Theory Assignment 01

Marks

Question no 1

Convert the following Adjacency Matrix into an Adjacency List and draw the graph. **20**
(no need to code)

	0	1	2	3	4	5	6
0	0	0	0	0	0	0	0
1	0	0	1	1	0	0	0
2	0	1	0	0	1	0	0
3	0	1	0	0	1	0	0
4	0	0	1	1	0	1	1
5	0	0	0	0	1	0	0
6	0	0	0	0	1	0	0

Question no 2

You are given two positive integers n and m . Now calculate the value of n to the power m using recursion.Write a C++ program for it. **20**

Sample Input	**Sample Output**
2 4	16

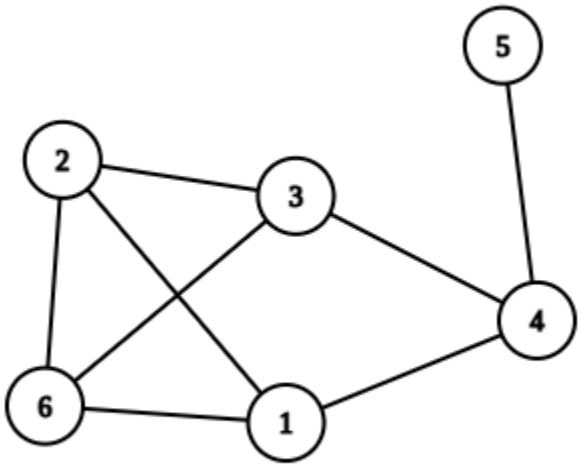
Question no 3

What is the difference between BFS and DFS algorithms? (At least Five) **20**

Question no 4

What is BFS and how does it work? What is DFS and how does it work? (With Figure) **20**

Question no 5



Perform BFS and DFS Traversal on the following graph and write the traversal output. Choose node 2 as the source. You must write all steps you perform for doing BFS and DFS Traversal on the following graph. **20**