

Roll No.

Total No. of Questions : 9]
(2111)

[Total No. of Printed Pages : 7

**BCA (CBCS) RUSA Ist Semester
Examination**

4511

C-PROGRAMMING

BCA-0104

Time : 3 Hours]

[Maximum Marks : 70

Note :- Attempt *five* questions in all, selecting *one* each from Unit-I to Unit-IV. Part-A (Q. No. 1) is compulsory.

Part-A

(Compulsory Question)

1. (A) Multiple Choice Questions :

- (i) Compiler generates files.
- (a) Executable code
 - (b) Object code
 - (c) Assembly code
 - (d) None of these

(ii) What function can be used to free the memory allocated by calloc() ?

- (a) Dealloc
- (b) Streat
- (c) Free
- (d) Memory

(iii) What will be the output of the following C code ?

1. # include <stdio.h>
 2. void main()
 3. {
 4. char a='a'
 5. int x=(a%10)++.
 6. printf ("%d, \n", x);
 7. }
- (a) 6
 - (b) Junk value
 - (c) Compile time error
 - (d) 7

(iv) What will be the output of the following C code ?

```
1. # include <stdio.h>
2. int main()
3. {
4.     int i=0
5.     int j=i++ +i;
6.     printf ("%d, %n", f);
```

(a) 0

(b) 1

(c) 2

↙ (d) Compile time error

(v) What is the maximum number of dimensions an array in C may have ?

(a) Two

(b) Eight

(c) Twenty

↙ (d) Theoretically no limit

The only practical limits are memory size
and compilers.

(vi) Which are of the following is not a reserved keyword for C ?

- (a) auto
- (b) case
- (c) main
- (d) default

(vii) A C variable cannot start with :

- (a) A number
- (b) A special symbol other than underscore
- ~~(c)~~ Both of these
- (d) An alphabet

(viii) What does the following declaration mean ?

int (*ptr) [10];

- (a) ptr is array of pointers to 10 integers
- ~~(b)~~ ptr is a pointer to an array of 10 integers
- (c) ptr is an array of 10 integers
- (d) ptr is a pointer to array

(B) Answer the following in 25 to 50 words :

- (i) Why C is called as structured language ?
 - (ii) What are different symbols of flow chart ?
 - (iii) Differentiate between constant and variable.
 - (iv) Explain what is operand ? What is its relationship with operands ?
 - (v) Is it possible to declare and initialize an array in C simultaneously ? If yes, how ?

$$4 \times 5 = 20$$

Part-B

(Unit-I)

10 each

2. Write an algorithm and draw flow chart to find and print Fibonacci sequence.

Or

3. Define data type. Explain various data types used in C in detail by taking examples.

(Unit-II)

10 each

4. Define an Operator. Explain, what are its different types ?

Or

5. What are formatted and unformatted input/output functions used in C. Explain in detail by taking examples.

(Unit-III)

10 each

6. Write a menu driven program with the following options :

- (i) Biggest of three numbers
- (ii) Positive or negative number
- (iii) Factorial of a number
- (iv) Exit

Or

7. What are Control Statement ? Explain different types of control statements.

(Unit-IV)

10 each

8. What is the need for functions ? What are different ways of passing arguments to a function ?

Or

9. What are the advantages of using pointers ? What are the various operations permitted on pointers ?