Bhartiyam International School

Pre-Mid Term Assessment (2022-23)
Subject: Computer Science
Class: XI

Date: 02/08/2022   M.M: 40

Name: _____   Roll No: _____   Duration: 90 Mins

1. Fill in the blanks   **(1 x 5=5 Marks)**

a) _____ means the capacity to perform various types of work simultaneously or one after another.

b) Device drivers and language are the types of _____ software.

c) In decimal to octal conversion, the given decimal number should be divided by number _____ to convert to octal number.

d) In the binary number 10101001, the rightmost bit is called _____.

e) The NAND and NOR logical gates are called _____ gates.

2. Draw the *Symbol* and *Truth Table* for 2-inputs, for the below Logical Gates.

         (2 x 5=10 Marks)

a) AND Gate   b) OR Gate   c) NAND Gate

d) XOR Gate   e) XNOR Gate

3. Short answer type questions.   **(2 x 5=10 Marks)**

a) Distinguish between ALU and CU.

b) What is software? List different types of software .

c) Write any four functions of the operating system ?

d) Convert $(A35.D6)_{16}$ to its decimal equivalent by multiplication method.

e) Convert $(18.765625)_{10}$ to Hexadecimal by division method.

4. Long answer type questions.   **(5 x 3=15 Marks)**

a) Prove and state *Idempotent Law* and *Absorption Law* with the help of Truth Table.

b) Draw a logic circuit for XNOR operation $(A \oplus B)$ using NAND gates.

c) Draw a Boolean circuit for the expression, F=AB+BC(B+C).