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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- Oct 2017

B.Tech 1st Semester

COURSE CODE: 13B21CI121

MAX. MARKS:15

COURSE NAME: Introduction to Computers and Basic Programming

COURSE CREDITS: 4

MAX. TIME: One Hr

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

1. Write a C program to input electricity unit charges and calculate total electricity bill according to the given condition: (3.5)
For first 10 units Rs. 0.60/unit
For next 200 units Rs. 0.75/unit
For next 300 units Rs. 1.50/unit
For unit above 250 Rs. 2.50/unit
An additional surcharge of 30% is added to the bill
2. Write a C program to input any character and check whether it is alphabet, digit or special character. (3)
3. Explain Von Neumann Model in detail. (3.5)
4. All following questions are 1 mark each

(i) What will be the output of the following code?

```
#include <stdio.h>
void main()
{
    int z = 20;
    if (z < 1)
        printf("hello");
    if (z == 20)
        printf("hi");
    else
        printf("no");
}
```

(ii) Find out the error in the following code if any
main()

```
{
```

CI-17, BT

```

int a = 10, b = 12 ;
if ( b >= a )
{
    {
        b = a ;
        a = b ;
    }
}
}

```

(iii) What will be the output of the following code?

```

main()
{
    int k = 35 ;
    printf ( "\n%d %d %d", k == 35, k = 50, k > 40 ) ;
}

```

(iv) What will be the output of the following code?

```

main()
{
    int x = 10 , y = 80 ;
    if ( x == y )
        printf( "x is equal to y" ) ;
    elseif ( x > y )
        printf( "x is greater than y" ) ;
    elseif ( x < y )
        printf( "x is less than y" ) ;
}

```

(v) Convert the following

$$(28)_8 = (\text{-----})_2$$