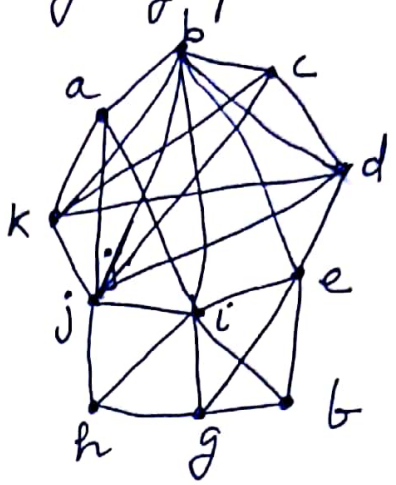
Section: D1914

ASSIGNMENT-3

Date: 31st March 2020

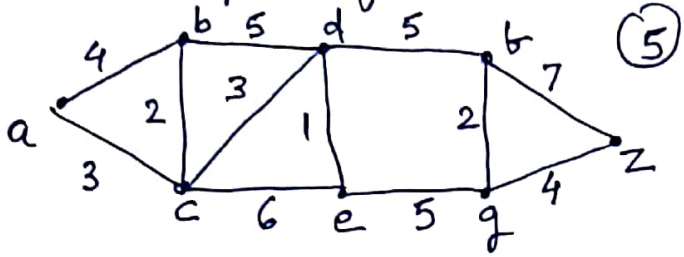
Q.1 Explain the city of Konigsberg problem. (5)

Q.2 Find the chromatic no. of the graph G. (5)



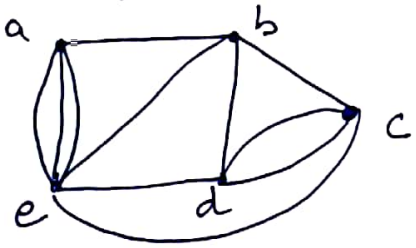
'G'

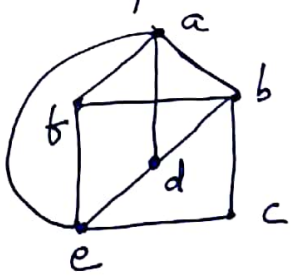
Q.3 Find the length of the shortest path from a to z (5)



Q.4 If G is a connected planar simple graph with e edges & v vertices, where $v \geq 3$, then $e \leq 3v-6$. Prove (5)

Q.5 Determine whether the graphs has an Euler circuit or Euler path. Construct the path. (4)





Q.6 Suppose that a connected planar graph has 25 vertices each of degree 4. Into how many regions does the planar representation has? (2)

Q.7 State Euler's formula. Verify it for the foll. graph. Also state its proof. (4)