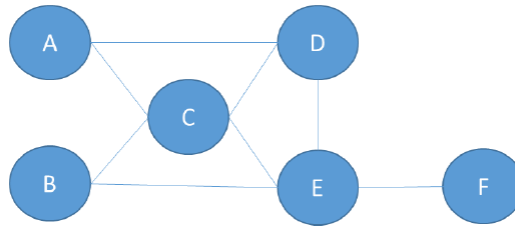


NetworkX Exercise-2

Q1. Write Python code using NetworkX package to draw a graph and write python code for the following:

Figure 1 below shows a graph. Answer the following questions using examples taken from the Figure.



- i) What is the neighbourhood set of Node C?
- ii) What is the path length between Node A and Node F?
- iii) Is the graph connected or disconnected?
- iv) What is the diameter of the graph?
- v) Calculate the local clustering coefficient for Node C in given graph,
- vi) Remove the highest degree node(s) in the graph and show the effect after removal?
- vii) Calculate the degree distribution for the nodes in given graph.
- viii) How many weakly connected components have the network and List the nodes in each of the weakly connected components.
- ix) Does the network contain a strongly connected component? If yes, which nodes are part of the strongly connected component?