Q.1 Explain the AA with vertex cover problem. And prove that vertex cover problem is 2-approximate algorithm (AA).   [7]

Q.2 Solve the following linear programming problem using simplex method. [7]
      Maximize: $7x_1 + 8x_2 + 10x_3$
      Subject to: $x_1, x_2, x_3 \geq 0$
         $2x_1 + 3x_2 + 2x_3 \leq 1000$
         $1x_1 + 1x_2 + 2x_3 \leq 800$
Q.3 Write short note on any of one (a) String matching with FA   (b) Rabin Karp matching algorithm. [4]
Q.4 For the given network, find the maximum flow from S to T, using Ford Fulkerson Method. [7]

Govt. Women Engineering College, Ajmer
Department of Computer Science and Engineering
M. Tech I Semester IInd Mid Term Examination – November 2017

Subject: ADS   Subject Code: MCS1   Time: 1 Hr.   Max. Marks: **25**   Date of Examination: 15/11/2017

Q.1 Explain the AA with vertex cover problem. And prove that vertex cover problem is 2-approximate algorithm (AA). [7]
Q.2 Solve the following linear programming problem using simplex method. [7]
Q.3 Write short note on any of one (a) String matching with FA   (b) Rabin Karp matching algorithm. [4]
Q.4 For the given network, find the maximum flow from S to T, using Ford Fulkerson Method. [7]