















































































































































































































No.	S	N	<u>L(a)</u>	$L(V_l)$	$L(V_2)$	$L(V_3)$	L(V4)	$L(V_5)$	$L(V_6)$	<u>L(z)</u>
0	{}	$\{a, V_1, V_2, V_3, V_4, V_5, V_6, z\}$	0	8	œ	×	80	œ	œ	80
1	<i>{a}</i>	$\{V_1, V_2, V_3, V_4, V_5, V_6, z\}$		3	4	∞	15	8	8	80
2	$\{a, V_i\}$	$\{V_2, V_3, V_4, V_5, V_6, z\}$		3	4	10	9	8	8	8
3	$\{\underline{a}, V_{I_1} \\ V_2\}$	$\{V_3, V_4, V_5, V_6, z\}$	s		4	10	9	8	8	13
4	$\{a, V_{1}, V_{2}, V_{5}\}$	$\{V_3, V_4, V_5, z\}$				10	9	8	8	13
5	$\{a, V_{I}, V_{2}, V_{5}, V_{4}\}$	$\{V_6, \underline{z}_{\cdot}\}$				10	9		16	13
6	$\{a, V_{1}, V_{2}, V_{3}, V_{4}, V_{3}, \}$	$\{V_{6}, z_{-}\}$				10		12. 	14	13
7	$\{\underline{a}, V_{l}, $	{Ko.}				-	-	-	14	13



<b>EXAMPLE 1</b>	The network in Figure 5 gives the distances in miles between pairs of cities A, B,, and H.											
	Figure 5											
Exercise	<ul> <li>a) Based on Dijkstra's algorithm, complete Table 1 to find the shortest path from city A to city H. (Note: Copy Table 1 into your answer booklet).</li> <li>(8 marks)</li> <li>Table 1</li> </ul>											
Past Year	Iteration	S	N	L(A)	L(B)	<i>L</i> (C)	<i>L</i> ( <b>D</b> )	<i>L</i> (E)	<i>L</i> (F)	<i>L</i> (G)	<i>L</i> (H)	
2015/2016	0		a 3 6 8			0 8 8 8			2			
2015/2016	1		a - 1			2 2		2 - 2			8 <u> </u> 8	
	3		a - 2	) X		а <u></u> б	-	a - 2			8 <u></u> 8	
	4		a	-		6 <u>8</u>		4 A	-		e	
	5			*		< 8		3 6	*		8	
	6		d - 0			<del>e s</del>		d d				
	7		<i>i</i> 3			8 C		Î		3		
innovative ● entrepreneurial ● global	b) State th	e minii	mum di	stance a	nd the s	hortest	path fro	m city :	1 to city	8.	(2 marks)	