GRAPH THEORY

Question Bank

Helping Others Have Special taste

Questions

1) …….. the shortest path is considered as the distance between the two vertices

a) Distance b) Eccentricity c) Radius d) all

2) ……The maximum distance between a vertex to all other vertices

a) Diameter b) Eccentricity c) Radius d) Distance

3)……. The minimum eccentricity from all the vertices

a) Diameter b) Eccentricity c) Radius d) Distance

4) ……. The maximum eccentricity from all the vertices

a) Diameter b) Eccentricity c) Radius d) Distance

5) If the eccentricity of a graph is equal to its radius it is known as

a) Diameter b) Distance c) a,b d) Central Point

6) The number of edges in the longest cycle of 'G' is called …….

a) Diameter Girth c) Circumference d) Distance

7) The number of edges in the shortest cycle of 'G' is called …….

a) Diameter b) Girth c) Circumference d) Distance

8)……. written by G = G1 ∪G2, with vertex set V(G1)∪V(G2) and the edge set E(G1)∪E(G2).

a) Union b) Intersection c) Ring sum d) Tree

9)…….. written by G = G1 ∩G2, with vertex set V(G1)∩V(G2) and the edge set E(G1)∩E(G2).

a) Union b) Intersection c) Ring sum d) Join

10) …… edge set E(G1)⊕E(G2), where ⊕ is the symmetric difference (XOR Operation) of two sets

a) Union b) Intersection c) Ring sum d) Join

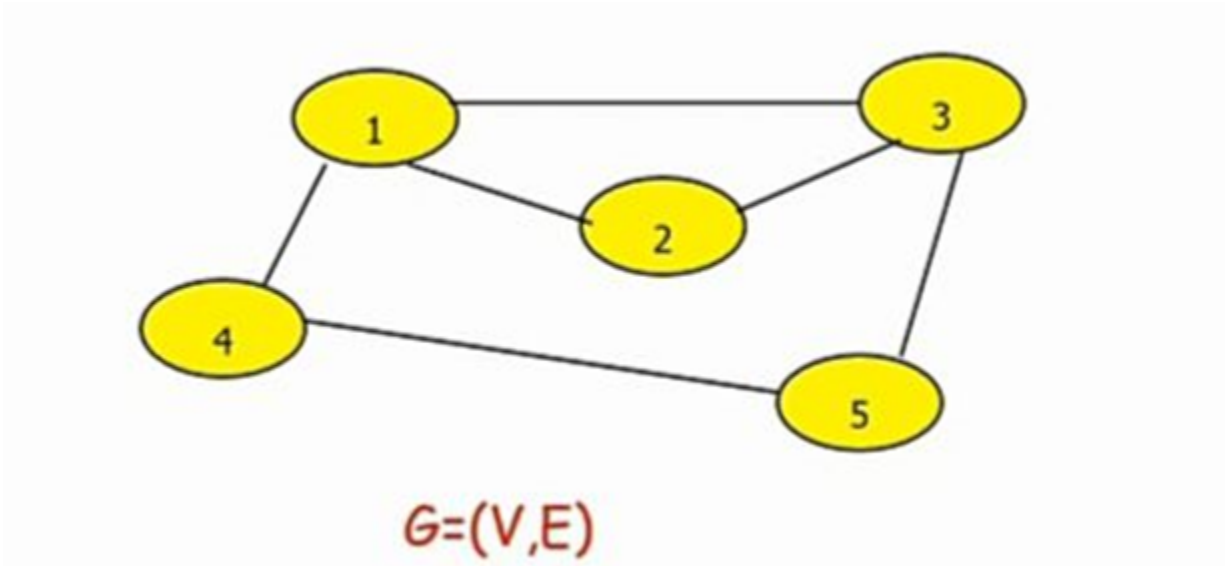
11) ….. G and H is defined as the graph in which every edge of the first graph is adjacent to all vertices of the second graph.

a) Union b) Intersection c) Ring sum d) Join

12) The union, intersection and ring sum operations of graphs are commutative. That is, G1 ∪G2 = G2 ∪G1,G1 ∩G2 = G2 ∩G1 and G1 ⊕G2 = G2 ⊕G1. ( )

13) If G1 and G2 are edge-disjoint, then G1 ∩ G2 is a null graph, and G1 ⊕ G2 = G1 ∪ G2. ( )

