1	HZ Kruskal's Algorithm								
1.	(a) Vertices: O,A,B,C	list of edges							
	7 B	edge	cost						
	8/8	AB	8						
	8 8	BA	8						
	AL 12	AC	12						
	3 12 3/1	cA	12						
	1/9 5/5	AO	3						
	36	DA (	13						
		BC	4						
<b>b</b> )	From O, visit A, B, C, and D and return	D. CB	4						
_	Greedy Path: From observing picture	ВО	5						
	0-8-D-A-C	03	5						
	0-B-C-B-D-A-20	Со	3						
-	OBC DAO with cost of	OC	9						
0	(13)  OAC (25) X OABD (28) X  OAB (28) X OBAC (25) X  OBA (21) X OBAC (25) X  OBA (21) OBC (21) X  OBC (21) OBC (23)  OCA (21) OCAD (26) X  OCA (21) OCAD (20) OCAD (21) X  OCA (21) OCAD (21) X  OCA (21) OCAD (21) X  OCA (2	OBCDA (21) OBDA C(25) OBDCA (25) OCBAD (36) OCBDA (36)	X 2X 21) —> 0 CBDA0 (24 220 X 220 X						
-	The shortest rounnes are 1 OCB DAO								

	Dizkstra's alamith A L							
	Justines adounted : 4 to			1	0 1		1	
	Node Node		ative o	distanc	e from A	Visited		redecessor
	B 4 2 C A	0	-			/		n/a
	B 3/1 B	100	5				A	
	E F 6 C	100	4			V	A	
	5 2 2	8	4			/	A	
	H G E		5			/	D	
	F	00	7	6		/	28	
	G	00	10	8			SF	
	Н	100	10	8		/	EE	-
	In teresse: HFDA	1	pplan			-	-	
	Final Answer: ADFH	with	cost	8		-	+	
_								
_	3. (a) Knuskal's	1.	at of	edge	?s		,	
	7 A 10 D & G 1		edge	-	cost	edo	1	cost
edge cost	B S E Many I want o	-	AB	1	4 ~	BI		5
LI IV	23 16 16 EV 5 I John E4		AD		10	В		
BC ZV	A	1	BC	1	2 V	E		6
FH 2	Total cost	1	DG		8	F		2 /
G5 3 7 1 1 3 7	= 4+2+3+4+1+2+3+5+3+1	+2	GJ		3 \	G	K	9
GH 3V	=30		JI		6	-	-	
AB 4V			K		4 \		-	
EF UX	(b) Prim's algorithm		L	I	1 \		-	
BE 5×	10 8 8 parts 11 3		I	F	S ×		-	
BD 5	1 5 5 to 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		F	C	6		-	
JK 1 6	2 4 3 6 4		Σ	BE	5 x			
HI 6	Tree: A8, BC, BD, BF, FH, H	E, HG	. E	H	2 V			
EG   6	Tree: A8, BC, BV, BF, FIII		}	114	3 V			
DG 89	GJ, HK, KL, LI	4+1		E	5 V			
	Cost. 4+2+5+1+2+2+3+3+3+			EF	4 ×			
	= 30		_	GH	13 V		13	
				HI	6			
				-	1		1	- 3,0,0
The same of the sa		No. of Concession, Name of Street, or other Persons, Name of Street, or ot						

No 4 3 edges Left grayh as labeled, two vertices only have 3 edges while for each, bertices onright graph, it contains even number of edges. By the requirement of Eulerian circuits, for every vertices, it needs to have even valence. ABCDHA Eulerian Circuit ABHGFEDCHFEOBCDHA 5. 0 For A has 4 degrees : Can not form a Gulerian Circuit B has degrees The form has no solution with degrees odd one single Eulerian path 5 degrees la has degrees 1= has 5 degrees. If we can construct a wall (door) on D to the autside or make the E has two nails USE this one as the two straight line segments does not necessarily mean two edges.