



L-Università
ta' Malta

MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD

**SECONDARY EDUCATION CERTIFICATE LEVEL
2021 SUPPLEMENTARY SESSION**

SUBJECT:	Information Technology
PAPER NUMBER:	Synoptic – Unit 1
DATE:	1 st November 2019
TIME:	10:00 a.m. to 12:05 p.m.

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

Scenario

- A local bakery, AngelCakes, would like to update their current outdated system to a more modern computerised one.
- The owner has asked for your help to set everything up.

Question 1

(6 marks)

The owner has asked you to describe how computer systems are used in different scenarios.

a) Describe how computers are used in education.

(3)

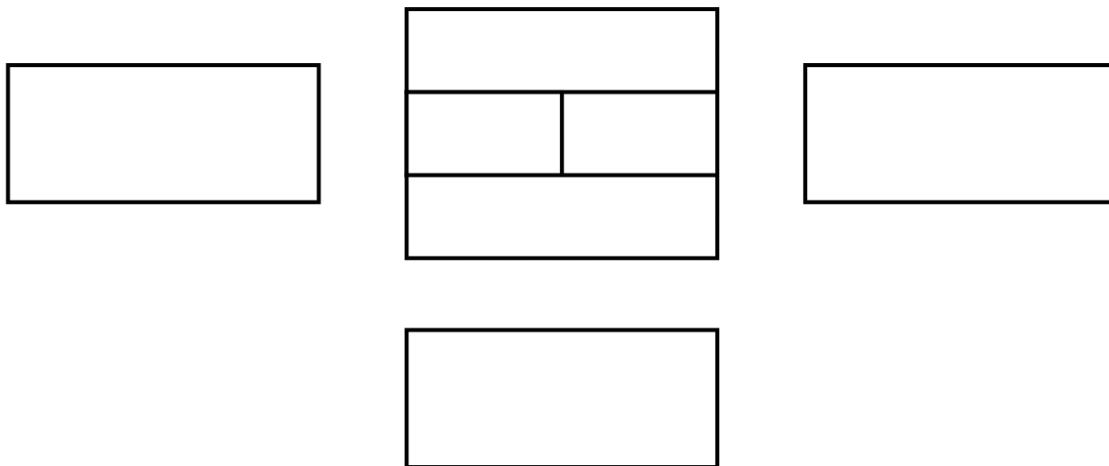
b) Describe how computers are used in business.

(3)

Question 2

(10 marks)

Complete the following data flow diagram in order to help AngelCakes owner understand better what a computer system is made of. Make sure to name all the boxes and include all the necessary arrows.



Question 3

(9 marks)

AngelCakes owner has asked for your help to choose a PC for the store. Table 1 below lists all the necessary requirements.

Table 1: Client Requirements

Store PC:
Must be very small as there is very limited counter space
Must have an HDMI port to connect to the monitor already available
Must be able to handle small everyday tasks
Must have a large storage space

Help the owner choose the Store PC with the best price to performance ratio from the ones below.

Table 2: Store PC options

Name	Pavilion Wave	VivoMini	NUC 8
CPU	Intel Core i5-7400T	Intel Core i5-7200U	Intel Core i7-8705G
CPU speed	2.4GHz	3.1GHz	3.1GHz
RAM	4GB	8GB	16GB
HDD	1TB HDD	500GB SSD	500GB SSD
Ports	2x USB 3.0, 1x USB 3.1, DisplayPort, HDMI, Card Reader	4x USB 3.0, DisplayPort, HDMI, Card Reader	4x USB 3.0, 2x USB 3.1, 2x Mini DisplayPort, HDMI, SDXC Slot
OS	Windows 10	Windows 10	Windows 10
Size	17 cm x 15 cm x 23 cm	13 cm x 13 cm x 5 cm	25 cm x 20 cm x 12 cm
Price	€645.00	€555.00	€816.00

a) Which store PC would you choose for the owner? Write the name below.

_____ (3)

b) Provide **THREE** reasons for your answer.

Reason 1:

 _____ (2)

Reason 2:

 _____ (2)

Reason 3:

(2)

Question 4

(12 marks)

The owner has an old PC he would like to use in the bakery's office. He knows that the computer's performance can be improved but doesn't know from where to start. Help him understand by discussing how different components can affect the system's performance.

a) CPU:

(4)

b) RAM:

(4)

c) SSD:

(4)

Question 5**(6 marks)**

Outline the following data communication and networking terms to help AngelCakes owner better understand networks.

a) Bluetooth:

_____ (1)

b) Protocol:

_____ (1)

c) Optical Cable:

_____ (1)

d) Network Interface Card (NIC):

_____ (1)

e) Broadband:

_____ (1)

f) Coaxial Cable:

_____ (1)

Please turn the page.

Question 6**(9 marks)**

AngelCakes owner doesn't understand the dangers of the Internet and how to protect himself and his business from such threats. Help him by explaining **THREE** issues related to network security threats.

a) Network Threat 1:

(3)

b) Network Threat 2:

(3)

c) Network Threat 3:

(3)

Question 7**(17 marks)**

To make sure that the older PC used in the bakery office is set up correctly you decided to do a fresh installation of Windows 7.

a) Mention **ONE** reason why it is important to make a backup before installing or re-installing the operating system.

(2)

b) Look at Figure 1 on the next page.

i. Circle the option you would use to start a backup. (1)

ii. Where do you need to go to access the options shown in Figure 1?

(1)



Figure 1: Computer Settings

c) Explain the purpose of a Restore Point.

(2)

d) Look at Figure 2 below.

