

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

**PAPER ID : 1102**

Roll  
No.

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**BCA Examination 2014-2015**

**(First Semester)**

**PROGRAMMING CONCEPT USING 'C'**

*Time : 3 Hours*

*[Maximum Marks : 100*

**Note :** Attempt all questions.

**SECTION - A**

20

1. (a) Fill in the blanks :
  - (i) A variable can be made constant by declaring it with qualifies ..... at the time of initialization.
  - (ii) ..... file contains mathematical functions.
  - (iii) The ..... command is used to display all the files and directories of a drive.
  - (iv) Header file include ..... functions.
  - (v) A loop that always satisfies the test condition is known as ..... loop.

- (vi) A ..... is a function that invokes itself.
- (vii) The variable declared in a structure definition are called is .....
- (viii) File is a ..... of data or set of character may be text or program.
- (ix) The fopen ( ) function is used to ..... a file.

(b) State true or false : 1×10=10

- (i) Any statement written in between `/*` and `*/` is treated as comments in C program.
- (ii) The case labelled constant can be a constant or a variable.
- (iii) C does not permit nested switch statements.
- (iv) Auto variables are stored inside CPU registers.
- (v) In a switch case statement, labels must be declared in ascending order.
- (vi) An array stores all its data elements in non

- (vii) Assignment operator can be used to copy the contents of one string into another.
- (viii) A function pointer cannot be passed as a function's calling argument.
- (ix) A union can be a member of a structure.
- (x) Binary files are slower than text files.

**SECTION - B**

30

2. Attempt any three of the following :

- (a) What are the attributes of good programming language? Also define the factors that influence the evaluation of programming language.
- (b) Write a C program to enter a 5 digit number through keyboard and calculate the sum of its digits.
- (c) What will be the output of the following program?  
Justify your answer :

(i) #include <Stdio.h>

main ( )

{

int option = 2, i,

Switch (Option)

```
{
```

```
default : printf ("Please check your option");
```

```
Case 1 : Printf ("\n sum");
```

```
break;
```

```
Case 2 : Printf ("\n subtract");
```

```
break;
```

```
Case i : Printf ("\n multiply");
```

```
break;
```

```
}
```

```
}
```

(ii)

```
main ()
```

```
{
```

```
Int arr [] = {1, 2, 3, 4, 5};
```

```
Int i, * Pass = arr;
```

```
for (1=0; i<5; i++)
```

```
{
```

```
Printf("%d", *arr);
```

```
++parr;
```

```
}
```

```
}
```

- (d) What are strings? Write a program to concatenate two strings.
- (e) What is dynamic memory allocation? Explain malloc function with a suitable example.

### SECTION - C

50

3. Attempt any one of the following : 10

- (a) What are the attributes of good programming? Discuss the top down and bottom up approach of programming with example.

**OR**

- (b) Write a program to print following pattern :

```

      1
     1 2 1
    1 2 3 2 1
   1 2 3 4 3 2 1
  1 2 3 4 5 4 3 2 1

```

4. Attempt any one of the following : 10

(a) Write a program to find the transpose of matrix.

**OR**

(b) Differentiate between :

(i) While and dowhile

(ii) While and for

(iii) Break and continue

(iv) Getc ( ) and putc ( )

(v) F close ( ) and F error ( )

5. Attempt any one of the following : 10

(a) What is pointer? How pointers are declared in C programming language? Illustrate with a suitable example.

**OR**

(b) Write a function definition of xstrcpy ( ) in C copies the contents of one string into the other.

6. Attempt any one of the following : 10

(a) What is difference between structure and union? What are the advantages of using unions?

**OR**

- (b) What is selection sorting? Sort the number "5 1 4 2 8" from lowest to greatest using selection sort.
7. Attempt any one of the following : 10
- (a) What is the role of Fprintf and Fscanf ( ) in the file handling? Explain with example.

**OR**

- (b) Write a program in C which copies the contents of one file into another file.

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