L-Università ta' Malta

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**SECONDARY EDUCATION APPLIED CERTIFICATE LEVEL
2023 SUPPLEMENTARY SESSION**

SUBJECT:	**Information Technology**
PAPER NUMBER:	Synoptic – Unit 1
DATE:	1st November 2023
TIME:	2:30 p.m. to 4:35 p.m.

THIS PAPER SHOULD BE RETURNED TO THE INVIGILATOR AFTER THE EXAMINATION.

For examiners' use only:

Question	1	2	3	4	5	6	Total
Score							
Maximum	6	8	12	8	8	8	50

Answer **ALL** questions in the space provided. You may answer either in English or in Maltese.

Scenario

- 'Travel Fun' is a well-known travelling agency.
- Several workers work with the agency.
- Jane, the director of the agency, makes sure that all employees are provided with a modern computer system to work on.

Question 1   **K-1 (6 marks)**

a. List **FOUR** different types of computer systems, apart from desktop computer.

Computer system 1: _____ (0.5)

Computer system 2: _____ (0.5)

Computer system 3: _____ (0.5)

Computer system 4: _____ (0.5)

b. ● Jane needs to buy some devices to cater for the new needs of the agency, which include:
   ● keeping a digital copy of the paper on which feedback is provided;
   ● allowing employees to listen to music whilst working as long as they do not disturb others working in their same office.

From the table below, select the most appropriate input and output device Jane should buy.

Plotter	Headphones	Joystick	Scanner	MICR

Appropriate Input Device: _____ (1)

Appropriate Output Device: _____ (1)

c. 'Travel Fun' stores data on USB flash drives. Outline the following **TWO** properties of this storage device.

Longevity of device: _____

_____

_____

_____ (1)

Access speed: _____

_____

_____

_____ (1)

6

Question 2   K-3 (8 marks)

- While most of the computers at 'Travel Fun' are new, the agency also owns some old desktop computers.
- Jane would like to upgrade these old desktop computers.

a. Label the internal hardware components shown by each of the following images.

   i.

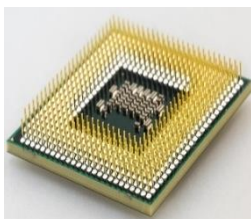   *Source: https://www.crucial.com/*

   _____ (0.5)

   ii.

   Source: https://www.amazon.in/

   _____ (0.5)

   iii.

   Source: https://www.redhat.com/

   _____ (0.5)

   iv.

   Source: https://www.technologyuk.net/

   _____ (0.5)

This question continues on next page.

b. List **TWO** possible reasons why a computer upgrade may be required.

Reason 1: _____

_____ (1)

Reason 2: _____

_____ (1)

c. Outline **TWO** implications of upgrading a computer system.

Implication 1: _____

_____

_____ (2)

Implication 2: _____

_____

_____ (2)

8

Question 3   **C-3 (12 marks)**

- The technician tried switching on one of the old desktop computers to check its specifications.
- However, the computer displayed the boot-up error report shown in Figure 1.

Figure 1: Boot-up error
Amended from: https://shorturl.at/bvKT8

a. Identify the hardware problem which has generated the boot-up error report shown in Figure 1.

Hardware problem: _____ (4)

b. Describe **TWO** possible causes which might have generated the boot-up error report shown in Figure 1.

Possible cause 1: _____

_____

_____

_____ (2)

Possible cause 2: _____

_____

_____

_____ (2)

c. Explain **ONE** possible solution for each possible cause described in Question 3b.

Possible solution for cause 1: _____

_____

_____

_____

_____ (2)

Possible solution for cause 2: _____

_____

_____

_____

_____ (2)

| 12 |

Please turn the page.

Question 4   K-6 (8 marks)

● While carrying out the computer upgrade, the technician had to solder some electronic components.
● Different equipment was used during soldering.

a. Match the following soldering equipment with its use, by writing the number next to each use.

Soldering equipment		Use	
i.	 *Source: https://eshop.wuerth.com.mt*		Used to clean the tip of the soldering iron. (0.5)
ii.	 *Source: https://malta.desertcart.com*		Used to connect components to metal. (0.5)
iii.	 *Source: https://www.phywe.com*		Used to heat the solder. (0.5)
iv.	 *Source: https://pcbsmoke.wordpress.com*		Used to measure the flow of electrical power. (0.5)

b. Outline **TWO** precautions which should be taken to minimise risks when soldering.

Precaution 1: _____

_____

_____ (1)

Precaution 2: _____

_____

_____ (1)

c. i. Describe in **FIVE** steps the procedure of soldering a solder joint.

_____

_____

_____

_____

_____

_____

_____

_____ (2)

ii. Describe in **FIVE** steps the procedure of desoldering a solder joint.

_____

_____

_____

_____

_____

_____

_____

_____ (2)

8

Please turn the page.

Question 5   **K-7 (8 marks)**

Following the upgrade, Jane asked the technician to install software on the desktop computers.

a. Name **TWO** different types of software.

   Type of software 1: _____ (1)

   Type of software 2: _____ (1)

b. List **TWO** examples for each type of software named in Question 5a.

   Examples for type of software 1

   Example 1: _____ (0.5)

   Example 2: _____ (0.5)

   Examples for type of software 2

   Example 1: _____ (0.5)

   Example 2: _____ (0.5)

c. Differentiate between the two types of software named in Question 5a. You are required to differentiate based on **TWO** different aspects.

   Difference 1: _____

   _____

   _____

   _____

   _____

   _____ (2)

   Difference 2: _____

   _____

   _____

   _____

   _____

   _____ (2)

8

Question 6   **K-8 (8 marks)**

- Jane asked the technician to create different user accounts.
- Jane was given an administrator account.

a. List **TWO** different types of local user accounts, apart from administrator.

Local user account 1: _____ (1)

Local user account 2: _____ (1)

b. Describe the purpose of each local user account listed in Question 6a.

Purpose of local user account 1: _____

_____

_____ (1)

Purpose of local user account 2: _____

_____

_____ (1)

c. Outline **TWO** advantages and **TWO** disadvantages of online user accounts.

Advantage 1: _____

_____

_____ (1)

Advantage 2: _____

_____

_____ (1)

Disadvantage 1: _____

_____

_____ (1)

Disadvantage 2: _____

_____

_____ (1)

8

Blank Page

Blank Page

Blank Page