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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST-1 EXAMINATION- SEPTEMBER -2019
B.Tech I Semester (All Branches)

COURSE CODE: 18B11CI111

MAX. MARKS: 15

COURSE NAME: Programming for Problem Solving-I

COURSE CREDITS: 03

MAX. TIME: 1 HRS

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

[CO1] 1. Explain components of a computer with suitable block diagram. Also show components of a microprocessor (CPU) in your block diagram. Assume that a program is stored in hard disk of a computer. How this program will be executed by the computer?

[3]

[CO3] 2. Explain different types of errors in a program with suitable examples. Show the role of assembler, compiler, linker, and loader to execute a c program with the help of a block diagram.

[3]

[CO2] 3. Make a flowchart of the logic used to multiply two numbers without using * operator.

[3]

[CO1] 4. Explain the concept of implicit and explicit type casting with suitable simple c programs. Note: Make separate C program for each concept and illustrate the output.

[3]

[CO3] 5. Evaluate the expression $n = a * a / i + i / 2 * t + 2 + t + i * a / 2 \% 10$ step by step and discuss the precedence and associativity of operators at each step. Note: i , a and n are of type integer. t is a float type variable and initialized as 4.2. i and a are initialized as 3 and 4.

[3]