

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 199239

Roll No.

B. TECH.

Theory Examination (Semester-II) 2015-16

COMPUTER PROGRAMMING

Time : 3 Hours

Max. Marks : 100

Note: Attempt all sections.

Section-A

1. Attempt all parts. Each part carries 2 marks. (2×10=20)

- (a) What is pointer and how is it initialised?
- (b) Write is the role of ALU? Explain.
- (c) What is the difference between following directives?
`#include<stdio.h>` and `#include "stdio.h"`
- (d) Describe the functions of Operating System.
- (e) What are the escape sequences characters?

- (f) What is enumerated data type?
- (g) What is the output of this C code?

```
int main()
{
    int x = 4;
    x = x << 1;
    printf("%d\n", x);
}
```

- (h) What happens if you create loop that is never ended?
- (i) Why C programming is called structured programming?
- (j) What is the value of x for $x = -17\% - 2$.

Section-B

2. Attempt any five questions. Each part carries 10 marks.
(10×5=50)

- (a) Write a program in 'C' to reverse a string through pointer.
- (b) Write about the formatted and unformatted Input / Output functions in C.
- (c) Write a program in 'C' print Fibonacci series using recursive function.

- (d) Draw a flow chart and write an algorithm to find sum and average of 3 numbers.
- (e) Explain with the help of an example, static and extern variable.
- (f) Compare the switch- case and nested if statement in C language with suitable example.
- (g) Write a program in 'C' to find that the given number is prime or not.
- (h) Differentiate between structure and union in 'C'. Write a 'C' program to store the employee details using structure.

Section-C

Attempt any two questions. Each question carries 15 marks.

(15×2=30)

- 3. (i) Differentiate between break and continue with suitable example.
- (ii) Write the difference between type conversion and type casting.

4. (i) List out various file operations in C. Write a C program to count the number of characters in a file
- (ii) What are the different types of Operator in C language and also write down the difference between the associativity and precedence of operators.
5. (i) Write a program in 'C' to multiply the two matrices of size $M \times N$.
- (ii) Explain the following:
- (a) Preprocessor
 - (b) Double precision
 - (c) Array of Structures