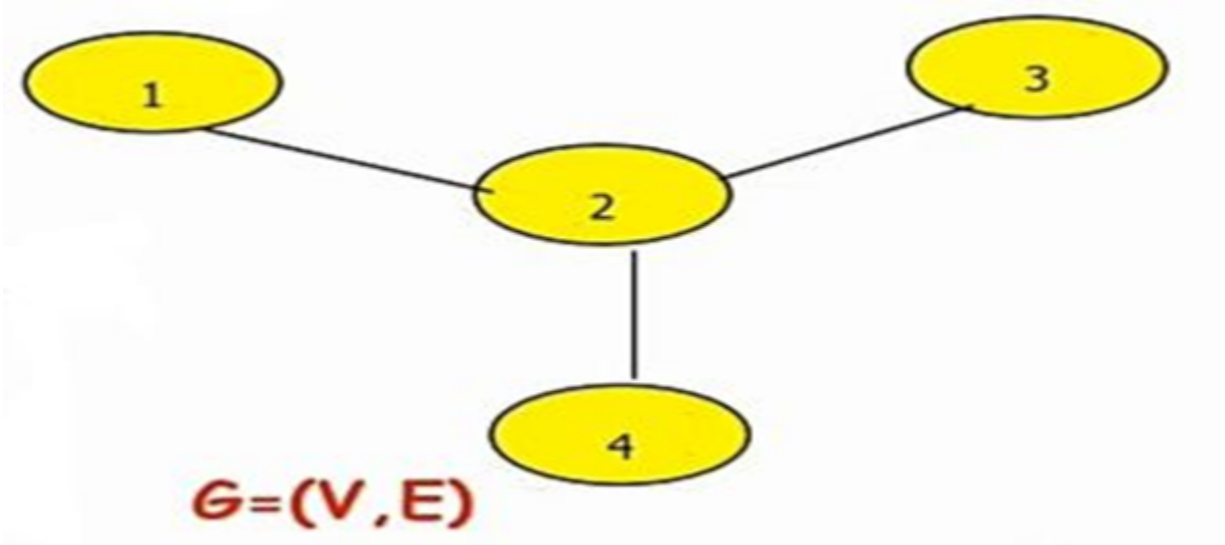
From 14 to 15



14) the distance between vertex (1,5) is …….

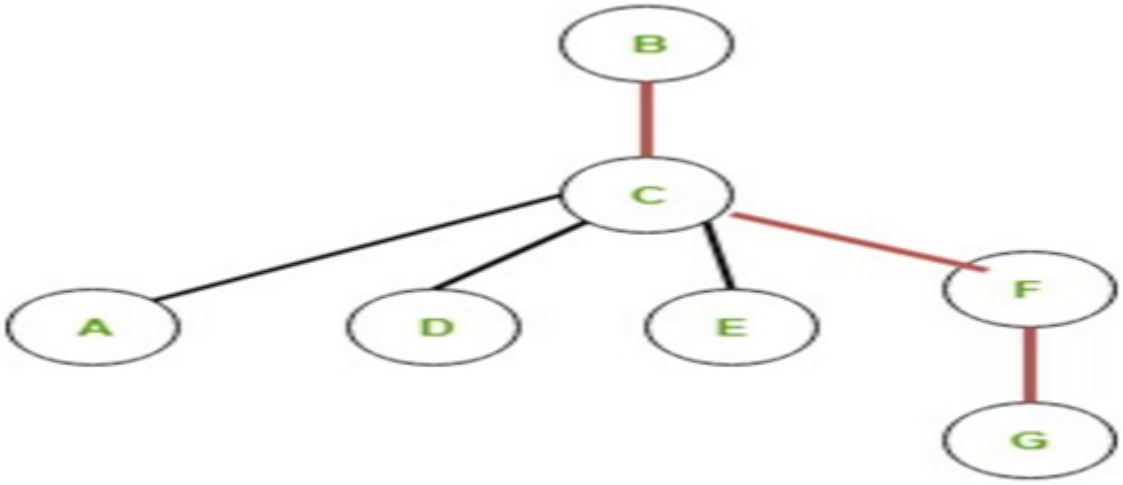
a) 1 b) 2 c) 3 d) 4

15) the eccentricity of node (3) = …..



a) 1 b) 2 c) 3 d) 4

16) the central in graph is node …..

