

KULLEĠĠ SAN BENEDITTU Secondary School, Kirkop

Mark

HALF-YEARLY EXAMINATION – 2014/2015

Level 5 - 8

FORM 3

COMPUTING

TIME: 1h 30min

Question	1	2	3	4	5	6	7	8	9	10	11	Global Mark
Max. Mark	5	10	10	10	10	10	10	10	10	10	5	100
Mark												

Instructions to students:

Answer **ALL** questions.

Calculators are **NOT** allowed; Good English and orderly presentation are important.

Read each question carefully.

DO NOT WRITE ABOVE THIS LINE

Name: _____

Class: _____

1. This question is on **Health and Safety**. An office secretary works at a computer all day. There are three main health problems that can arise through continuous use of computers. These are **Backache**, **Eye Strain** and **Repetitive Strain Injury** (RSI).

Write down ONE health problem listed above near the associated precaution. The first one has been done for you as an example. [5 marks]

Precaution	Health Problem
Use comfortable seating	<i>Backache</i>
Use a keyboard with good ergonomic design	
Position of a footrest under the desk	
Look and focus at something in the distance	
Have blinds at the windows	
Eye level must be at the top of the screen	

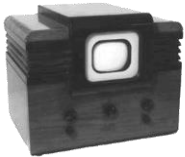
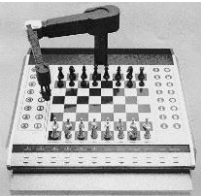


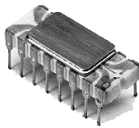
2. This question is on the **History of Computers**.

[10 marks]

- a. Match the statements listed below with the respective picture. Write your answer in the Description column. [5]

<i>Artificial Intelligence is the intelligence showed by machines or software.</i>
<i>Morse code was invented for the telegraph.</i>
<i>The Cathode Ray Tube was invented.</i>
<i>The first written language consisting of characters was created.</i>
<i>Intel built 'a computer on a chip'.</i>

- b. Order the pictures according to TIME. Write down from 1 to 5 in the Order column. (Note: 1 is the oldest and 5 is the latest invented). [5]

Picture	Description	Order
		
		
		
		
		

3. This question is on the **Central Processing Unit**.

[10 marks]

- a. Below is an advert of a home computer system. Fill in the FOUR missing parts of this advert. [4]



