



INSPIRED BY LIFE

**Bachelor of Science in Information Technology (BScIT) – Semester 1/
Diploma in Information Technology (DIT) – Semester 1
BT0065 – C Programming and Data Structures – 3 Credits
(Book ID: B0949)
Assignment Set – 1 (60 Marks)**

Answer all questions

10 x 6 = 60

1. What do you mean by data types? Explain.
2. Write an algorithm to print all even numbers in descending order and draw the flowchart.
3. Write a C program to add all numbers between 100 and 200 that contain the digit 5.
4. Write a program that accepts 15 different numbers and find the LCM and HCM.
5. Distinguish library functions and user defined functions.
6. Write a C program to copy two strings using pointers.
7. Write a program to accept name and store the name in its short form (e.g. Sikkim Manipal University should be stored as SMU).
8. What is a Data Structure? Explain.
9. Write a program to implement stack with POP and PUSH operations.
10. Write a C program to implement dequeue.

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Assignment Set – 2 (60 Marks)**

Answer all questions

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1. What is the difference between pre increment and post increment operator?
2. Write an algorithm to print the factorial of a given number and then draw the flowchart.
3. Why should we avoid 'goto' statement?
4. Write a program to sort the elements of an array in the ascending order.
5. Write a user defined function which is equivalent of strlen().
6. Write a program to illustrate the usage of pointers with arrays and functions.
7. Write a program that reads numbers from a file and find the largest and smallest among them.
8. What do you mean by Abstract Data Type?
9. Write a program to implement the stack operations using arrays.
10. Explain the operations that can be performed on linked list.

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