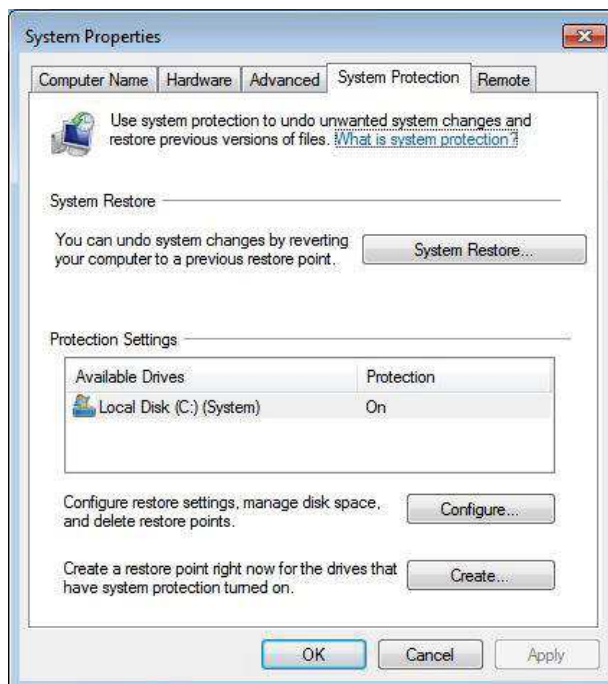


Figure 2: System Properties

- i. After clicking the Create... button, what is the first thing the user will be asked to do?

_____ (1.5)

- ii. Which button do you need to click in order to be allowed to delete all the restore points?

_____ (1.5)

- iii. What happens when you click the System Restore... button?

_____ (2)

- e) The bakery owner would like to make some changes in order to personalise his account. Look at Figure 3 below and write down which option he should use in order to make the following changes.

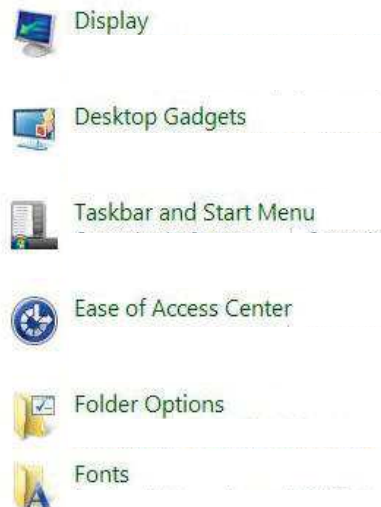


Figure 3: Appearance Options

- i. Change from 1024x768 to 1920x1080;

_____ (2)

- ii. Change his background picture from the default one to the bakery logo;

_____ (2)

- iii. Increase the size of the mouse pointer.

_____ (2)

Question 8**(6 marks)**

A malware protection plan is a necessary precaution to ensure that the computer system is safe from network threats. Outline the following elements of a malware protection plan.

a) Sand Boxing:

(2)

b) Anti-malware:

(2)

c) Firewall:

(2)

Please turn the page.

Question 9**(13 marks)**

Now that the system has been set up, you have decided to create employee accounts and handle the necessary sharing options.

a) Look at the image below.



Figure 4: Account Management

i. How many accounts are active?

_____ (1)

ii. Write down the name of an active user account with the least amount of rights.

_____ (1)

iii. There is one more employee who needs an account, Mikela Galea. On the image, circle the option that would allow you to make a new account for her. (1)

b) In the image below, you can see the owner's attempt to share a folder.

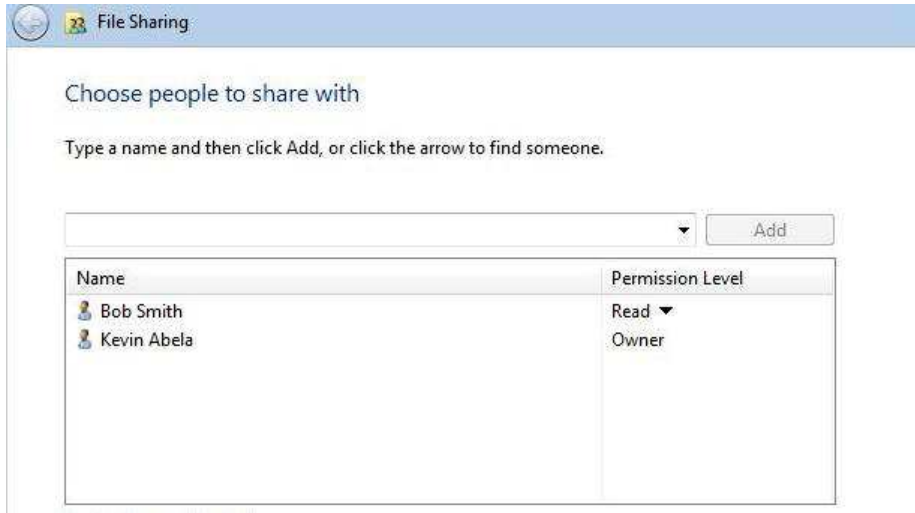


Figure 5: File Sharing

i. Write the name of the person **sharing** the folder.

_____ (1)

ii. How do you change the permission level granted?

_____ (2)

c) The employees also need access to the store printer. Write down the steps needed to share a printer. The first one has been done for you.

Step 1: Open the Control Panel.

_____ (7)

Please turn the page.

Question 10

(12 marks)

The owner doesn't understand why you created different types of accounts for him and his employees. Describe **FOUR** things that an Administrator account can do.

a) _____

_____ (3)

b) _____

_____ (3)

c) _____

_____ (3)

d) _____

_____ (3)