

JK Lakshmipat University, Jaipur

Institute of Engineering and Technology

End Term Examination, First Semester 2013-2014

B.Tech. I Year



Course Name: Computer Programming & IT

Course Code: CSE101

Name:

Max marks: 40

Time: 3 hr

Roll No.....

It is assumed that, Programs run under DOS environment (16 Bit), the underlying machine is an x86 systems, Program is compiled using Turbo C/C++ compiler.

Instructions: - 1. Calculators and mobile phones are not allowed.

2. Don't use hard coding in Programs otherwise marks will deducted.

Section A

Q1. Predict the output or error(s) for the following:

0.5 mark each

a) void main()
{ char *ch;
printf("%d ", sizeof (ch));
}

b) int main()
{ printf("Goood Morning");
int main();
}

c) void main()
{int k=2;
printf ("k=%d",--2);
}

d) #define int char
void main()
{ int x=76;
printf("x= %d ",sizeof(x));
}

e) void main()
{ int i=5;
i = ! i < 10
printf ("I =%d " i);
}

f) void main()
{ int a=5 ;
printf (" %d %d %d %d",++a, a++, --a, a);
}

g) void main ()
{ const int z=6;
Int y = ++z;
printf("z=%d", z);
}

h) void main()
{ char str []= "abcdef\0";
printf ("%d",strlen(str)); }

i) void main ()
{ char *str= "IET";
printf("%c",++ * (str++));

j) void main()
{ int a=4;
Int *p1= &a, *p2=&p1;
a +=2;
*p1 += 3;
*p2 += 5;
printf ("%d %d %d",a, *p1, *p2);
}

Q2. Give answer for the following.

2 Marks each

- A. What are various loops in C programming explain with example?
- B. Differentiate between call by value and call by reference?
- C. What are the various storage classes for variables?
- D. Define a function. Why they are needed?
- E. Give the advantages of using pointers?

Section B

Q3. Do the following conversions:

1 marks each

- (a) $(8465)_{10} = (?)_2 = (?)_8 = (?)_{16}$
- (b) $(?)_{10} = (1001101010101)_2 = (?)_8 = (?)_{16}$
- (c) $(?)_{10} = (?)_2 = (5735)_8 = (?)_{16}$
- (d) $(?)_{10} = (?)_2 = (?)_8 = (B34AC)_{16}$
- (e) Find 2's complement of $(6482)_{10}$
- (f) $(59406)_{10} = (?)_2 = (?)_8 = (?)_{16}$
- (g) $(?)_{10} = (?)_2 = (67372)_8 = (?)_{16}$

Section C (3*6=18 marks any Six)

Q4. Write a program to reverse a given string without using string.h ?

Q5. WAP using functions to perform calculator operations. (add, subtract, divide and multiply)

Q6. Write a program to generate the following pattern: (Using Loops)

```
1
121
12321
1234321
123454321
```

Q7. Write a program to find mean and sum of an array having 10 values?

Q8. WAP to print the series and sum of given series up to 15 terms:-
0, 1, 4, 9, 16, 25, 36.....

Q9. Write a program to find sum of digits of a given number and also to find the reverse of that given number?

Q10. Write a C program using structure to find student grades in a class of 50 students. Using structures

Before writing program make some assumption as following :

Maximum total marks is 500. Five courses of 100 each

Student_Marks_avg	Grades
≥ 80	A
≥ 60	B
≥ 50	C
≥ 40	D
< 40	F

*****Good Luck*****