SEAT No.:

F.Y.B.Sc. (Computer Science)
CS-111: Problems Solving Using Computer and 'C' Programming
(2019Pattern) (CBCS) (Semester-I)

[Time: 2 Hours]   *[Max.Marks:35]*

Instructions to the candidates:
  1) *All questions are compulsory.*
  2) *Figures to the right indicate full marks.*
  3) *Assume suitable data if necessary.*

Q1) Attempt any **Eight** of the following: [8×1=8]

a) What is a compiler?

b) What are two types of static variable?

c) Define pseudocode.

d) List the various data types in 'C' language.

e) What is the use of break & continue statement?

f) Write the syntax for nested if-else loop.

g) What is Constant?

h) List the different storage classes.

i) What is an escape sequence?

j) State the applications of arrays.

Q2) Attempt any **Four** of the following: [4×2=8]

a) Explain for loop with example.

b) Explain the use of Sizeof () function.

c) Define algorithm. Explain its characteristics

d) Write a note on: I) Structure II) Union

e) Explain array with its type.

P.T.O.

Q3) Attempt any **Two** of the following: [2×4=8]

a) Write an algorithm and flowchart for swap of two numbers.

b) Explain recursive functions with example.

c) Write a c program to find out factorial of a number.

Q4) Attempt any **Two** of the following: [2×4=8]

a) Trace the output for the following:

i)
```c
#include<stdio.h>
int main()
{
  int n;
  for(n = 7; n!=0; n--)
    printf("n = %d", n--);
  getchar();
  return 0;
}
}
```

ii)
```c
int main()
{    char str[10]="Hello";
     printf("%d,%d\n",strlen(str),sizeof(str));
     return 0;
}
```

b) What is structure of C Program?

c) Explain different types of operators available in C.

Q5) Attempt any **one** of the following: [1×3=3]

    a)   Write a program in 'C' to Program to find Sum of N input Numbers.

    b)   Write a C program to print following pattern for n lines.

```
1
2    3
4    5    6
7    8    9    10
```

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