Exercise

Choose the correct answer in the following:

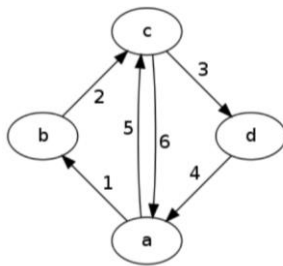1- An example of nodes is:

a\ Roads.   b\Pipes.   c\Airports.   d\Airlines.

2- An example of arcs is:

a\ Aircraft.   b\Intersections   c\Airports.   d\Airlines.

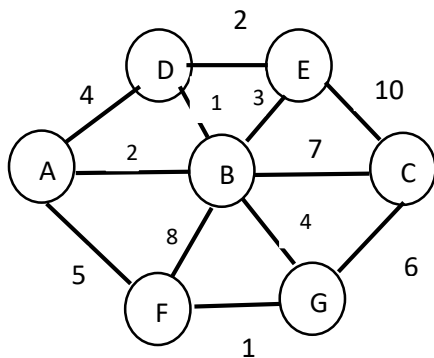3- according to the following; an example of directed cycle:

a\ AC→CA.   b\AB →BC →CA.   c\AC →CD →DA.   d\DA →AB

Question 2:

Use Kruskal's algorithm to find a set of links (n-1 links for n nodes) with shortest total length – spanning tree

Remember that Kruskal's algorithm the minimum spanning tree of the graph satisfy sub graph including:

- all vertices exist .
- connected .
- No cycles .

Iteration	Connected	Closest unconnected node	Arc
1	E	D	E-D
2	E,D	B	D-B
3	E,D,B	A	B-A
4	E,D,B,A	G	B-G
5	E,D,B,A,G	F	G-F
6	E,D,B,A,G,F	C	G-C

All nodes are now connected, so this solution to the problem is the desired (optimal) one. The total length of the links is 16 miles

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