27/1/2020 Triveni. y CN lab 1BM19CS44 Write a program for distance program 2) vector algorithm to find suitable path for a given transmission. class Topology: det -init - (selt, array -of - points): self-nodes = array-of-points self. edges = [7: det add-direct-connection (self, PI, P2, : (£202 self edges. append ((pl, p2, cost)) self. edges. append ((p2, p1, Cost)) det distance-rector-wating (self): import collections for nodes in self. nodes: dist = collections. defaultdict (int) next-hop = { node : node } for other node in self. nodes: if other-node = node: displother-node = 10000000 1A J. Tollie

Scanned with CamScanner

11	DATE: / /
	# Bellman ford alpoithms
	0
	for i in range (self nodes) -1):
	for edge in self. edges:
1)	STC, do 94, COSA = edge
1	if dist [scc] + cost < dist [dest]:
程工	dist[dest] = dist[src] + cost
	if SXC = = node:
* /	rext - hop [dest] = dest
	elif STC in next-hop:
	nert-hop [dest] = nexthopad
	Self point routing table (node dist,
	Dekt-hop)
	by 28()
	det print-vousing-table (self, node, dist,
	Dens-pop)
	9 - (9
	priore (4, esouding dable for (node):)
	print (Dest/ + Cost / + Next Hop?)
	for dest, cost an dist. items U:
	print (f. faest) 1t lose & 14
	[next-hop [dest])
	18

1. (1. 1.

			Thousand the second sec
			18MI9CS411
to the second se			
	201	01	D' 1E'

	model = ['A', 'B', 'C', 'D', 'E']				
$\cdot \cdot \cdot I$.	t = Topology (nodes)				
	t. acid - direct connection ('A', 18', 1)				
9.2	1 - 11 yourse Connection (A)				
	on roser (apple chiop (B)				
	+ add-direct - connection (B, KE, d)				
	+ add-direct-connection (c' (), +)				
	1. add - direct - con nection (D', EF', 2)				
	J. add - disect-connection				
4121					
12 a					
	and the second second				
4					
	1 2				
1-1					
4					
	+ : 1 x } _ x } _ x _ 1 _ 1 _ 1 _ 1 _ 1 _ 1 _ 1 _ 1 _ 1				
1					
-	W. Kind I rate				

2A