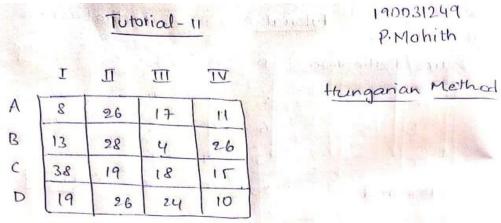## MP-1 TUTORIAL-11
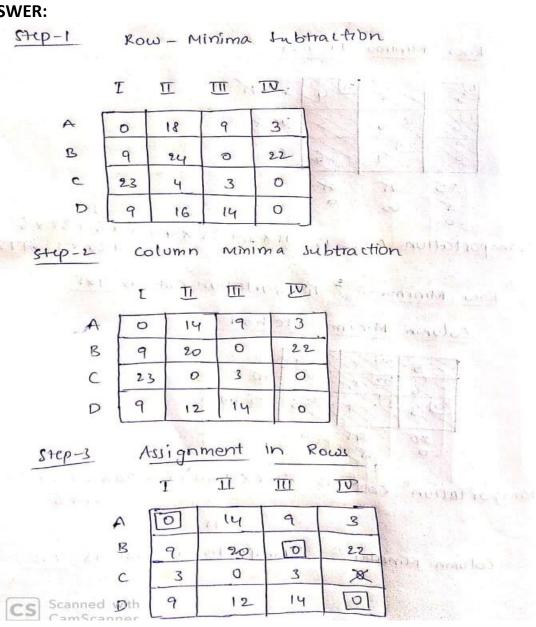
1. Demonstrate the Assignment problem using Hungarian method.

QUESTION:

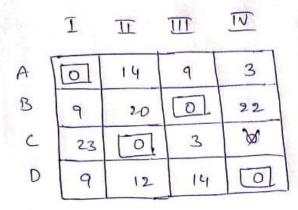Tutorial-11   190031249
                                               P.Mohith

                                          Hungarian Method

	I	II	III	IV
A	8	26	17	11
B	13	28	4	26
C	38	19	18	15
D	19	26	24	10

ANSWER:

Step-1   Row — Minima Subtraction

	I	II	III	IV
A	0	18	9	3
B	9	24	0	22
C	23	4	3	0
D	9	16	14	0

Step-2   Column minima Subtraction

	I	II	III	IV
A	0	14	9	3
B	9	20	0	22
C	23	0	3	0
D	9	12	14	0

Step-3   Assignment in Rows

	I	II	III	IV
A	[0]	14	9	3
B	9	20	[0]	22
C	3	0	3	☒
D	9	12	14	[0]

step-4   Assignment in column

	I	II	III	IV
A	[0]	14	9	3
B	9	20	[0]	22
C	23	[0]	3	X
D	9	12	14	[0]

step-5 (Draw Minimum lines)

→ In each row only one Assigment is done

→ In each column only one Assigment is done.

→ All jobs are assigned, all persons are Assigned

→ we have reached to optimal solution.

Assignments of Jobs

A → I , B → III , C → II , D → IV

Minimum no.of hours
        = 8 + 4 + 19 + 10 = 31 hours