

Roll No.

BCA–C-102

B. C. A. (First Semester)

EXAMINATION, 2022-23

PROGRAMMING IN 'C'

Time : $2\frac{1}{2}$ Hours

Maximum Marks : 60

Note : All questions have to be attempted.

Section—A

1. Multiple choice questions : 1 each

(a) If the mode includes b after the initial letter, what does it indicates ? (CO5, BL-1)

(i) text file

(ii) big text file

(iii) binary file

(iv) blueprint text

P. T. O.

- (b) EOF is an integer type defined in stdio.h and has a value _____. (CO5, BL-2)

- (i) 1
- (ii) 0
- (iii) NULL
- (iv) -1

- (c) What will be the value of y if $x = 8$? (CO1, BL-1)

$y = (x > 6 ? 4 : 6);$

- (i) Compilation Error
 - (iii) 0
 - (ii) 4
 - (iv) 6
- (d) If you have to make decision based on multiple choices, which of the following is best suited ? (BL-1)

- (i) if
 - (ii) if-else
 - (iii) if-else-if
 - (iv) All of the above
- (e) The continue statement cannot be used with _____. (CO1, BL-1)

- (i) for
- (ii) while
- (iii) do while
- (iv) switch

(f) The C-preprocessors are specified with _____ symbol. (CO2, BL-2)

(i) #

(ii) \$

(iii) " "

(iv) &

(g) Which of the following is not possible under any scenario ? (CO4, BL-2)

(i) s1 = &s2;

(ii) s1 = s2

(iii) (*s1) . number 10

(iv) None of the mentioned

(h) How many number of pointer (*) does C have against a pointer variable declaration ?

(CO5, BL-2)

(i) 7

(ii) 127

(iii) 255

(iv) No limits

(i) What is (void*) 0 ? (CO5, BL-1)

(i) Representation of NULL pointer

(ii) Representation of void pointer

(iii) Error

(iv) None of the above

- (j) Local variables are stored in an area called _____.
(CO5, BL-1)
- (i) Heap
 - (ii) Permanent storage area
 - (iii) Free memory
 - (iv) Stack
- (k) In which header file is the NULL macro defined ?
(CO4, BL-1)
- (i) stdio.h
 - (ii) stddef.h
 - (iii) stdio.h and stddef.h
 - (iv) math.h
- (l) The keyword used to transfer control from a function back to the calling function is :
(CO3, BL-1)
- (i) switch
 - (ii) goto
 - (iii) go back
 - (iv) return

Section—B

2. Attempt any *four* of the following : 3 each
- (a) Explain the concept of switch statement with use of flow chart.
(CO2, BL-2)
 - (b) Define assembler, compiler and interpreter.
(CO1, BL-1)

- (c) Write a program to implement fibnnoci series.
(CO3, BL-6)
- (d) Elaborate the advantage of union over structure.
(CO4, BL-4)
- (e) Write a program in C to implement read and write operation in file.
(CO5, BL-6)
3. Attempt any *two* of the following : 6 each
- (a) Write a program in C to swap two number using call by value and call by reference and show the steps.
(CO3, BL-6)
- (b) Define calloc, malloc and realloc with suitable example. Also explain its scope and significance.
(CO5, BL-2)
- (c) Draw a flow chart to find greatest number among three numbers.
(CO1, BL-6)
4. Attempt any *two* of the following :
- (a) Define recursive function. Where do we use recursive function ? Explain recursion with example.
(CO3, BL-2)
- (b) Explain the advantage of two-dimensional array over one-dimensional array with suitable example.
(CO2, BL-4)

- (c) Analyze the use of different storage classes in C with suitable program. (CO3, BL-4)

5. Attempt any *two* of the following : 6 each

- (a) Define array of pointer. Elaborate array of pointer with the help of C program. (CO4, BL-2)
- (b) Write a program in C to implement palindrome using function. (CO3, BL-6)
- (c) Explain the types of logical operator used in C with their notation. (CO1, BL-4)