**C Assignment Problem Statements**

**Assignment No-1:**

**1. First C program (Print HELLO WORLD)**

**2. Declare two variables and assign values to them and calculate and print addition, subtraction, multiplication, division and modulus.**

**3. Accept length and width of rectangle from user and calculate area and perimeter of a rectangle.**

**4. Accept radius of circle from user and calculate area and circumference of a circle.**

**5. Accept values for a and b and calculate the equation (a + b)\*2.**

**6. Accept two numbers from user and swap their values. (Do the same program without third variable).**

**7. Accept a three digit number and print its sum of digits. (e.g. 123 output is: 6)**

**8. Accept a three digit number and reverse the number. (e.g. 123 output is: 321)**

**9. Accept a number and check whether it is even or odd number.**

**10. Accept a year whether it is leap year or not a leap year.**

**11. Accept number of shirts and price of shirts from user, calculate the bill and print it. If the bill is greater than rupees 5000/-, give 10% discount to the customer and print the final bill.13. Find minimum number between three numbers using logical operators.**

**Assignment No-2:**

**14. Accept marks of 3 subjects, calculate the percentage and print it. If percentage is greater than equal to 60 print 'A Grade', if the percentage is greater than equal to 50 print 'B Grade', if the percentage is greater than equal to 40 print 'C Grade' else print 'Fail'. [Do the program using else if].**

**15. Accept a single alphabet from user and check whether it is a vowel or consonant character.**

**16. Accept age and gender of a person from user. If the age is greater than equal to 18 and the gender is female or age is greater than equal to 21 and gender is male then print message "The person is eligible for marriage" else print the message "The person is not eligible for marriage”.**

**17. Accept month from user (1 for Jan to 12 for December) and print number of days within the month. [Consider 28 days for February. Use conditional operators].**

**Assignment No-3:**

**18. Write a program to print Hello World 10 times.**

**19. Write a program to print numbers between 1 to 10.**

**20. Write a program to print sum of first 10 numbers.**

**21. Write a program to print sum of even numbers and odd numbers between a given ranges.**

**22. Accept a number from user and print its factors. E.g. factors of 6 are: 1 2 3**

**23. Accept a number from user and print its factorial. e.g. 5! = 120**

**24. Accept base and index from user and print its power. e.g. 2^3 = 8**

**Assignment No-4:**

**25. Accept a number from user and print its sum of digits.** E**.g. if num is 123 the answer is 6.26. Accept a number from user and reverse the number. E.g. if num is 123 the reverse number is 321.**

**27. Print the ASCII (American Standard Code for Information Interchange) chart.**

**0 =?**

**1 =?**

**. = ?**

**.. = ?**

**255 =?**

**28. Print ASCII values of characters from A to Z.**

**29. Accept a number from user and check whether it is a perfect number or not. (Perfect number is a number whose sum of factors is equal to the original number then the number is called as a perfect number. e.g. 6 is a perfect number because its factors are 1, 2 and 3. If you add the factors then the sum comes equal to the original number i.e. 6)**

**30. Accept a number from user and check whether it is a prime number or not. (A prime number is a number which is only divisible by 1 and itself)**

**31. Accept a number from user and check whether it is a strong number or not. (A strong number is a number whose sum of individual digit's factorial is equal to the original number. e.g. 145 is a strong number because its individual digit's factorial’s sum is equal to 145).**

**Assignment No-5:**

**32. Print following Pattern**

**#**

**##**

**###**

**####**

**33. Print the following pattern**

**####**

**###**

**##**

**#**

**34. Print the following pattern**

**#**

**##**

**###**

**####**

**35. Print the following pattern**

**####**

**###**

**##**

**#**

**36. Print the following pattern**

**1**

**2 3**

**4 5 6**

**7 8 9 10**

**37. Print the following pattern**

**A**

**A B**

**A B C**

**A B C D**

**38. Print the following pattern**

**?**

**? !**

**? ! ?**

**? ! ? !**

**39. Print the following pattern**

**#**

**# # #**

**# # # # #**

**# # # # # # #**

**40. Accept a number from user and calculate the factorial of a given number till user wants to run the program.**

**41. Accept base and index from user and calculate value of power till user wants to run the program.**

**42. Accept a number from user and check whether it is an Armstrong number or not. (e.g. 153 is an Armstrong number. If sum of individual digit's cube is equal to the original number then the number is called as Armstrong number)**

**43. Write a program to print series of prime numbers between 2 to 100.**

**44. Write a program to print series of Armstrong numbers between 1 and 1000.**

**45. Write a program to accept day as an integer (1 to 7) and print the name of the day (MONDAY TO SUNDAY). e. g. if user enters value of day as 1 then MONDAY should be printed.**

**46. Accept an alphabet from user and print whether it is vowel or consonant character.**

**47. Write a program to display following menu**

**1 = Addition of two numbers**

**2 = Sum of digits of a three digit number**

**3 = Reversing a three digit number**

**4 = Exit**

**Accept the choice from user and execute the particular program.**

**48. Accept year and month (1 = Jan to 12 = Dec) from user. And print number of days in the month.**

**49. Print a following menu**

**D = Deposit**

**W = Withdraw**

**S = Show Balance**

**E = Exit Program**

**Write a program to deposit / withdraw / show balance of an account.**

**Assignment No-6:**

**52. Write a function to accept two numbers from user and calculate addition.**

**53. Accept a number from user and calculate the factorial using function.**

**54. Accept base and index from user and calculate the power using function.**

**55. Accept two numbers inside main, pass them to a function and calculate the sum of two numbers.**

**56. Accept a number from user in main, pass it to a function and calculate the factorial.**

**57. Accept base and index from user in main, pass it to a function and calculate the power.**

**58. Write a function to accept two numbers from user and make addition of them and return addition back to main and print the answer in main.**

**59. Write a program to accept a number from user, pass it to a function calculate the factorial and return it back to main.**

**60. Write a program to accept base and index from user, pass them to function calculate the power and return it back to main.**

**61. Accept a number from user; pass it to a function and print whether it is a prime number or not in main.**

**62. Accept a number from user; pass it to function and print whether it is a strong number or not in main. (A strong number is a number whose individual digit's factorial's sum is same as the original number).**

**63. Write a function to accept two numbers from user and make addition, subtraction, multiplication and division of them and return answers back to main and print the answers inside main.**

**Assignment No-7:**

**69. Declare an array of size 50; ask user how many numbers he/she wants to enter in the array. Accept the array and print it.**

**70. Accept an array from user and calculate and print the sum of array elements.**

**71. Accept an array from user and print the maximum number in an array.**

**72. Accept an array and a single number from user and print whether that number is present in the array or not and its number of occurrences.**

**73. Declare two arrays, accept the content for first array and copy the contents of first array to second array and print the second array. [Array Copy]**