# International Islamic University Islamabad
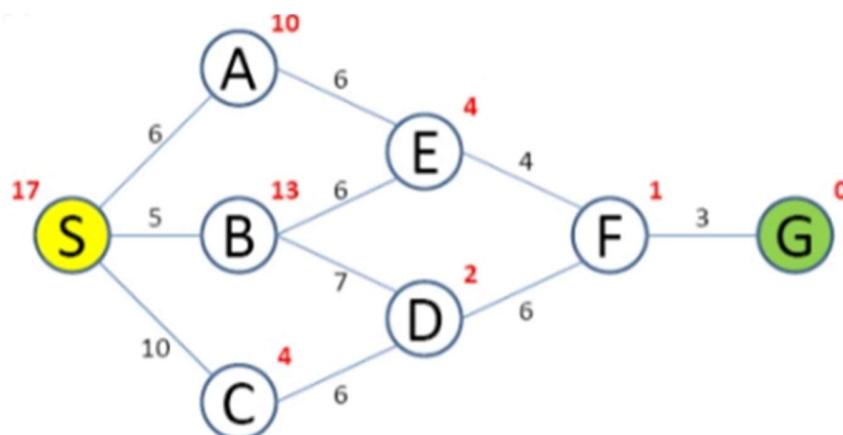
**Attempt all the questions. Each question carries 20 marks**

**Q # 1. Find the information gain of the following attributes A1 and A2.**
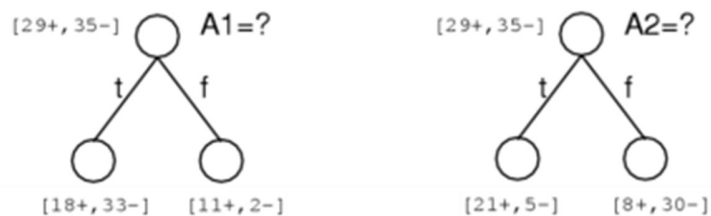


**Q# 2. Find the shortest path from node S to G by using A\* search algorithm. H values are mentioned in Red color.**

**Q# 3.  For the given graph find the R matrix and Q matrix by using Q learning algorithm.**

**For Q matrix find the values of the indexes Q(C, D), Q(A, E) , and Q(D, E)**