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St. Nicholas College Naxxar Boys Secondary
Half-Yearly Examinations
February 2015

Track/Level
5-8

FORM 3

COMPUTING

TIME: 2 hours

Name _____

Class _____

Attempt ALL questions.

SECTION A: The Computer System

1. There are different TYPES of computer systems. WHICH of them is: [3]
 - a. The most powerful computer: _____
 - b. A computer system that is easy to carry around: _____
 - c. A computer system that is used by banks and airline companies: _____

2. WHAT is the **DIFFERENCE** between DATA and INFORMATION? [2]

Data: _____

Information: _____

3. WHAT is the **DIFFERENCE** between HARDWARE and SOFTWARE? [2]

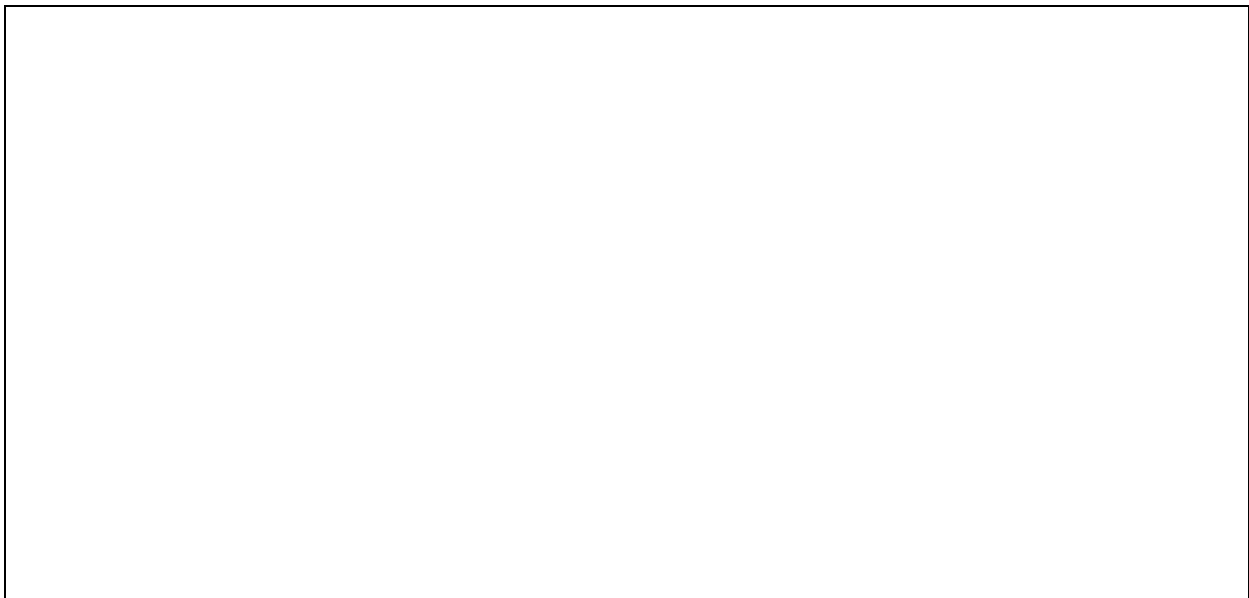
Hardware: _____

Software: _____

4. A computer system is made up of different PARTS. WHICH are the **FIVE** main parts of a computer system? [5]
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____

5. Draw a DIAGRAM to show how the five parts (named in question 4) WORK TOGETHER.

[6]



6. FILL IN the blanks using the words below.

[15]

devices
path
reports

buses
addresses
main memory

backing
control
data

address
components
both

CPU
system
passes

The computer system is made up of four main _____. Data is input through the input _____, which is then stored in the _____ and processed by the _____. Once it is processed it can either be stored in _____ storage, output using the output devices, or else _____.

These components communicate between themselves using _____. The _____ bus is the main _____ between components and consists of two buses: the _____ bus and the _____ bus. The data bus is the bus through which data _____, while the address bus is the bus through which _____ pass. There is also a _____ bus, which _____ the status of the components.

7. WHAT is the **DIFFERENCE** between MAIN MEMORY and SECONDARY STORAGE? [2]

Main memory: _____

Secondary Storage: _____

SECTION B: Computer Logic

8. WHAT is the **DIFFERENCE** between ANALOGUE and DIGITAL data? [2]

Analogue: _____

Digital: _____

9. Give an **EXAMPLE** of an analogue and a digital **SIGNAL**. [2]

Analogue: _____

Digital: _____

10. WHY is the computer called a TWO-STATE device? [1]

11. **CONVERT** the following numbers between binary, decimal and hexadecimal. [10]

Decimal	Binary	Hexadecimal
79		
	10001000	
		20
	110010	
		A5

Working:

12. WORK out the following code, by converting the binary numbers to digits using the coding system below. [10]

Coding System:

A	B	C	D	E	F	G	H	I	J
1	2	3	4	5	6	7	8	9	10
K	L	M	N	O	P	Q	R	S	T
11	12	13	14	15	16	17	18	19	20
U	V	W	X	Y	Z		!	?	.
21	22	23	24	25	26	27	28	29	30

CODE	DECIMAL	BINARY					
		32	16	8	4	2	1
G							
O							
O							
D							
L							
U							
C							
K							
!							