CPU

Memory

Dedicated Graphics Memory

Card Reader

Wi-Fi

Intel Core i7-3770 (Quad-Core),
3.4 _____

2TB SATA

6 _____ DDR 3

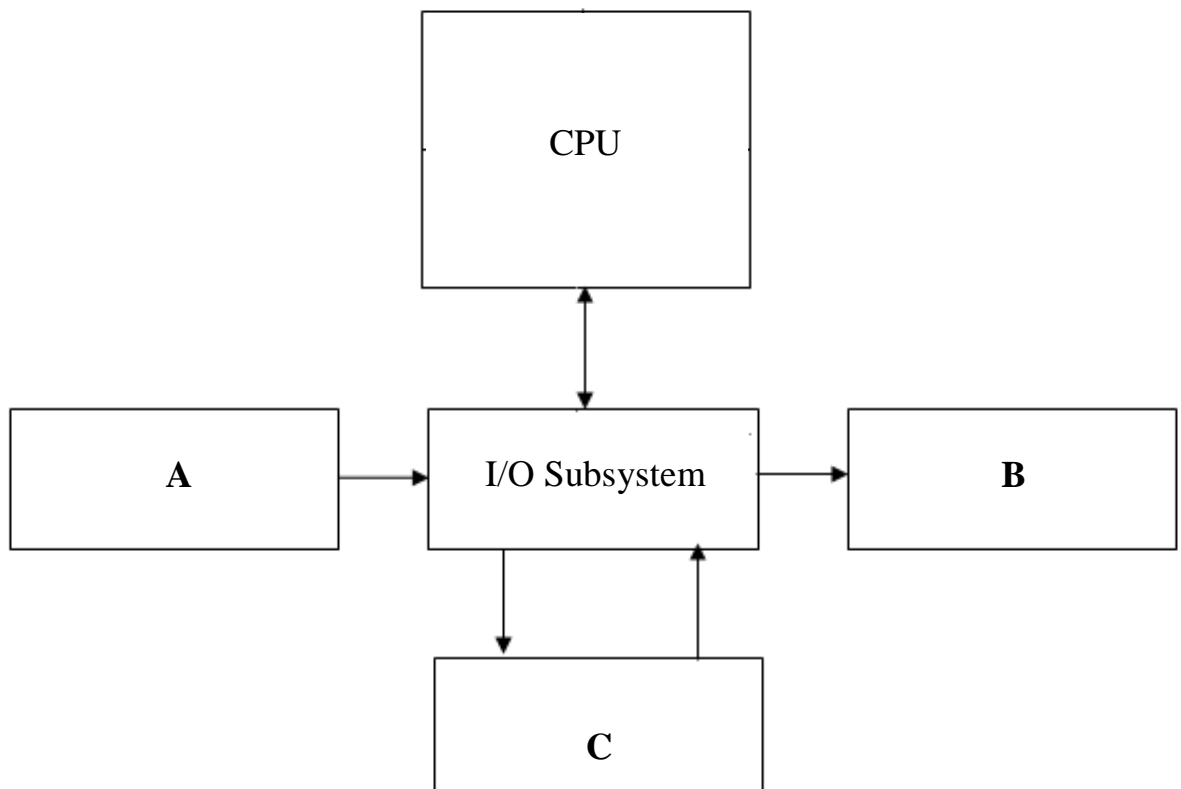
NVIDIA GeForce GT 620

1GB

Yes

Yes

- b. The arrows in the diagram below show the flow of data into and out of a computer. A, B and C represent different parts of the computer.



- i. Give the name of devices A, B and C and describe their function. [6]

	Device Name	Function
A		
B		
C		

4. This question is on different **Types of Computers**. [10 Marks]

- a. Use numbers from 1 to 5 to sort the computers in the table below in order of STORAGE capacity. (Note: 1 refers to the device with least storage and 5 refers to the device with most storage). [5]

Mainframe	Server	Supercomputer	Microcontrollers	Microcomputer

- b. Give SIX examples of different types of microcomputers. [3]

- c. Define the term microcontroller and give an example of this type of computer. [2]

5. This question is on **Storage devices**.

[10 marks]

a. What is each of the following called?

[4]

Binary Digit

8 Bits

1024 KB

1024 GB

b. Order the units of storage below from the largest to the smallest by using the numbers from 1 to 5. (Note 1 is the largest and 5 is the smallest). [2]

MB	GB	KB	TB

c. State whether these storage devices are OPTICAL, MAGNETIC or ELECTRONIC and also write down a typical storage capacity. [4]

	Type of Media	Typical Storage Capacity
Micro SD card		
Hard Disk		
DVD		
Pen Drive		

6. This question is on **Input devices**.

[10 Marks]

a. The following are devices used for inputting error-free data directly to a computer. [3]

OCR MICR OMR

Device No.	Acronym	Full name of device
1	OCR	
2	MICR	
3	OMR	

- b. Put in each adjacent box the device number which: [3]

	Converts printed characters into electronic signals
	Senses a pencil line drawn in a specific position to indicate a particular choice
	Reads magnetic printing on bank cheques

- c. Name and describe a device which is both an input and an output device. [2]

- d. Name and describe ONE SPECIAL input OR output device used by persons with special needs. [2]

7. This question is on **Output devices**. [10 Marks]

- a. Mention ONE output device which produces SOFTCOPY and ONE output device which produces HARDCOPY: [2]

Softcopy: _____ Hardcopy: _____

- b. Two main categories of printers exist: IMPACT and NON-IMPACT. Fill in the table to show to which category each of the following types of printers belong: [5]

Dot matrix Printer

Laser Printer

Chain Printer

Inkjet Printer

Daisywheel Printer

Impact	Non-Impact

- c. When choosing a printer, one has to consider various factors. Mention **THREE** factors which you consider important: [3]

8. This question is on various **computing terms**. [10 marks]

- a. Briefly explain **ONE** main difference between these computing terms.

ROM and CD-ROM [2]

Light Pen and Barcode Reader [2]

Main Storage and Backing Storage [2]

- b. Mention a **unit of measurement** used to indicate each of the following: [4]

Printer Speed: _____

Laser Printer Resolution: _____

Data transfer over a modem: _____

Disk Access Speed: _____

9. This question is on **Computer Logic**.

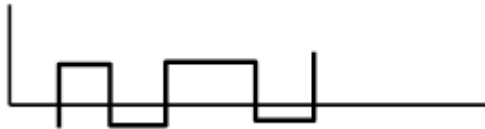
[10 marks]

a. What is the difference between analogue and digital data?

[2]

b. What kind of data do the following signals represent?

[2]



_____ Signal



_____ Signal

c. Complete each row of the table to show the same number in binary, hexadecimal and decimal. Show all the working in the space provided.

