

Fundamentals of Computing for Healthcare

Medical Technology Year 1

Class Test

Monday 24th April 2023

Instructions:

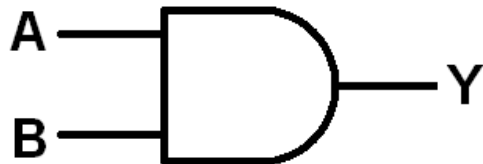
Answer All questions

Question 1

(20 Marks)

(a) Complete the truth table for the following logic diagram:

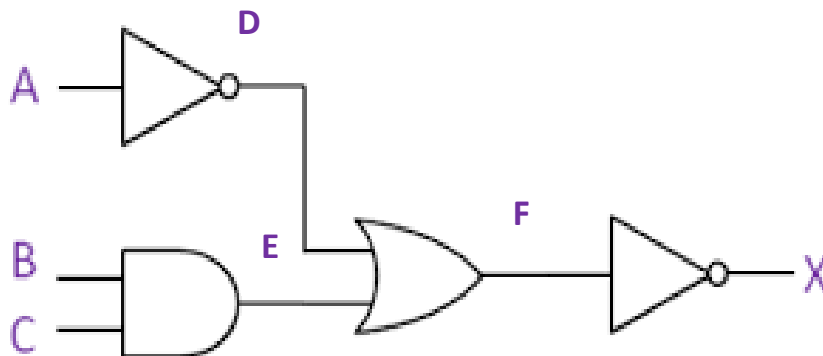
(2 Marks)



A	B	Y

(b) Complete the truth table for the following logic diagram:

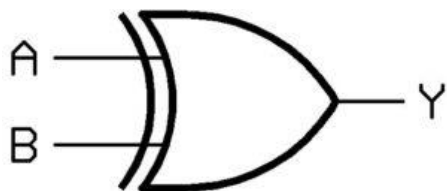
(12 Marks)



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

(c) Complete the truth table for the following logic diagram:

(6 Marks)



A	B	Y

Question 2**(20 Marks)**

- (a) How many bits in a MB? (2 Marks)
- (b) Explain the difference between primary storage (memory) and secondary storage on a computer and give two examples of each. (10 Marks)
- (c) Describe the components of the CPU (8 Marks)

Question 3**(20 Marks)**

- (a) What is the largest number you can store in 1 byte? (2 Marks)
- (b) Describe how text, integers and floating point numbers are stored in a computer. (12 Marks)
- (c) Describe how a colour photograph might be stored on a computer. (6 Marks)

Question 4**(20 Marks)**

- (a) Convert the following numbers to the base specified. You must show your workings:

From Base	Number	To Base
Binary	11110001	Octal
Octal	5701	Decimal
Hex	CF01	Binary
Decimal	1587	Hex