BRAINWARE UNIVERSITY

Term End Examination 2022
Programme – B.Sc.(BT)-Hons-2018/B.Sc.(BT)-Hons-2019/B.Sc.(BT)-Hons-2020
Course Name – Computer Application
Course Code - BBT503C1/BBTD501C
(Semester V)

Full Marks : 60   **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)   1 x 15=15

1. *Choose the correct alternative from the following :*

(i)   Convert the following decimal number to 8-bit binary. 187

   a) 10111011   b) 11011101
   c) 10111101   d) 10111100

(ii) Which of the following is not an operator in C?

   a) sizeof()   b) ~
   c) none of these   d) ,

(iii) Which of the following is not possible statically in C language?

   a) Jagged Array   b) Rectangular Array
   c) Cuboidal Array   d) Multidimensional Array

(iv) Subtraction in computers is carried out by -

   a)   1's complement   b)   2's complement
   c)   3's complement   d)   9's complement

(v)   Which of the following is the smallest entity of memory?

   a) block   b) cell
   c) instance   d) set

(vi) The BCD number for decimal 347 is _____.

   a) 1100 1011 1000   b) 0011 0100 0111
   c) 0011 0100 0001   d) 1100 1011 0110

(vii) The bit used to indicate whether the block was recently used or not is _____

   a) Reference Bit   b) Dirty Bit
   c) Control Bit   d) Idol Bit

(viii) Which of the following operations is/are performed by the ALU?

   a)   Data manipulation   b) Exponential
   c) Square root   d) All of the above

(ix) The full form of ECL is _____

   a) Emitter-collector logic   b) Emitter-complementary logic
   c) Emitter-coupled logic   d) Emitter-cored logic

(x)   The high input impedance of MOSFETs:

a) allows faster switching

b) reduces input current and power dissipation

c) prevents dense packing

d) creates low-noise reactions

(xi) What is the range of invalid TTL output voltage?

a) Low power consumption

b) 0.4–2.4 V

c) 2.4–5.0 V

d) 0.0–5.0 V

(xii) A processor performing fetch or decoding of different instruction during the execution of another instruction is called _____

a) Super-scaling

b) pipe linning

c) parallel computation

d) none of these

(xiii) The bus used to connect the monitor to the CPU is _____

a) PCI BUS

b) SCSI BUS

c) MEMORY BUS

d) RAM BUS

(xiv) To extend the connectivity of the processor bus we use _____

a) PCI BUS

b) SCSI BUS

c) controllers

d) multiple bus

(xv) A 2-input gate that can be used to pass a digital waveform unchanged at certain times and inverted at other times is a(n) _____.

a) AND

b) OR

c) NAND

d) XOR

Group-B
(Short Answer Type Questions)   3 x 5=15

2. $(10110.001)_2 = ()_{10}$ (3)
3. $(111110101011.0011)_2 = ()_8$ (3)
4. Differentiate between calloc() and malloc()   (3)
5. Explain what is a half-adder?   (3)
6. Represent the decimal number 102 in unsigned binary numbers.   (3)

OR

The difference between accumulator-based and register-based CPU architecture?   (3)

Group-C
(Long Answer Type Questions)   5 x 6=30

7. Properties of Boolean algebra   (5)
8. Define ------------ a) combinational circuit b) sequential circuit   (5)
9. How is a Function declared in C Language?   (5)
10. What is the purpose of printf() and scanf() in C Program?   (5)
11. Mention the features of C Programming Language.   (5)
12. Explain basic operation of computer.   (5)

OR

Difference between volatile and non volatile memory?   (5)

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