13. Draw the SYMBOL for the logic gates in the spaces below. [3]

AND

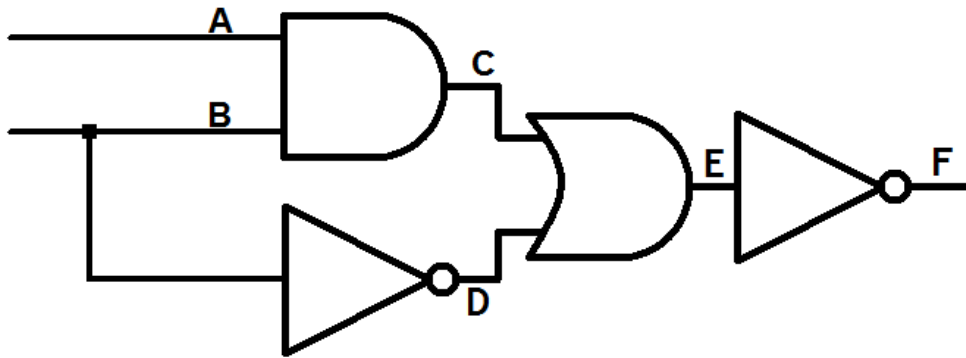
OR

NOT

14. What is the PURPOSE of a truth table? [1]

15. FILL IN the truth table for the following logic circuit.

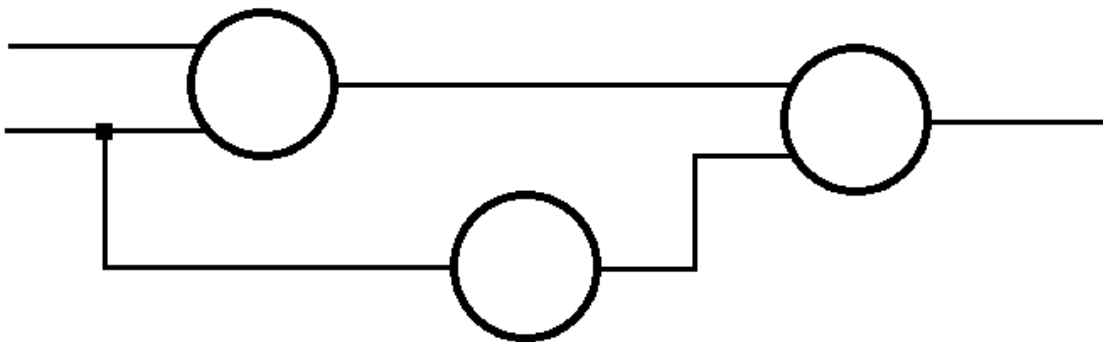
[8]



A	B	C	D	E	F
0	0				
0	1				
1	0				
1	1				

16. LABEL the logic gates in the circuit below and FILL IN the truth table.

[4]



A	B	C	D	E
0	0	0		0
0	1	1		0
1	0	1		1
1	1	1		0

SECTION C: Input and Output Devices

17. Classify the following devices into INPUT and OUTPUT by writing them in the appropriate column. [5]

Braille keyboard *Eye sensor reader* *Microphone* *Braille printer* *Laser printer*
Headphones *Monitor* *Barcode reader* *Digital camera* *Plotter*

Input Devices	Output Devices

18. For each of the following devices, give a suitable USE. [5]

- a. MICR: _____
- b. OMR: _____
- c. Graphics tablet: _____
- d. Barcode reader: _____
- e. Eye sensor reader: _____

19. Write ONE advantage of each of the following input devices. [5]

- a. Keyboard: _____
- b. OMR: _____
- c. Trackball: _____
- d. Barcode reader: _____
- e. Eye sensor reader: _____

20. Give an EXAMPLE of a BIOMETRIC device: _____ [1]

21. WHAT do the following ABBREVIATIONS related to printers STAND FOR? [3]

a. cps: _____

b. dpi: _____

c. ppm: _____

22. State a SITUATION where it is best to USE the following printers? [3]

a. Dot-Matrix printer: _____

b. Inkjet printer: _____

c. Laser printer: _____

23. What is the DIFFERENCE between VECTOR and RASTER images? [2]

a. Vector images: _____

b. Raster images: _____

END OF PAPER