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PUBV(S-I) — BCA
(CC - 2)

2023

Time : 3 hours

Full Marks : 50

Pass Marks : 23

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from all the Sections as directed.

Section – A
(Compulsory)

1. Choose the correct answer from given options :
1×5 = 5

(a) Which is valid C expression ?

(i) `int my_num = 100,000 ;`

(ii) `int my_num = 100,000 ;`

☒ (iii) `int my num = 1000 ;`

(iv) `int $my_num = 10000 ;`

(b) What is the result of logical or relational expression in C ?

☒ (i) True or False

XE – 11/2

8 22 11
! } (Turn over)

change value
True is false

- (ii) 0 or 1
- (iii) 0 if an expression is false and any positive number if an expression is true
- (iv) None of these

(c) What is meant by 'a' in the following C operation ?

`fp = fopen ("Random.txt", "a") ;`

- (i) Add
- (ii) Attach
- ~~(iii) Append~~
- (iv) Apprehend

(d) Which is correct with respect to the size of the data types ?

- (i) $\text{char} > \text{int} > \text{float}$
- (ii) $\text{int} > \text{char} > \text{float}$
- ~~(iii) $\text{char} < \text{int} < \text{double}$~~
- (iv) $\text{double} > \text{char} > \text{int}$

$\text{int} \rightarrow 2$
 $\text{long int} \rightarrow 4$
 $\text{float} \rightarrow 2-4$
 $\text{double} \rightarrow 8$
 $\text{char} \rightarrow 1$

(e) Which keyword can be used for coming out of recursion ?

- ~~(i) Break~~
- ~~(ii) Return~~
- ~~(iii) Exit~~
- (iv) Both break and return

2. State True or False : 1×5 = 5

- (a) Character constants are coded using single quotes. **T**
- (b) All static variable are automatically initialized to zero. **T**
- (c) The scanf function reads until a whitespace character is found in the entered string. **T**
- (d) The format specification for outputting string is of the form %w.ps. **F**
- (e) The parameters used in function calls are called actual arguments. **T**

Section – B

3. Answer any **four** questions of the following :

3×4 = 12

- (a) Describe the four basic data types in C.
- (b) Distinguish between Automatic and Static variables.
- (c) How does a structure differ from union ?
- ~~(d)~~ Write a C program to reverse the given number.
- (e) What are the different types of logical operator in C language ?

XE – 11/2

(3)

(Turn over)

- (f) What are various modes to open a file. Give examples.

Section – C

4. Answer any four questions of the following :

$$7 \times 4 = 28$$

- (a) What are different types of loops in C language ? Explain with examples.
- (b) Write a C program to search the given number stored in an array containing ten elements, using binary search method.
- (c) Write a C program to find the length of the given string, using user defined function.
- (d) Explain the function of bitwise left shift and right shift operators with examples.
- (e) What is Pointer ? Distinguish between an array and pointer.
- (f) Write a C program to find factorial of the given number.

_____ ❖ _____
*Read while !
while (i < 10)*

XE – 11/2 (500)

(4)

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