Seat No: _____   Enrollment No:_____

PARUL UNIVERSITY
FACULTY OF IT & COMPUTER SCIENCE
PARUL INSTITUTE OF COMPUTER APPLICATION
BCA/IMCA 2019–20 Mid Semester Examination

Semester: 1   Date: 03/09/2019
Subject Code: 05101101/05301101   Time: 10:00 TO 11:30
Subject Name: Fundamentals of Computer & PC Software   Total Marks: 40

Instructions:
1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

Q.1   Answer the following.   **[10]**

(a)   1. What are RAM and ROM?   **[3]**

2. What is CD-R?

3. What is Supercomputer? Write the name of Supercomputers.

(b)   1. Which unit is responsible for converting the data received from the user into a computer   **[7]**
understandable format?

[A] Memory Unit   [B] Arithmetic & Logic Unit   [C] Input Unit   [D] Output Unit

2. The smallest unit of data in computer is _____

[A] Byte   [B] Nibble   [C] Bit   [D] KB

3. ALU is the place where the actual executions of instructions take place during the
processing operation.

[A] True   [B] False

4. The input hexadecimal representation of 1110 is _____

[A] 0111   [B] E   [C] 15   [D] 14

5. The weights used in Binary coded decimal code are:

[A] 4,2,1   [B] 8,4,2,1   [C] 6,4,2,1   [D] 2,1

6. A _____ gate gives the output as 1 only if all the inputs signals are 1.

[A] AND   [B] OR   [C] EXOR   [D] NOR

7. A printer that prints one line at a time and has a predefined set of characters is called
_____

[A] Laser   [B] Drum   [C] Inkjet   [D] Impact

Q.2 **Answer the following.**(2 or 3 mark questions) **[10]**

(a) 1. Find the 2's Complement of following binary numbers [4]

    1) 111   2) 10101

    2. Differentiate First Generation Computer and Second Generation Computer.

(b) 1. Explain the Actions perform by Pointing Device. [6]

    2. Write short note on Keyboard.

Q.3 **Attempt any TWO.** **[10]**

1 Explain the different types of Programming Languages. [5]

2 Convert following to equivalent binary, octal & hexadecimal [5]

    1) 127   2) 255   3) 128   4) 1252

3 Perform the following Operation [5]

    1) 1001 + 1110 2) 100001 – 11101 3) 11101 * 101 4) 10010 / 100

Q.4 **Answer the following.** **[10]**

(a) Draw the Block Diagram of Computer and discuss its various components. [5]

(b) Discuss the Output device. Explain different types of printers used as output devices. [5]

OR

(b) Discuss the Basic Logic Gates. Explain Universal Gates in detail. [5]