[6]

Binary									Hexadecimal			Decimal	
0	0	1	1	0	1	1	1	=			=		
								=	E	B	=		
								=			=	93	

Working for question 9c:

- a. Define the term database. [1]

- b. Tables, forms, queries and reports are four objects used in a database. Explain the function of these objects in the database: [4]

Table: _____

Form: _____

Query: _____

Report: _____

- c. The school library has a computer to help with the issue and returning of books to its students. Each book in the library is assigned a unique number and each student has a membership card with a unique student number. The system uses two main tables – the books file contains a record for each book in the library while the students file contains a record for each student. [0.5 x 4]

- i. Mention a field you would expect to find in the students file. _____

- ii. Mention a data type for the field in question i. _____

- iii. Mention a field you would expect to find in the books file. _____

- iv. Mention a data type for the field in question iii. _____

- v. In a database file, one field has to be unique. Explain why. [1]

- vi. What is this field normally called? _____ [0.5]

- vii. Mention a field in the books or students file which contains unique data. [0.5]

- viii. What kind of storage device would be most suitable for taking backups of the students and the books files? Why? [1]

11. This question is on **Windows and File Management**.

[5 marks]

a. Explain the following terms:

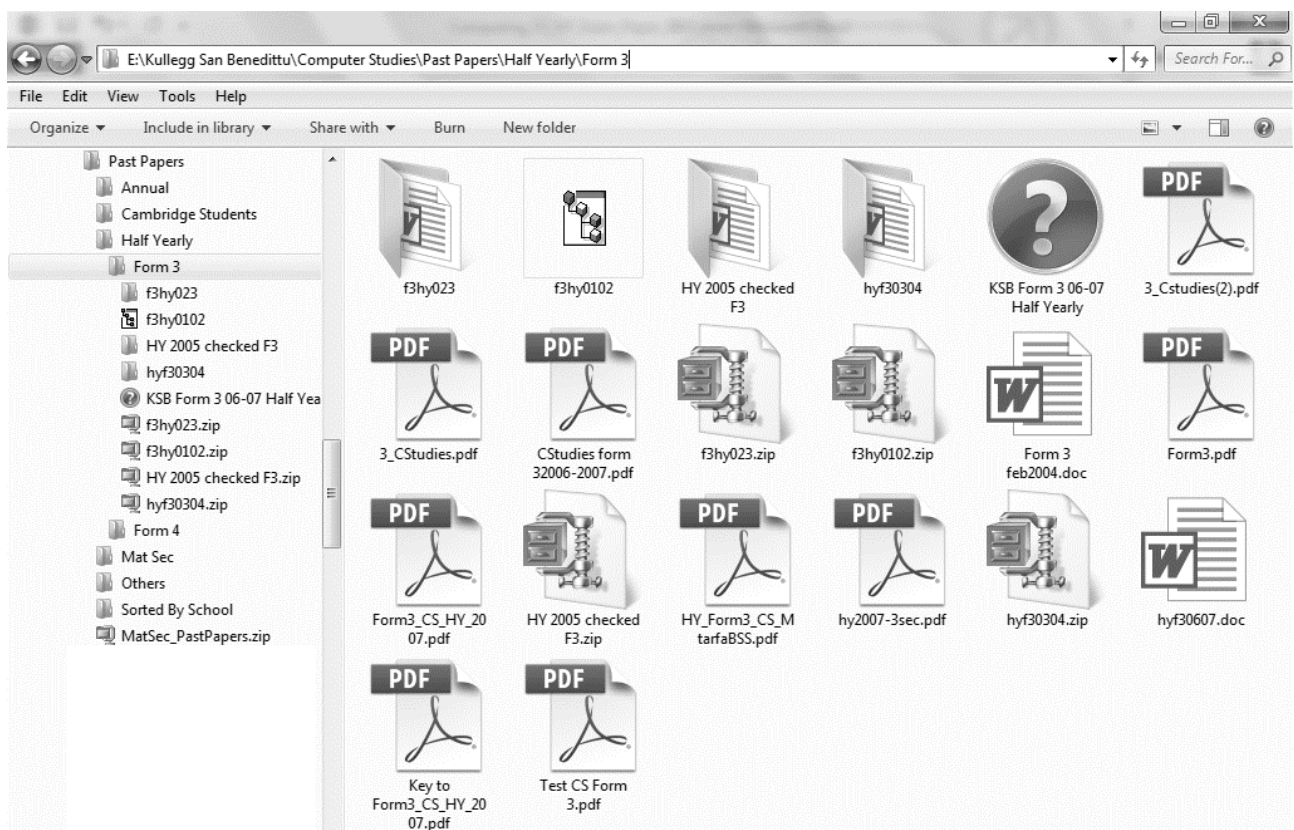
[3]

Format: _____

Defragmentation: _____

Scan Disk: _____

b. The image below represents a **folder structure** on your computer. Look carefully at this image and answer the following questions. [2]



i. What is the name of the selected folder? _____

ii. How many sub folders are there in the selected folder? _____

iii. How many files are there in the selected folder? _____

iv. How many compressed files are there in the selected folder? _____

END OF EXAM