BCA 2nd SEMESTER EXAM., 2015 PROBLEM SOLVING TECHNIQUE & PROGRAMMING IN C CODE- 303204

Time: 3 hours Full Marks: 60

Instructions:

- i. The Marks are indicated in the right -hand margin.
- ii. There are **SEVEN** questions in this paper.
- iii. Attempts *FIVE* question in all.

iv.	Question Nos. $\boldsymbol{1}$ and $\boldsymbol{2}$ are compulsory.	
	Grou	p - A
1.	Answer any six of the following :	2*6=12
	(a) Which of the following special symbo	ls allowed in a variable name
	(I) * (asterisk)	(II) (pipeline)
	(III) - (hyphen)	(IV) _ (underscore)
	(b) Is there any difference between follow	wing declarations?
	(1) extern int fun();	(2) int fun();
	(I) Both are identical	
	(II) No difference, except extern in	nt fun(); is probably in another file
	(III) int fun(); is overrided with ex	ktern int fun() ;
	(IV) None of the above	
	(c) When we mentation the prototype of	a function?
	(I) Defining	(II) Declaring
	(III)Prototyping	(IV) Calling
	(d) In mathematics and computer progra	mming, which is the correct order of
	mathematical operators?	
	(I) Addition, subtraction, multipl	ication, division
	(II) Division, multiplication, addit	ion, subtraction
	(III) Multiplication, addition, divis	ion, subtraction
	(IV) Addition, division, modulus, s	ubtraction

(e) Which of the following cannot be checked in a swit	ch-case statement?		
(I) Character	(II) Integer		
(III) FLoat	(IV) Enum		
(f) Which of the following is the correct usage of cond	ditional operators used in C?		
(I) a>b ? c=30 : c=40;	(II) a>b ? c=30;		
(III) max=a>b ? a>c ? a:c:b>c ? b:c	(IV) return (a>b) ? (a:b)		
(g) Which of the following are unary operators is C?			
1 . !			
2. Sizeof			
<i>3.</i> ~			
4. &&			
(I) 1, 2	(II) 1, 3		
(III) 2, 4	(IV) 1, 2, 3		
(h) Input/output function prototypes and macros are	defined in which header file?		
(I) conio.h	(II) stdlib.h		
(III) stdio.h	(IV) dos.h		
(i) What is stderr?			
(I) Standard error	(II) Standard error types		
(III) Standard error streams	(IV) Standard error definitions		
(j) What is the purpose of fflush() function?			
(I) Flushes all streams and specified streams			
(II) Flushes only specified streams	(II) Flushes only specified streams		
(III)Flushes input/output buffer			
(IV) Flushes file buffer			

Group - B

2. Answer any three of the following:

4*3=12

- (a) What do you mean by function? How we can use the user defined functions?
- (b) What is a storage class? Discuss the various storage classes.

- (c) What is an array? What is 2-dimensional array? How 2-dimensional arrays are initialized? Also explain how array elements are accessed in a 2-dimensional array? give explanation with example.
- (d) What do you mean by the user defined data types? Give some differences between structure and union.
- (e) Write the difference between functions and macros.

Group - C

Answer any three of the following:

12*3=36

- $\bf 3.$ How we open and close an existing file in C? Also discuss the various modes to open a file.
- **4.** Write a program to check whether the number is prime or Armstrong with the help of user defined functions.
- **5.** Give the advantage of array using pointers. Write a program to access element of an array by using pointers.
- **6.** What is an operator? What are different types of operators? Discuss the various operators available in C
- **7.** What do you mean by a recursion? Write a program to print a Fibonacci series using recursion up to 1000 numbers.

