – payments - as and when required – date of payment, invoice number, amount paid, customer number
- b) Common response would include, and are self explanatory:
- Fire wall
 - Virus checker
 - Passwords
 - User Ids
 - Audit trail
 - Disaster recovery plan
 - Backup
 - Legislative requirements
- a) 12 marks for a complete response else pro rata
 b) 1 mark each for a response and 3 marks for an explanation * 2

Question B11.

Case information:

EIM Courier Ltd

As manager of EIM, the Information System (IS) facilities to help you in your managerial activities can be classified as Management Information Systems support (MIS) and Business Intelligence (BI).

- a) Describe **BOTH** of these terms. (8 marks)
- b) For both of the terms give and describe **TWO** reasons why you would use these facilities. (12 marks)

Answer AC3.1, AC3.2 Chaps. 2 & 12

- a) *MIS support – systems designed to provide past, present, and future routine information appropriate for planning, organising, and controlling the operational areas in an organisation.*
Business Intelligence – a category of applications for gathering, storing, analysing, and providing access to data to help enterprise users to make better decisions.

b) Common responses would include:

<i>Business Intelligence</i>	<i>MIS support</i>
<i>Control costs</i>	<i>Statistics</i>
<i>Analyse work flow/load</i>	<i>Various reports – ad hoc, exceptional, periodic</i>
<i>Forecast work flow/load</i>	<i>Comparative analysis</i>
<i>Possible deviations from the norm</i>	<i>Connection and collaboration</i>

- a) 2 marks for an explanation * 2
 b) 1 mark each for a reason and 3 marks for an explanation * 2*2

Question B12.**Case information:****EIM Courier Ltd**

When the drivers return to the depot they have to input the data about their collections and deliveries, which is time consuming and prone to errors.

Give and describe **FOUR** reasons why you, as the manager, should invest in Mobile Computer technology? (20 marks)

Answer LO4 AC4.2 Chap. 7.1

Common responses would include:

- *Reduces paperwork as the data can be downloaded from the Mobile Computer technology equipment*
- *Immediate responses and feedback enabling clients, office staff, and drivers to be able to access parcel details to see what their status is*
- *Fewer errors whilst inputting the data as all that is required is the bar code to be scanned, and the 'internal clock' will input the time, etc*
- *No end- of-day inputting and possible overtime costs as well less human errors etc*

Question B13.**Case information:****EIM Courier Ltd**

When EIM used basic Personal Computers the need to maintain the hardware and software was relatively easy and done in-house. With the Information System (IS) now running in real time the maintenance of the hardware and software is becoming more complex, especially with the need for all communications links to be open all the time.

As the manager of EIM you have to **choose and justify** whether to

- outsource the hardware maintenance or to
- employ a hardware engineer.

Give and explain **FOUR** considerations that need to be taken into account when deciding which route to take. (20 marks)

Answer LO6 AC6.3 Chap. 13.4

a) Any of the following is acceptable if the student chooses out sourcing:

- *Cost as the company will not have to find extra staff cover Holiday/sickness periods*
- *Expertise/quality of workmanship in that the out sourcing company will train their staff more often than the company could/will. Also the staff in the out sourcing company will pass on their experiences*
- *EIM needs to concentrate on the core business in that time can not/will not be spent on the Information System problems*
- *Updating of skills will be guaranteed in that if the company wishes to maintain the contract in the future*
- *will be poor in that time*

- *Flexibility in that the out sourcing company can have specialist within in the company rather than all of their staff having to know everything*
- *Etc*
- b) *Any of the following is acceptable if the student chooses in-house:*
 - *Immediate response as the person is on site*
 - *Knows the system 'inside out' as he probably recommended the resources to purchase, designed it, and has worked on it in the past*
 - *No excessive charges such as hidden charges, over inflated prices for services rendered*
 - *Can upgrade as and when required and test the system with the staff.*

Etc

*1 mark each for a response and 4 marks for an explanation * 4*

SOLUTIONS & MARKING SCHEME

DECEMBER 2013

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Matrix of D5 LO and AC

Assessment Criteria:		Question												
		A1	A2	A3	A4	A5	A6	A7	A8	B9	B10	B11	B12	B13
LO1														
	AC1.1													
	AC1.2													
	AC1.3				Y									
	AC1.4					Y								
LO2														
	AC2.1									Y				
	AC2.2						Y							
LO3														
	AC3.1											Y		
	AC3.2							Y				Y		
	AC3.3													
LO4														
	AC4.1													
	AC4.2			Y									Y	
LO5														
	AC5.1								Y					
	AC5.2	Y												
	AC5.3										Y			
LO6														
	AC6.1										Y			
	AC6.2		Y											
	AC6.3													
	AC6.4													Y