Undergraduate Examination 2018
Semester-I (CBCS)
Computer Science
Generic Elective Course (GEC-1)
(Introduction to Programming)

Time : 3 Hours **Full Marks : 40**

Questions are of value as indicated in the margin

Answer Question **No.1** and **any four** from the rest

1. Answer **any four** of the following : 4×2=8
   a) What is the full form of EBCDIC and ASCII?
   b) Write a statement to print a \ (back slash) using *print*f() function? What would be the return value of *fopen*() function if it is unable to open the specified file?
   c) What is the difference between *print*f() and s*print*() functions?
   d) What is an infinite loop? Explain with an example.
   e) What is the purpose of *fseek*() and *ftell*() functions?
   f) Write the use of *strlen*() and strcpy() functions?
2. a) What are the entry-control and exit-control loops? Give examples.
   b) Briefly explain the purpose of the break and continue statements with examples.
   c) What would be the output of the following programme?

```
void main(){
        int k, j = 2;
        switch (k = j + 1){
                case 0 : printf("\nTailor");
                case 1 : printf ("\nTutor");
                case 2 : printf ("\nTramp");
                default : printf ("\nPure Simple Egghead!");
        }
}
```

3+3+2=8

3. a) What would be the output of the following code?

```
void main(){
        int x = 20,y=35
        x=y++ + x++;
        y= ++y + ++x;
        printf("%d%d\n",x,y);
}
```

   b) What is ternary operator? Write a programme to find the smallest among the three numbers using ternary operator.
   c) What is the difference between *call* by *value* and *call by address*? Explain with suitable example. 2+(1+2)+3=8

P.T.O.

4. a) Is it possible to use a floating-point dimension in an array? Is it possible to store multiple elements of different types in an array? Justify.
   b) Explain bitwise AND and XOR operators with suitable example.
   c) Write a recursive function to find factorial of a number. (1+1)+3+3=8
5. a) What is the purpose of *typedef* keyword in structure declaration? Define a structure to specify information related to students given below: *roll number, name, department, course, year of admission.* Assume that there are not more than 500 students in the college.
      i) Write a function to print names of all students who are admitted in a particular year.
      ii) Write a function to print all the information of a student whose roll number is given.
   b) What is the difference between a text file and a binary file? (1+1+2+2)+2=8
6. a) What is the difference between class in C++ and structure in C?
   b) What is an inline function? How does it differ from friend function?
   c) Write a programme to copy one file to another. While doing so replace all lowercase characters to their uppercase characters. 2+2+4=8
7. Write short notes on **any two** of the following : 2×4=8
   a) C preprocessor
   b) Command line arguments
   c) Dynamic memory allocation
   d) Object-Oriented-Programming features

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