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05DNS17F1007
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Question 1.

a) Weighted graph
b) Finite graph
c) Simple graph
d) Connected graph
e) complete graph

Question 2.

In a complete graph, there is an edge between every single pair of vertices in the graph. In a connected graph, it is a possible to get from every vertex in the graph to every other vertex in the graph through a series of edges, called a path. Since there is an edge between every pair of vertices in a complete graph, it must be the case that every complete graph is a connected graph. However, it's not necessarily the case that there is an edge between every vertex in a connected graph, not all connected graphs are complete graphs. A complete graph is a simple undirected graph in which every pair of distinct vertices is connected by a unique edge. A complete diggraph is a directed graph in which every pair distinct vertices is ~~con n~~ connected by a pair of unique edges.

Question 3.

The graphs given are not isomorphic graph because the position of degree of the vertices not the same. Eventhough the number of vertices, number of edges and the degrees of the vertices is the same, but the position of degrees of the vertices in the graph is not the same. Isomorphic graphs must be fulfilled all of

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Question 4

a) (i) A → B → D → C → A
(ii) A → B → C → D → A
(iii) A → D → B → C → A
(iv) A → C → B → D → A
(v) A → C → D → B → A
(vi) A → D → C → B → A

b) (i) 155
(ii) 190
(iii) 165
(iv) 165
(v) 155
(vi) 190

c) The shortest Hamilton circuit is A → B → D → C → A and A → C → D → B → A