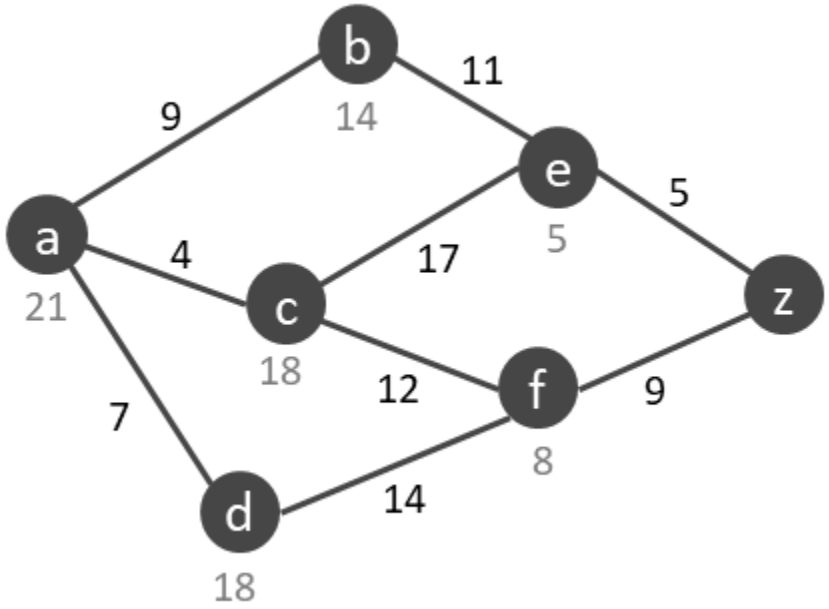
Question # 1:

You have been given a graph with Edge values and Node values:



Show Expansion for the following algorithms and their paths found for Node A -> Node Z:

- **A***
  Path:
  Expansion:

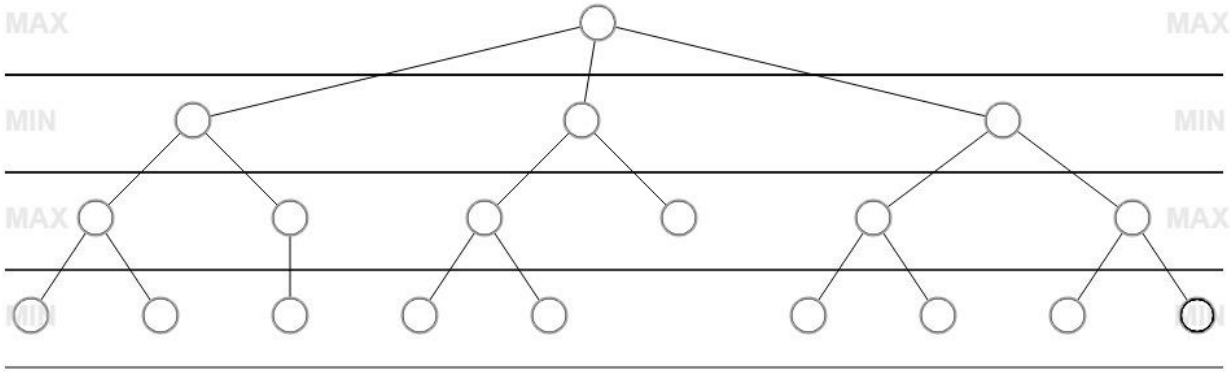
- **BFS**
  Path:
  Expansion:

- **DFS**
  Path:
  Expansion:

- **UFC**
  Path:
  Expansion:

Question # 2:

You have been given a tree with Node Variable Values:



Leaf Node Variable Values from Left to Right:

1. x = 2, y = 3, z = 10

2. x = 3, y = 4, z = 5

3. x = 5, y = 2, z = 6

4. x = 4, y = -3, z = 7

5. x = -2, y = 5, z = 9

6. x = -3, y = -2, z = 4

7. x = 6, y = 8, z = 2

8. x = 7, y = -4, z = 3

9. x = -4, y = 6, z = 8

10. x = 8, y = -5, z = 11

Use the evaluation formula x^(y/log(z)) to calculate the node values, then apply alpha – beta pruning.