Dr. Vivek Sehgal

Roll No:.....

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST-1 – September 2017

B.Tech (CSE/IT/ECE/CE/BI) 1st Semester

COURSE CODE: 10B11CI111 MAX. MARKS: 15

COURSE NAME: Introduction to Computers and Programming

COURSE CREDITS: 04 MAX. TIME: 1 Hrs

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

1. (a) Draw and explain the block diagram of computer. [2]

   (b) How to execute READ and WRITE operations in memory? [1]

   (c) Draw and explain the various phases of Typical C Program Development Environment [2]

2. (a) Subtract using 2's complement: 100010101111 - 110 [1]

   (b) Covert $(24.625)_{10}$ in a binary number. [1]

   (c) Calculate the value of following Single-precision IEEE floating point number: [2]

   10111111011000000000000000000000 [2]

3. (a) Find out the outputs of the following codes:

```
#include <stdio.h>
int main()
{
  int a = 10, b = 5, c = 5;
    int d;
    d = a == (b + c);
    printf("%d", d);
}
```

```
#include <stdio.h>
int main()
{
  int y = 10000;
  int y = 34;
printf("Hello World! %d\n", y);
    return 0;
}
```

```
#include <stdio.h>
void main()
{
    int x = 0;
    if (x == 0)
      printf("hi");
    else
  printf("how are u");
  printf("hello");
}
```

```
#include <stdio.h>
int main()
{
    int x = 1;
    if (x > 0)
  printf("inside if\n");
    else if (x > 0)
  printf("inside elseif\n");
}
```

   (b) WAP to print odd and even number, entered by user, using: (i) if-else (ii) conditional operator. [2]

   (c) WAP to reverse five-digit number and if the number is greater than its reverse than divide is with its reverse, otherwise multiply it with its reverse. [2]

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