subject:- C-programming  
 code:- 12027  
 marks:- 100  
  
1. Attempt any TEN of the following:[mark 20]  
  
a) Enlist any two features of C language.  
b) Write syntax of switch case statement.  
c) Explain use of strcat ( ) function with syntax.  
d) Write and explain syntax of structure.  
e) Write a C program to check whether entered number is  
odd or even.  
f) Why do we need to use comments in program.  
g) Write and explain general form of scanf function.  
h) State different types of C tokens.  
i) Explain the effect of the following statements  
int a, \* b = & a  
j) What is local variable?  
k) Define following terms :  
(i) identifier  
(ii) data type  
l) What is the use of size of ( ) . operator?  
m) Write name of header file use for string handling function.  
n) Write any two advantages of pointers.  
  
2. Attempt any FOUR of the following: [marks 16]  
  
a) What are different storage classes and explain any one in  
detail.  
b) Explain following category of functions :  
(i) Function with no argument and no return values  
(ii) Function with argument and one return value.  
c) Write a program to generate a Fibonacci series of first  
10 nos. (Use FOR loop)  
d) Explain the concept of pointer arithmatic operations with  
example.  
e) Write a program using recursion to calculate factorial of  
a given number.  
f) Explain use of following functions with syntax.  
(i) Strcmp ( )  
  
  
3. Attempt any FOUR of the following: [marks 16]  
  
a) Write and explain syntax of FOR loop with example.  
b) List and explain any four bitwise operators.  
c) With suitable example explain else - if ladder.  
d) Explain how to initialized two dimensional array with  
suitable example.  
e) Write a program to read a four digit number and reverse it.  
(Use function reverse ( ) )  
f) For the following program fragment derive the output  
generated by printf statement :  
  
main ( )  
{  
int a, b, x, y  
a = 20  
b = 15  
x = ++a – b  
printf ("a = %d b = %d x = %d \n", a, b, x)  
y = b – – + a  
printf ("a = %d b = %d y = %d \n", a, b, y)  
printf (" % d\n, (x>Y)? 1:0)  
printf (" % d\n, (x  
}  
  
  
4. Attempt any tow of the following: [marks 16]  
a) Write a program to check a given number is prime or not.  
b) Write a program to copy one string into another and count  
the number of characters copied using character string.  
c) Write a program to declare the structure student having  
member variable roll\_no, name and branch. Accept data for  
one student and display it.  
  
5. Attempt any TWO of the following: [marks 16]  
a) Write a program using function to sort an array of n integer  
numbers.  
  
b) With suitable example explain call by value and call by  
reference.  
  
c) Write a program using pointers to compute the sum of all  
elements stored in an array.  
  
  
  
6. Attempt any TWO of the following: [marks 16]  
  
a) What do you mean by operators in C? List and explain  
various types of operators supported in C?  
  
b) Write a program to check whether number is an Armstrong  
number or not (An Armstrong number of three digits is an  
integer such that the sum of the cubes of its digits is equal  
to the number itself. For e.g., 371 is an Armstrong number  
since 33+73+13=371)  
  
c) Write a menu based program using switch-case for the  
following menu.  
(i) To find entered number is positive, negative or zero.