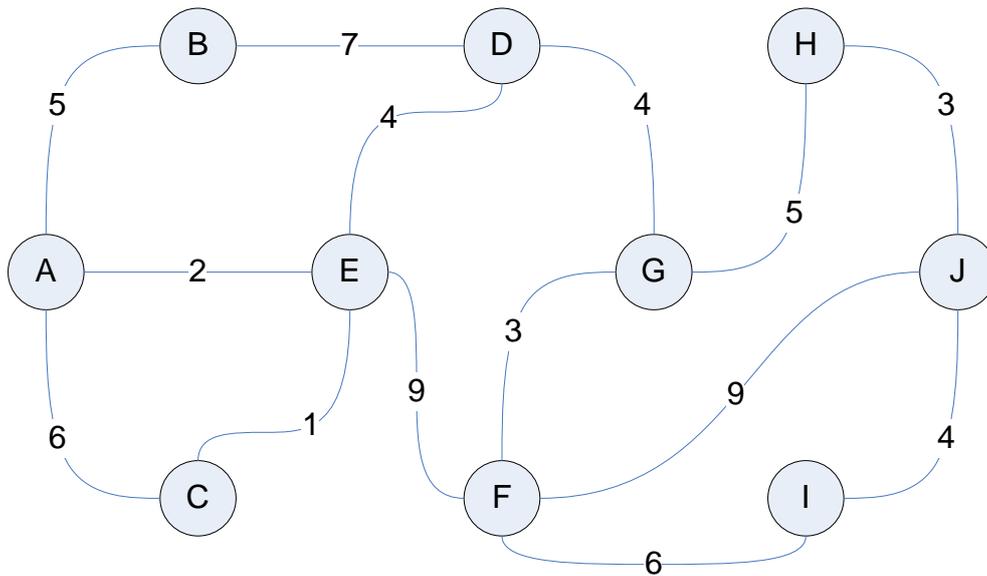


Question 4 [4 marks]

Consider the network below. For each link a cost is shown. Assume the links are bi-directional, and the costs are identical in both directions. Node A wants to send a packet to node J.



- What is the total cost of transmission if flooding is used? Assume the TTL is initially 3, and a node will only forward the same packet one time.
- Explain an advantage and disadvantage of using a shorter TTL of 2.
- If instead of flooding, a least-cost routing algorithm was used in the above network, what would be the cost of forwarding the packet?
- In comparison to flooding, what *other* transmission cost must be incurred in least-cost routing in addition to that in part (c)?