BHARATI VIDYAPEETH'S
INSTITUTE OF COMPUTER APPLICATIONS & MANAGEMENT (BVICAM)
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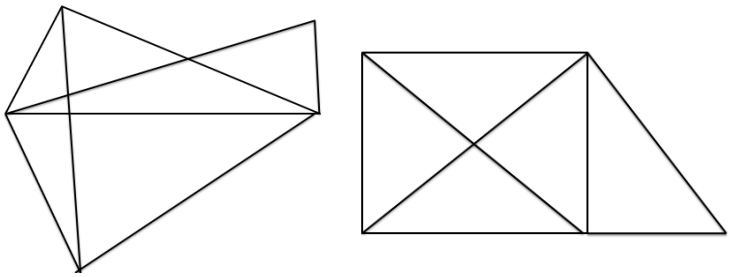
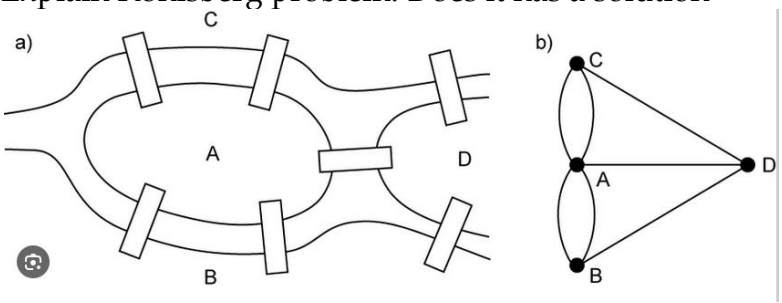
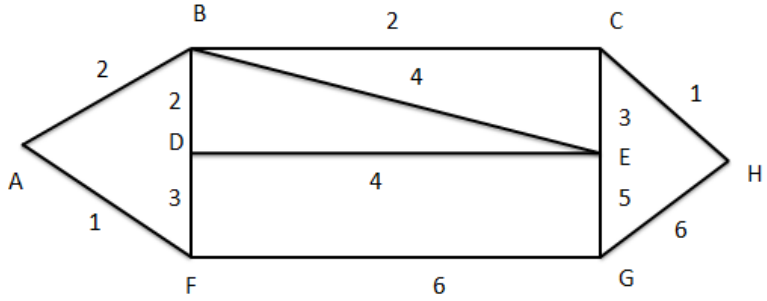
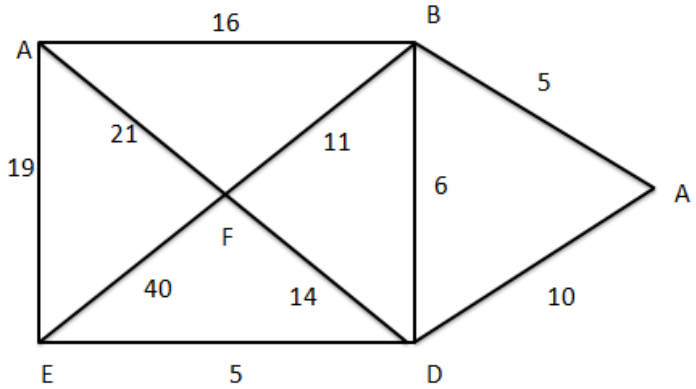
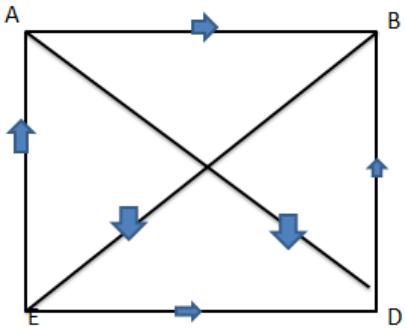
Course Code: MCA-101 Course Name: Discrete Structures

Assignment - 3

(Based on Unit - IV)

Sr. No.	Questions	BTL	CO	Marks
1	If all the vertices of an undirected graph are each of odd degree k, Prove that number of edges of graph is a multiple of k.	BTL4	CO5	5
2	For each of the following degree sequence find if there exists a graph. Draw it a) 4,4,4,3,2 b) 5,5,4,3,2,1 c) 3,3,3,3, 2	BTL1	CO5	5
3	Determine whether the following pairs of graph are isomorphic or not 	BTL5	CO5	5
4	Explain Konisberg problem. Does it has a solution 	BTL4	CO5	5
5	Analyse the following and give a suitable example for each a) An Eulerian circuit that is also a Hamiltonian circuit. b) An Eulerian circuit and a Hamiltonian circuit that is distinct. c) An Eulerian circuit but not a Hamiltonian circuit. d) An Hamiltonian circuit but not an euler circuit.	BTL4	CO5	5

	e) Neither an Eulerian circuit nor a Hamiltonian circuit.			
6	Determine shortest distance between A and H 	BTL4	CO5	5
7	Treanslate the expression ((a –c) * d)/ (a + (b – d)) as tree and write the prefix and postfix expression	BTL2	CO5	3
8	Evaluate the value of expression + - ^ 3 2 ^ 2 3 / 8 – 4 2	BTL5	CO5	3
9	Evaluate the minimum spanning tree 	BTL5	CO5	5
10	Determine which of the following is strongly , weakly or unilaterally connected 	BTL4	CO5	3