Pinnacle
DEGREE & DIPLOMA
ENGINEERING

CP (C Programming)

Question Bank: Expected C Programs

FE -SEM - II

Mumbai University

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Structure

Sr.No.	Question
1.	Write a program to design a structure Employee with members Employee No, Employee Name, Experience and salary. Read the information of 100 employees and display employee information that is having 5 years or more experience and salary less than Rs. 10,000.
2.	W.A.P to store & display name, roll no & fees of 100 students using structure.
3.	W.A.P to store information of 10 students using structure. Information include roll number, name, marks of a student.
4.	Write a program to read Title, Author and Price of 5 Books using array of structures. Display the records in ascending order of Price.
5.	Define a structure Cricket which consist of following members: Player Name, Country Name, Batting Average. Input 20 players information. W.A.P which will display detailed information of players.
6.	W.A.P to create an employee structure which has details like name, age and salary. Accept the details of 100 employees and display details of employees in ascending order w.r.t age OR w.r.t id OR w.r.t name
7.	Define Structure within structure (nested structure) for an employee. Employee Details: name, age, salary, date of joining W.A.P to read at least 10 records and display details of employees joined after 2019.

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Array (1D & 2D)

Sr.No.	Question
1.	W.A.P to sort array elements of 1D in ascending order – 1D
2.	W.A.P to find transpose of a square matrix using only one matrix – 2D
3.	W.A.P to find largest of n numbers taken from the user – 1D
4.	W.A.P to accept elements of square matrix & to find sum of elements present on, above & below principal diagonal elements. – 2D
5.	Write a program to accept elements of two-dimensional square matrix and check whether matrix is symmetric or not. – 2D
6.	W.A.P to accept n integers from user into an array and display the sum and average of these numbers. – 1D
7.	W.A.P to find sum of diagonal elements. – 2D
8.	W.A.P to search a number within the array. – 1D
9.	W.A.P to perform Matrix Addition. – 2D
10.	W.C.P to accept 'n' integers from user into an Array and display the count of even & odd numbers. – 1D
11.	W.A.P to multiply 2 matrices after checking compatibility. – 2D

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String

Sr.No.	Question
1.	W.A.P to validate whether accepted string is palindrome or not without using string.h or with using string.h
2.	W.A.P to find given string is palindrome or not using user defined function.
3.	W.A.P to find the length of a given string without using string library function.
4.	W.A.P to accept a string & find the number of vowels without using string header file.
5.	W.A.P to copy one string into another without using string library function.
6.	W.A.P to concatenate(join) 2 strings without using string library function.
7.	W.A.P to count blank spaces, digits, vowels and consonants in the given sentence.

Function & Recursion

Sr.No.	Question
1.	W.A.P to check given number is prime number or not using function.
2.	W.A.P to add two numbers using user defined function.
3.	W.A.P to find factorial of given number using function.
4.	W.A.P to reverse a given number using function – reverse of given 3 digits number.
5.	Define Recursion. W.A.P which will accept 2 numbers from user say x & y and calculate x^y i.e. power of a given number using recursion.
6.	What is Recursion? W.A.P to find GCD of two numbers using recursive function.
7.	Write a recursive program to calculate factorial of accepted number.
8.	W.A.P to calculate sum of digits of a given n digit number using recursion.
9.	W.A.P using function to print first ‘n’ numbers in fibonacci series using function.
10.	W.A.P to compute fibonacci series upto n terms using recursion.
11.	W.A.P to reverse a number using recursion.

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Decision & Loop Control Based Programs

Sr.No.	Question
1.	Write a program to accept three numbers and to find largest of three numbers using nested if-else.
2.	W.A.P to check given number is prime number or not.
3.	W.A.P to display all prime numbers from 1 to 50.
4.	W.A.P to display all prime numbers from 100 to 500.
5.	W.A.P to find factorial of given number.
6.	Write a program to accept a number and to check whether it is Armstrong number or not.
7.	W.A.P to implement Arithmetic Calculator with following operations : 1) Add two numbers 2) Divide two numbers 3) Subtract two numbers 4) Multiply two numbers
8.	W.A.P to check if the given number is a Palindrome number or not
9.	W.A.P to find GCD & LCM of 2 numbers.
10.	Write a program to find square root of a accepted perfect square integer number without using standard sqrt( ) function.
11.	***Left Aligned Pattern Programs:*** **1)** * ** *** **** **2)** 1 1 2 1 2 3 1 2 3 4 **3)** 1 2 2 3 3 3 4 4 4 4 4) 1 2 4 3 6 9 4 8 12 16

5)
1
2 3
4 5 6
7 8 9 10

6)
1
2 1
3 2 1
4 3 2 1

7)
A
A B
A B C
A B C D

8)
A
B B
C C C
D D D D

9)
A
B C
D E F
G H I J

10)
E
ED
EDC
EDCB
EDCBA

11)
1
1 0
1 0 1
1 0 1 0

12)
1
01
101
0101

Left-Aligned (Inverted) :

1)
*****
***
**
*

2)
55555
4444
333
22
1

3)
EDCBA
EDCB
EDC
ED
E

4)
1234
123
12
1

Right Aligned:

1)
```
   *
  **
 ***
****
```

2)
```
    5
   54
  543
 5432
54321
```

3)
```
   1
  21
 321
4321
```

4)
```
  0
 01
010
0101
01010
```

Right-Aligned Inverted :

1)
```
****
 ***
  **
   *
```

2)
```
ABCD
 ABC
  AB
   A
```
