



## BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Tech.(CSE)-2024/B.Tech.(CSE)-AIR-2024/B.Tech.(ME)-2024

Course Name – Programming for Problem Solving

Course Code - BES00006

( Semester I )

Library  
Brainware University  
398, Ramkrishnapur Road, Barasat  
Kolkata, West Bengal-700125

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Select the correct way to assign char value is (say char x;)
  - a) x=\\"c\\"
  - b) x='c'
  - c) x= c
  - d) one of these
- (ii) Select the size of data type int in byte/s (16 bit compiler)
  - a) 1
  - b) 2
  - c) 3
  - d) 4
- (iii) Select the correct declaration of a pointer.
  - a) int \*var1;
  - b) char \* var1;
  - c) int var1\*;
  - d) int &var1;
- (iv) Select the correct option: a pointer value refers to
  - a) A float value
  - b) An integer constant
  - c) Any valid address in memory
  - d) None
- (v) Select the keyword that is used to prevent any changes in the variable within a C program
  - a) immutable
  - b) mutable
  - c) const
  - d) volatile
- (vi) Select the correct declaration an array of pointers in C.
  - a) dataType \*arrayName[size];
  - b) dataType arrayName\*[size];
  - c) dataType[size] \*arrayName;
  - d) \*dataType arrayName[size];
- (vii) Select the way, the Elements of an array are stored in
  - a) contiguous manner
  - b) non-contiguous manner
  - c) random manner
  - d) All of these
- (viii) Choose the way, the String in C is declared within
  - a) ''
  - b) " "
  - c) [ ]
  - d) < >

(ix) Choose the function that is used to read a character  
 a) puts()  
 c) getchar()  
 b) gets()  
 d) putchar()

(x) Choose the option. FILE is of type \_\_\_\_\_.  
 a) Structure  
 c) Variable  
 b) Array  
 d) Data type

(xi) Select among the following where 'r' mode in file used for  
 a) reading only  
 c) writing only  
 b) both reading and writing  
 d) editing

(xii) Select the correct option, if there is any error while opening a file, fopen() will return-  
 a) void  
 c) NULL  
 b) EOF  
 d) 0

(xiii) Select correct answer for create infinite loop-  
 a) for (i = 0; i < 10; i++)  
 c) for (i = 0; i != 0; i++)  
 b) for (i = 0; ; i++)  
 d) for ( ; ; )

(xiv) Identify from the following that is NOT a characteristic of a recursive algorithm  
 a) Base case  
 c) Infinite loops  
 b) Recursive case  
 d) Function calls itself

(xv) Select the keyword that is used to return a value from a function  
 a) return  
 c) end  
 b) exit  
 d) void

**Group-B**  
 (Short Answer Type Questions)

3 x 5=15

2. Explain, way that you can pass an array to a function in C. (3)  
 3. Distinguish between entry control loop and Exit control loop. (3)  
 4. Explain relational operator with example (3)  
 5. Define NULL pointer and it's use in C. (3)  
 6. Compare between write mode and append mode in File Handling in C. (3)

**OR**

Explain r, w, append mode of file in C programming. (3)

**Group-C**  
 (Long Answer Type Questions)

5 x 6=30

7. Develop a C program to copy one string to another using character arrays. (5)  
 8. Compute the following expression and find value of x. a=5, b=6, c=7, x=a++ + ++b - -c (5)  
 9. Define algorithm and the steps of the algorithm (5)  
 10. Illustrate the concept of pointer to a pointer in C programming with proper example. (5)  
 11. Write a program to pass Structure Variable as Argument. (5)  
 12. Deduce a program to 'write' data to a file in C. (5)

**OR**

Deduce a program to read data from a file in C. (5)

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