BRAINWARE UNIVERSITY

Term End Examination 2023
Programme – BCA-2019/BCA-2020/BCA-2021
Course Name – Computer Application and Hardware
Course Code - BCAC102
(Semester I)

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) In MS Word, Ctrl+S is the shortcut key to-

a) Save a document
b) Paste a word
c) Copy a document
d) Select a document

(ii) Shortcut key for Copy & Paste in MS Word is -

a) Ctrl +C & Ctrl +V.
b) Ctrl +X & Ctrl+V.
c) Ctrl +A & Ctrl +S.
d) Ctrl +C & Ctrl +S

(iii) To apply center alignment to a paragraph we can press apply -

a) Ctrl + C
b) Ctrl + E
c) Ctrl + S
d) Ctrl + C + A

(iv) Which command transfers a specified file from one disk to other disk in DOS ?

a) Copy
b) Diskcopy
c) Time
d) Rename

(v) UNIX is _____ .

a) An operating system
b) A text editor
c) A popular programming language
d) A special version of DOS

(vi) The programming language to scripting UNIX is

a) Java
b) C
c) C++
d) Python

(vii) The expression can be implemented using either 2 level AND-OR Logic or 2 level NAND logic circuits

a) POS
b) SOP
c) Literals
d) Logical

(viii) An inverter gate may be implemented using -

a) Two diodes
b) A resistance and a capacitance
c) Transistors
d) An inductance and capacitance

(ix) The output of two input OR gate is high -

a) Only if both inputs are high
b) Only if both inputs are low
c) Only if one input is high, other is low
d) Only if at least one input is high

(x) Which of the following circuits come under the class of sequential logic circuits?
Case:1. Full adder Case:2. Full subtractor Case:3. Half adderCase: 4. J-K flip Case: 5.
Counter

a) 1 and 2
b) 2 and 3
c) 3 and 4
d) 4 and 5

(xi) If an active-HIGH S-R latch has a 0 (zero) on the S input and a 1 on the R input and then the R input goes to 0, the latch will be _____

a) SET
b) RESET
c) CLEAR
d) INVALID

(xii) A combinational circuit is one in which the output depends on the:

a) Input combination at the time
b) Input combination and the previous output
c) Input combination at that time and the previous input combination
d) Present output and the previous output

(xiii) The output of a full subtractor is same as:

a) Half adder
b) Full adder
c) Half subtractor
d) Decoder

(xiv) Which of the following circuit can be used as parallel to serial convertion?

a) Multiplexer
b) Demultiplexer
c) Decoder
d) Digital counter

(xv) In 1-to-4 demultiplexer, how many select-lines are required?

a) 2
b) 3
c) 4
d) 1

Group-B
(Short Answer Type Questions)

3 x 5=15

2. Define the term priority encoder with the necessary circuit diagram. (3)
3. What is the negative logic gate, Explain with examples. (3)
4. With the necessary circuit diagram, prove that NOR is a universal gate. (3)
5. Describe the J-K flip-flop with a proper diagram. (3)
6. What are Microsoft DOS and Windows Command Line? (3)

OR

In DOS how to copy all files from one drive to another? (3)

Group-C
(Long Answer Type Questions)

5 x 6=30

7. Simplify the expression with K map: $Y=A'B'C'+A'BC'+AB'C'+AB'C+ABC'+ABC$ (5)
8. why D flip flop is called Delay flip flop? Explain in brief. (5)
9. Describe the complete process of Mail merge, and also Explain the limitation of Mail merge. (5)
10. Explain the process model of Unix? (5)
11. What are counters in sequential circuits? Explain in brief. (5)
12. What is meant by encoder and decoder? (5)

OR

What is the difference between an encoder and a multiplexer? (5)

****