

# ST BENEDICT COLLEGE Secondary School, Kirkop

Mark

## HALF-YEARLY EXAMINATION – 2015/2016

Level 5 - 8

FORM 3

COMPUTING

TIME: 1h 30min

Question	1	2	3	4	5	6	7	8	9	10	Global Mark
Max. Mark	5	10	18	4	13	12	10	12	10	6	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

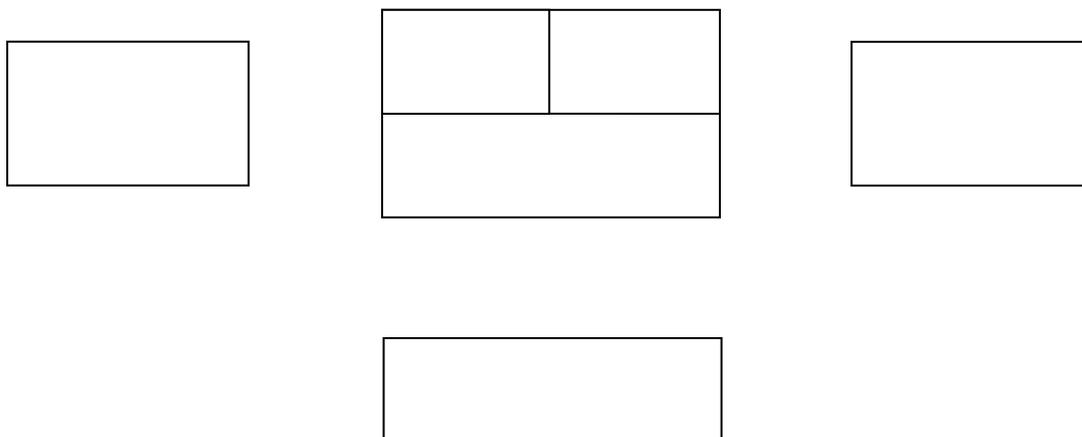
Name: \_\_\_\_\_

Class: \_\_\_\_\_

1. Label the following block diagram of a computer system.

[5 marks]

Don't forget to draw the **arrows** to show the **flow of data** between the units.



**2. Who am I?**

**10 marks**

a. I am a group of 8 bits

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b. I am a storage device which is serially accessed

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c. When the computer is switched off, I forget everything

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d. I continue supplying power to the computer so that the date and time are kept up-to-date

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e. I hold the bootstrap loader

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f. I provide the user with hard copies of his documents

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g. I am used by visually impaired persons to type in data

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h. I am a pointing device and I'm normally found in laptops

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i. I can translate a graphical image into digital data

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j. I am really fast and reliable when inputting data and I am usually found at a point of sale

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**3. This question is about Storage.**

**18 marks**

a. Fill in the table below about different Storage Devices

[15]

	<b>Device</b>	<b>Type</b>	<b>Typical Capacity</b>
a.	Hard disk	Magnetic	
b.	CD		
c.			1.44 MB
d.	Pen Drive		
e.	DVD		
f.			4.7 GB – 54 GB
g.	SD Card		
h.	Solid State Disk		

b. How many Kilobytes are there in 5 MB? \_\_\_\_\_

[1]

c. If one sector in a hard disk holds 512 bytes of data, how many sectors do we need to store a file which is 4KB of size? \_\_\_\_\_

[2]

**4. Write these abbreviations in full**

**4 marks**

a. MICR: \_\_\_\_\_

b. OCR: \_\_\_\_\_

c. OMR: \_\_\_\_\_

d. VDU: \_\_\_\_\_

5. This question is about Databases

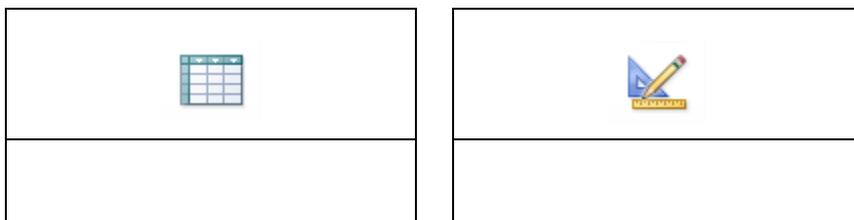
13 marks

a. What is the difference between data and information? [2]

