

Design and Analysis of Algorithms (DSC – 11)

Assignment

Name	Place	Nearest Station
Abhijeet	Jharkhand	Dhanbad Junction(DHN)
Ahrnish	Sikkim	NJP Jalpaiguri
Rahul	Mathura, UP	Mathura Junction(MTJ)
Jatin	Haryana	Hisar(HSR)
Anushka	Himachal Pradesh	Simla(SML)
Jobayer	Bangladesh	Dhaka Contonment(DAKA)
Sajal	Patna, Bihar	Patna Jn(PNBE)
Pratham	Mohali, Punjab	ShahibJada Asngr (SASN)
Vijay	Uttarakhand	Ramnagar(RMR)
Abitatha	West Bengal	Howrah Junction(HWH)
Prakhar	Madhya Pradesh	Bhopal Jn(BPL)
Dhrupad	Assam	Guwahati (GHY)
Prashant	Chhattisgarh	Bilaspur Jn(BSP)
Anjali	Rajasthan	Jaipur(JP)

A. Q 1. Note down the nearest railway station or state capital as destination.

Q2. Note down distances from railway routes.

Q3. Plan a journey for all destination from all sources taking distance as edge weight.

B. Calculate total journey expenditure based upon third AC class. Suppose the maximum weight carrying capacity of the traveller is 15kg then find out the necessary items which traveller should put in the bag.

- a). Clothes – 2 kg
- b). Blanket – 2 kg
- c). Other Essential Items – 1 kg
- d). A reserved meal – 500g
- e). Water Bottle – 1kg

f). Laptop and accessories – 3 kg

Take other necessary items.

Path	Distance (in kms)	Travel Cost(Rs)
DHN to NJP via ASN(Asansol)	575	945
DHN to MTJ	1200	1490
DHN to HSR via NDLS(New Delhi)	1371	3145
DHN to SML via KLK(Kalka)	1548	2275
DHN to DAKA	875	10,000
DHN to PNBE	291	505
DHN to SASN(RPJ)	1372	1565
DHN to RMR(SEO)	1117	1385
DHN to HWH	263	555
DHN to BPL	1226	1460
DHN to GHY	962	1265
DHN to BSP	643	980
DHN to JP	1244	1535
NJP to MTJ(AJN)	1670	1500
NJP To HSR(Jind)	1660	1775
NJP to SML via Delhi	1731	2520
NJP to DAKA	1020	3500
NJP to PNBE	632	970
NJP to SASN(Ambala)	1647	1760
NJP to RMR(via Delhi)	1668	2155
NJP to HWH	567	895
NJP to BPL	1594	1720
NJP to GHY	411	1400
NJP to BSP	1273	1540
NJP to JP	1535	1690
MTJ to HSR	268	555
MTJ to SML(Chandigarh)	384	680

MTJ to DAKA	1750	5000
MTJ to PNBE	912	1230
MTJ to SASN	384	680
MTJ to RMR	358	600
MTJ to HWH	1410	1600
MTJ to BPL	560	945
MTJ to GHY	1774	1865
MTJ to BSP	1359	1610
MTJ to JP	274	555
HSR to SML(Chandigarh)	188	505
HSR to DAKA	1920	5000
HSR to PNBE	1169	1425
HSR to SASN	290	505
HSR to RMR(via Delhi)	400	570
HSR to HWH	1628	3320
HSR to BPL	829	1200
HSR to GHY	2071	2040
HSR to BSP	1339	1780
HSR to JP	349	620
SML to DAKA	1900	4000
SML to PNBE	1209	1505
SML to SASN	96	745
SML to RMR	273	555
SML to HWH	1709	1875
SML to BPL	944	1320
SML to GHY	2087	2060
SML to BSP	1759	2255
SML to JP	582	730
DAKA to PNBE	900	3000
DAKA to SASN	2125	5000

DAKA to RMR	2075	5000
DAKA to HWH	375	2000
DAKA to BPL	1725	4000
DAKA to GHY	1375	4000
DAKA to BSP	1175	4000
DAKA to JP	1875	4000
PNBE to SASN	1154	1425
PNBE to RMR	912	1230
PNBE to HWH	531	870
PNBE to BPL	1142	1405
PNBE to GHY	910	1345
PNBE to BSP	967	1275
PNBE to JP	1374	1565
SASN to RMR	242	505
SASN to HWH	1684	1860
SASN to BPL	927	1285
SASN to GHY	2087	2060
SASN to BSP	1789	1865
SASN to JP	580	940
RMR to HWH	1443	1620
RMR to BPL	858	1405
RMR to GHY	1743	1845
RMR to BSP	1195	1650
RMR to JP	584	920
HWH to BPL	1475	1635
HWH to GHY	998	1365
HWH to BSP	720	1100
HWH to JP	1501	1715

BPL to GHY	1924	2335
BPL to BSP	736	1120
BPL to JP	791	1120
GHY to BSP	1729	1840
GHY to JP	1964	1990
BSP to JP	1504	1715