MATHEMATICAL STRUCTURES
COURSE CODE: 21MAT41A
MODULE – 5: Graph Theory & Its Applications
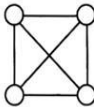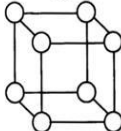### MULTIPLE CHOICE QUESTIONS

Q.No.	Questions
1.	An undirected graph G which is connected and acyclic is called _____ a) bipartite graph b) cyclic graph c) tree d) forest
2.	An n-vertex graph has _____ edges. a) n2 b) n-1 c) n*n d) n*(n+1)/2
3.	If G is a connected graph and H is a sugraph of G such that H is a tree ,containing all the vertices of G,then H is called a_____ a)regular tree b) forest c) spanning tree d) none of these
4.	A complete graph of 4 vertices is a) non-planar b) planar c) bipartite d)none of these
5.	Which graphs are nonplanar graphs? a)K_5 b) $K_{3,3}$ c) Both (a) and (b) d) none of these
6.	Chromatic number of complete graph K_n is a) n b)(n-1) c) n(n-1) d) none of these
7.	The Chromatic number of a path P_n , $(n \geq 2)$ Is a) 2 b) 3 c) n d) none of these
8.	 a) K4 is planar while Q3 is not b) both K4 and Q3 are planar c) Q3 is planar while K4 is not d) neither K4 or Q3 are planar
9.	Kruskal's algorithm is applied to obtain a) radius of a tree b) minimal spanning tree c)spanning tree d)none of these
10.	Dijkstra's algorithm is applied to obtain a) the shortest path between vertices b) the shortest path between edges c)spanning tree d)none of these