

**PRIM'S ALGORITHM
SOLUTIONS**

	⑤ A	② B	④ C	① D	⑥ E	③ F
A	-	7	③	-	8	11
B	7	-	4	②	-	7
C	3	④	-	5	9	-
D	-	2	5	-	6	3
E	8	-	9	⑥	-	-
F	11	7	-	③	-	-

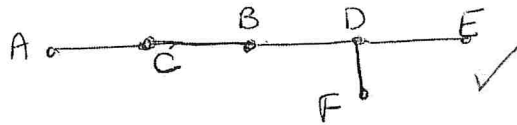


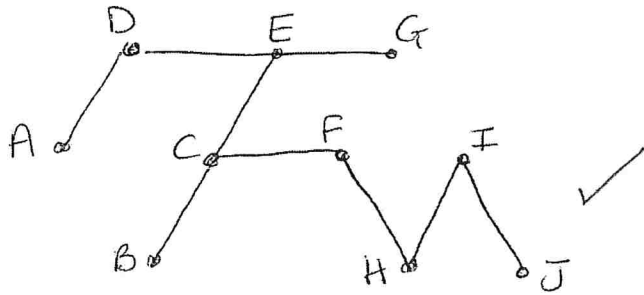
table ✓✓

- 1)
- DB 2
 - ④ DF 3
 - ✓ BC 4
 - CA 3
 - DE 6

2) a) order of choice

AD	15	
DE	17	
EC	19	
EG	21	
CB	21	
CF	25	
FH	12	
HI	27	✓✓
IJ	<u>31</u>	
	<u>188</u>	

length = 188 km. ✓



④

b) Use Kruskal's; with AB & FI already chosen. Prm's adds in new vertices, so would never choose A, B, F or I ✓

②

3 a). Kruskal's adds in new edges and need not be connected. Prm's adds in new vertices and is always connected during the process. ✓

②

b)

Prm's	
AC	15
AB	17 ✓
BD	16
BE	24 ✓
EF	14
EG	20 ✓

Kruskal's	
EF	14
AC	15 ✓
BD	16
AB	17 ✓
AD	reject
EG	20
FG	reject ✓
BE	24

✓ for rejects

⑧