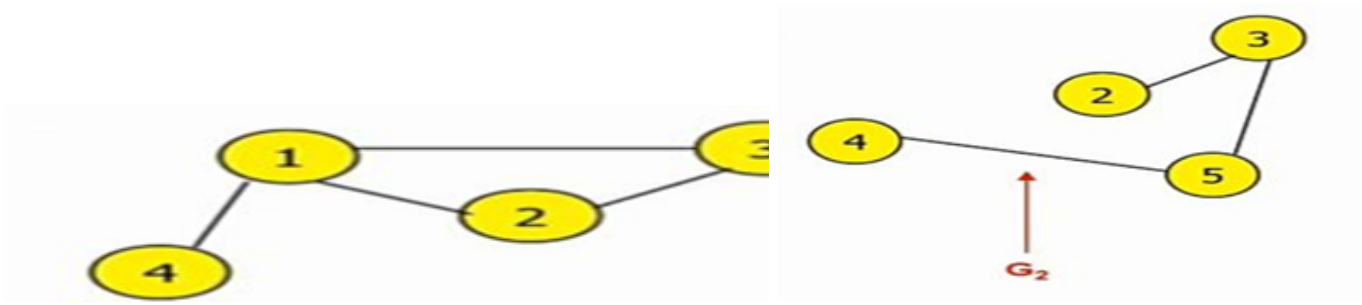


a) 1 b) 2 c) 3 d) 4

17) the diameter in graph = ….

a) 1 b) 2 c) 3 d) 4

from 18 to 23



18) number of vertices in union graph = …….

a) 2 b) 3 c) 4 d) 5

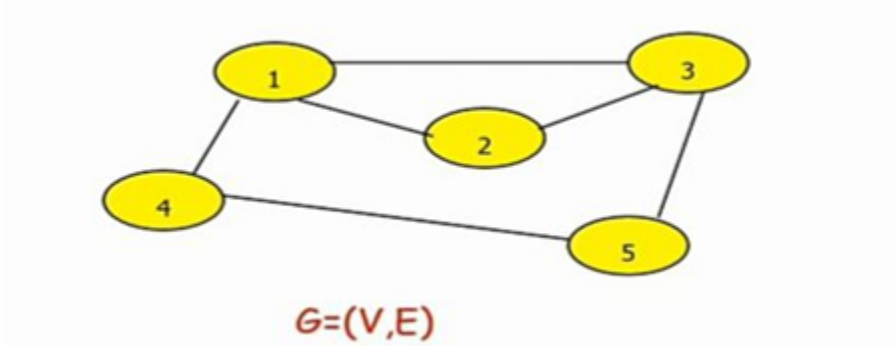
19) number of edges in union graph = …….

a) 1 b) 5 c) 6 d) 7

20) number of vertices in intersection graph = ……

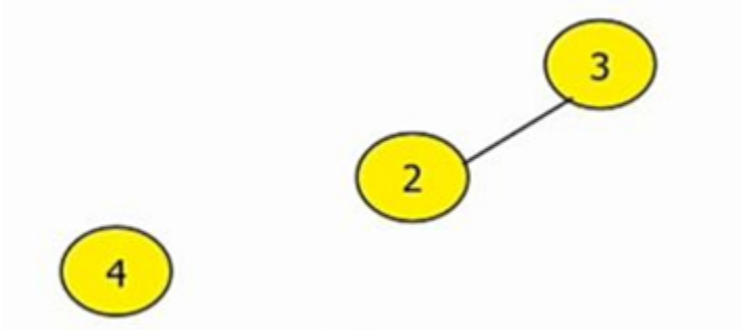
a) 2 b) 3 c) 4 d) 5

21) number of edges in intersection graph = …….



a) 1 b) 5 c) 6 d) 7

22) the union of G1 and G2 is this graph ( )



23) the intersection of G1 and G2 is this graph ( )

Answers

Question	Answer
1	A
2	B
3	C
4	A
5	D
6	C
7	B
8	A
9	B
10	C
11	D
12	True
13	True
14	B
15	B
16	B
17	C
18	D
19	C
20	B
21	A
22	True
23	True