

**EXAMINERS' REPORT**  
**AM INFORMATION TECHNOLOGY**  
FIRST SESSION 2018



**L-Università  
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**MATSEC  
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## General Statistics

The distribution of grades awarded in the May 2018 session is given in the table below.

*Table 1: Distribution of grades*

GRADE	A	B	C	D	E	F	abs	TOTAL
NUMBER	1	8	9	4	2	3	4	31
% OF TOTAL	3.2	25.8	29.0	12.9	6.5	9.7	12.9	100

## General Comment by Markers

### Paper 1 Section A

#### Question 1

Most candidates answered a(i) and a(ii) correctly. Authentication technologies were confused with authorisation and a(ii) was repeated in a(iii) or vague answers were given. The issue of data security during transmission was misunderstood. Most candidates demonstrated good understanding of barcode and RFID technologies.

#### Question 2

A significant number of candidates did not relate question to physical media used in computer networks and gave unrelated software related answers like email or chatting. The star topology was well explained, many students chose mesh or ring as their preference rather than a bus topology. Part (d) was well answered but the identification of increased network traffic/computation as a disadvantage of an encryption process was missing.

#### Question 3

This question was not so well answered. A Management Information System was mentioned, rather than an Expert System. Most descriptions given were rarely related to the risk management process scenario. In part (b), most candidates focused on security issues rather than scenario related disadvantages. Candidates correctly identified Data Warehouse in part (c), however, few students mentioned a "Drill Down operation". In part (d), most candidates got full marks in identifying four issues that can cause data loss. However, in part (f) responses related to criteria like cost, effectiveness, time to restore, practicality, etc. were inadequate. Most students gave valid answers for parts (g) and (h).

#### Question 4

The recall parts of this question like definitions of register, buses, MAR, MDR, CIR and PROM were well answered. Candidates however gave wrong answers to the applied sections in part (d). A few students identified CPU speed as the issue in part d(i) and bus speed in part d(ii). In part d(iii), a significant number of responses given failed to distinguish between primary and secondary storage, or failed to notice that the question specified that the device needs to store data when no power is applied.

## **Paper 1 Section B**

### **Question 1**

Most candidates answered well parts (a), (c), (e) and (g). A significant number of responses on centralized and decentralized organizational setups were not elaborate enough and lacked distinction between the two scenarios. Many candidates answered well the sections on computer fraud, E-Government, e-learning and eyestrain reduction. Nearly all candidates did not identify a statistical package like SPSS in part (f).

### **Question 2**

Candidates who chose this question explained well the usefulness of E-Government services and gave good practical examples. A number of candidates failed to explain the advantage of using a single secure login to access different services.

### **Question 3**

Most candidates gave good reasons to justify the feasibility of an external communication campaign, mentioning also how the return benefits outweigh the cost. Almost all candidates gave a good account of six methods, mentioning both electronic and more traditional media to spread information.

### **Question 4**

Candidates who attempted this question gave vague answers for part (a). Responses failed to highlight key points about data/information like usage of information to obtain knowledge for the benefit of an organisation, and various problems like the concepts of Garbage-In Garbage-Out, consistency, priorities etc. However, many candidates gave correct answers in part (b), by identifying the problem as "Data Overload" and the removal of redundant information and/or compacting information as a solution.

## **Paper 2 Section A**

### **Question 1**

Candidates fared quite well in this question. Overall they had no difficulty with the software categories and database systems. Most of the marks were lost in the subsequent questions when trying to differentiate between HTML/CSS/JavaScript/PHP/IMAP/POP and their uses.

### **Question 2**

In this question candidates fared well. Responses indicated confidence with GUIs and the components of an OS however they were lacking when it came to express valid criteria upon which software should be chosen. Quite a few candidates instead focused on how software should be built.

### **Question 3**

Very few candidates opted for this question and those who did, did not fare very well. Responses showed lack of confidence in presenting valid HTML code which was adequate for the scenario presented. On a positive note the candidates were aware of digital certificates and how this helps online security.

### **Question 4**

From the answers provided it was noted that very few candidates realised the correct normal form of the table. Some of the candidates were not familiar with the three level schema. However, it was also noted that the candidates were very confident with the SQL statements.

## **Paper 2 Section B**

### **Question 1**

On average, the candidates' performance was very poor for this question. Very few realised that the code presented was indeed a bubble sort; and most didn't know how to rewrite line 18 in a different way. Also, very few candidates were able to write HTML code as required. Once again, the candidates did well in the SQL related questions.

### **Question 2**

Very few candidates opted for this question. Those who did were quite adept in the theoretical concepts. However nearly all the candidates who answered this question struggled to apply these concepts in actual correct JAVA code.

### **Question 3**

The majority of candidates chose to answer this question and their performance was good. Very few candidates lost marks in differentiating between the different types of testing. Also, their recommendation was spot on most of the time. Most of the marks were lost in the final two sub-questions where candidates did not present the factors and the criteria in a coherent manner.

### **Question 4**

This question was attempted by the majority of the candidates. The majority had no difficulty in deciphering the class diagram and providing the required information asked in part (a). Part (b) was also answered correctly by the majority of the candidates.

Most of the candidates lost marks in part (c), by failing to identify the correct data types required for the scenario. It is important to highlight that very few students realised the need for an array in one of the questions. Also, responses given showed lack of familiarity with the float data type.

Marks were also lost in part (f), since candidates did not identify that the scenario required a phased approach.

Chairperson

2018 Examination Panel