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b. Label the following views which are available in Microsoft Access. [2]



c. Your school decided to computerise the library’s system by creating a database in Microsoft Access. So far they have created two tables, namely the **Student** table and the **Book** table. Answer the questions below about this new database.

i. Choose a suitable **primary key** for each table: [2]

Student table: \_\_\_\_\_

Book table: \_\_\_\_\_

ii. What would be a suitable **data type** for the Student Table primary key? [1]

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iii. List two other **fields** which you should find in each table:

Student table: [2]

- \_\_\_\_\_
- \_\_\_\_\_

Book table: [2]

- \_\_\_\_\_
- \_\_\_\_\_

iv. Mention another database **table** which can be used by the school library. [1]

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v. Mention an **attribute** which can be included in the table you suggested. [1]

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6. Carry out the necessary conversions to fill in the table below

12 marks

*Make sure that you show all necessary working in the space below.*

Decimal	Binary	Hexadecimal
	101 0011	
		A5
45		

*Space for working*


**7. This question is related to Computer Logic.**

**10 marks**

- a. Draw the graphical representations for analogue and digital signals. [2]

Analogue signals	Digital signals

- b. Give a situation when we need to use a digital to analogue converter. [1]

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- c. What do you understand by two state electronic devices? [1]

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- d. How many bits do we need to represent the 12 months of the year? \_\_\_ bits [1]

- e. How many possible values can be represented by 5 bits? \_\_\_ values [1]

- f. Mention two different coding systems. [2]

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

- g. Why is it important to use a standard code when transferring data from one computer to the other? [1]

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- h. If in the collating sequence of a character map, capital letter A is represented by the decimal notation 65, what is the decimal notation for letter G? [1]

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**8. What is the difference between each pair of terms.**

**12 marks**

a. File and Folder

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b. Soft copy and Hard copy

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c. Data and Information

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d. Analogue and Discrete data

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e. Input and Output devices

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f. Backing storage and Backup

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**9. Match the first column with the second column by writing a letter (a – j) next to the related phrase. 10 marks**

a. Plotters	<input type="text"/>	Provides best resolution of all flat panel displays.
b. LCD	<input type="text"/>	Technology used in the first television screens.
c. TFT	<input type="text"/>	Used in multiple choice exam questions.
d. CRT	<input type="text"/>	There are 2 types: Flatbed & Drum.
e. Laser Printer	<input type="text"/>	Has a head full of steel pins.
f. Dot Matrix	<input type="text"/>	Used as a display on calculators.
g. OMR	<input type="text"/>	Is widely used in banking.
h. Pen Computing	<input type="text"/>	Converts image of text into actual text.
i. MICR	<input type="text"/>	Mainly works like a photocopier.
j. OCR	<input type="text"/>	Use a devices like a stylus to select menus.

**10. Fill in the blanks. The first letter of each word is given for you. 6 marks**

- Printers can be classified as **I**\_\_\_\_\_ and **N**\_\_\_\_\_.
- Printers can also be classified as **C**\_\_\_\_\_, **L**\_\_\_\_\_ & **P**\_\_\_\_\_ printers.
- An LCD **P**\_\_\_\_\_ is used to display images or data.
- The **R**\_\_\_\_\_ of the screen determines the clarity of the image.
- Input devices are **P**\_\_\_\_\_ devices used to pass **H**\_\_\_\_\_-**R**\_\_\_\_\_ data to the computer.
- L**\_\_\_\_\_ is sometimes called wand or stylus.
- G**\_\_\_\_\_ **T**\_\_\_\_\_ allows users to draw images on the computer.
- An advantage of a **D**\_\_\_\_\_ **C**\_\_\_\_\_ is that it easily captures images which can later be manipulated.