1) a) Point is a starting point of a graph.

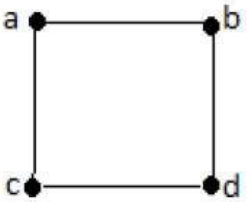
b) Line is a connection between two points.

c) Vertex is a point where multiple lines met.

d) Edge is a Mathematical term for a line. Always end with a vertex.

e) A graph is a pictorial representation of a set of objects where somr pairs of object are connected by links.

A graph 'G' is defined as G=(V,E) where V is a set of all vertices and E is a ret of all edge in graph.

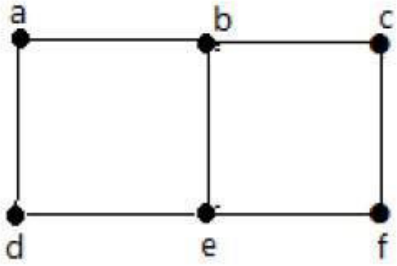


f) Loop:- In a graph , if an edge is drawn from vertex to itself , it is called a loop.

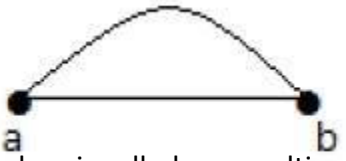
g)Pendent vertex:- A vertex with degree one is called a pendent vertex.

h)Isolated vertex:-A vertex with degree zero is called an isolated vertex(no connection).

i)Adjacency of vertex:- In a graph, two vertices are said to be adjacent, if there is an edge between the two vertices.



j)Parallel edges: If a pair of vertices is connected with more than one edges, it is called parallel edges.

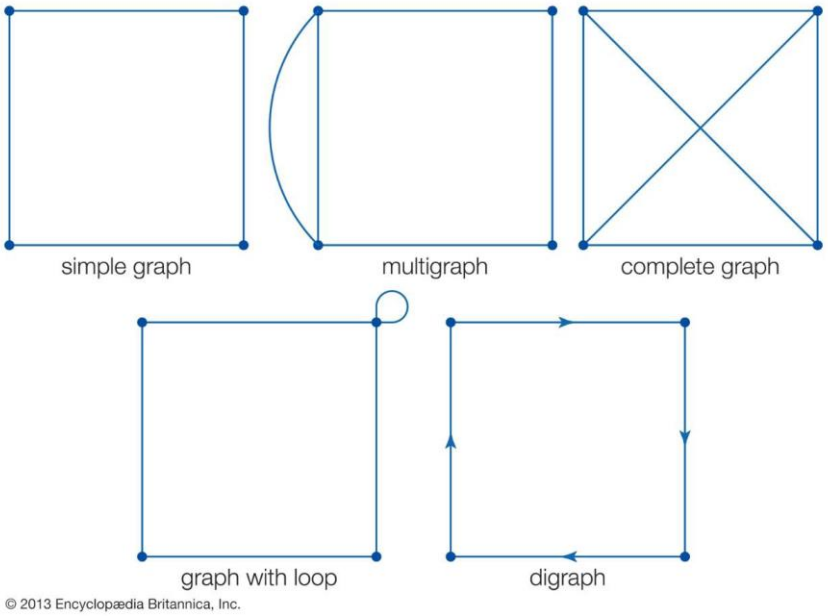


2) 1) Multi Graph – A graph having parallel edges is called as a multigraph.

2)Complete Graph – In this graph each pair of graph vertices is connected by an edge.

3)Digraph – This is called as directed graph. Digraph is a graph that is made up of a set of vertices connected by edges, where the edges have a direction associated with them.

4)Simple Graph – This is called as strict graph, is an unweighted, undirected graph containing no graph loops or multiple edges.



3) a) deg(A)=1
deg(B)=2
deg(C)=3
deg(D)=4
deg(E)=3
deg(F)=2
deg(G)=1

c) deg(1)=2
deg(2)=3
deg(3)=2
deg(4)=3
deg(5)=3
deg(6)=1

d) deg(a)=3
deg(b)=3
deg(c)=3
deg(d)=4
deg(e)=6
deg(f)=0

4) a)deg(A)=1
deg(B)=2
deg(C)=3
deg(D)=3
deg(E)=2

b) deg(A)=1
deg(B)=2
deg(C)=2
deg(D)=2
deg(E)=2
deg(F)=1

c) deg(1)=3
deg(2)=5
deg(3)=4
deg(4)=3
deg(5)=1
deg(6)=2

d) deg(1)=3
deg(2)=2
deg(3)=2
deg(4)=4
deg(5)=1