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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- September 2016

B.Tech/ 1st Semester

COURSE CODE: 13B21CI121 MAX. MARKS: 15

COURSE NAME: Introduction to Computers and Basic Programming

COURSE CREDITS: 04 MAX. TIME: 1Hr

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

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(1) Fill in the blanks (0.5 mark each)

i. Translator programs called _____ convert high-level language programs into machine language.
ii. A key problem with procedural programming is that the program units do not effectively mirror real-world entities, so these units are not particularly _____.
iii. The C preprocessor obeys special commands called _____, which indicate that certain manipulations are to be performed on the program before compilation.
iv. Errors like _____when a program is running is called runtime errors or execution time errors.
v. _____ and similar trends are in relation to the amount of memory that computers have for programs, the amount of secondary storage they have to hold programs and data over longer periods of time, and their processor speeds—the speeds at which computers execute programs .
vi. A _____ error is caused when the compiler cannot recognize a statement.

(2) Fill in the blanks (1 mark)

```
void main()
{
  int a ;
  float b,c,d ;
  c = 5.0 ;
}
```

In the above example:

*, /, -, + are the _____ operators.

= is the _____ operator.

a is an _____ variable.

(3) What is the output of the following code? (1 mark)

```
void main( )
  {
    int x = 3, y = 5 ;
     if ( x == 3 )
       printf ( "\n%d", x ) ;
     else ;
       printf ( "\n%d", y ) ;
  }
```

4) While purchasing certain items, a discount of 10% is offered if the quantity purchased is more than 1000. If quantity and price per item are input through the keyboard, write a program to calculate the total expenses. (3.5 marks)

5) Write a flowchart to check if a number is prime or not. (3.5 marks)

6) Explain the Von Neumann Model in detail. (3.0 marks)