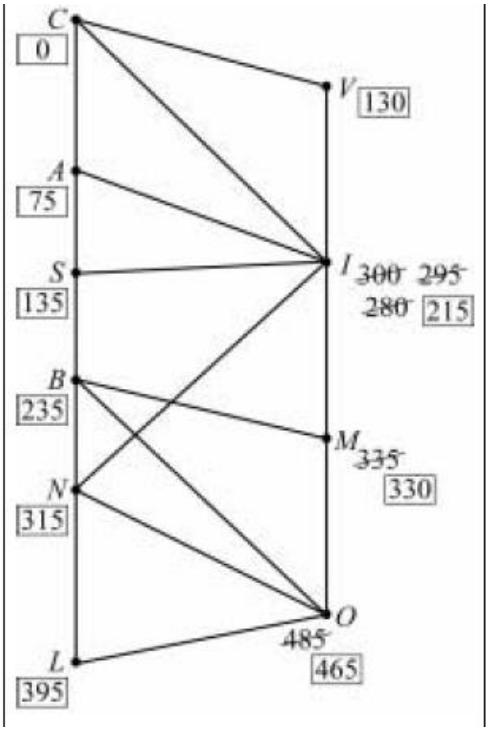
Decision 1 Route Inspection Answers

7(a)	Odd vertices (at *A, B, C, I*)	E1	1	
(b)	$AB + CI = 100 + 440 = 540$ $AC + BI = 150 + 450 = 600$ $AI + BC = 380 + 120 = 500$	M1 A2,1,0		
	Repeat $AI + BC$	E1		May be implied
	Distance $2090 + 500 = 2590$	B1	5	
(c)	Route with (3*A*), 2*B*, 2*C*, 3*D*, 2*E*, 2*F*, 3*G*, 1*H*, 2*I*, 1*J*	M1		$(16 \rightarrow 21)$
	= 18	A1	2	
	Total		**8**	

4(a)	A, C, D, F odd nodes	B1		May be implied
	AC + DF = 18 + 22 = 40	M1		
	AD + CF = 32 + 30 = 62	A2,1,0		
	AF + CD = 12 + 30 = 42			
	Repeat AC + DF	B1		May be implied
	Total 164 + 40 = 204	B1	6	
(b)	Start/finish A/C			
	∴ Repeat DF	B1		Or subtract AC
	Total 164 + 22 =186	B1	2	
(c)(i)	Shortest pair AF	B1		
	Distance = 164 +12 = 176	B1	2	
(ii)	Start/Finish at C/D	B1	1	May be listed in a route

7(a)(i)		M1 M1 M1 M1 A1 B1	6	SCA 4 values at I 2 values at M 2 values at O All correct 465 at O
(ii)	*CASINO*	B1	1	Or *ONISAC*
(b)(i)	$A \rightarrow M = 255$	B1	1	
(ii)	Odds (C, A, S, M)	M1		PI
	$CA + SM = 270$ $CS + AM = 390$ $CM + AS = 390$	A3		(–1 EE)
	Min 2280 + 270	M1		2280 + their best pairing
	= 2550	A1	6	SC 2/6 for answer 2550 with no working
	Total		**14**	