

TEST CASE-1 For 25 Faculties, 11 FdCDC, 7 FdElec, 5 HdCDC, 5 HdElec

Faculty_Name	Faculty_Num	Max_Load	Course_Pref	Elec_Pref	Hd_CDC_Pref	Hd_Elec_Pref
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Professor_1	1	3	[10 8 6 11]	[7 3 5 1]	[4 5]	[5 3]
Professor_2	2	3	[7 2 4 1]	[2 5 8 4]	[5 3]	[3 5]
Professor_3	3	3	[2 3 5 11]	[3 5 6 2]	[5 1]	[5 2]
Professor_4	4	3	[11 6 3 1]	[7 4 2 6]	[4 3]	[5 2]
Professor_5	5	3	[4 6 11 8]	[1 7 5 3]	[4 5]	[4 1]
Professor_6	6	3	[5 4 10 9]	[8 6 2 7]	[2 5]	[2 4]
Professor_7	7	3	[1 8 3 4]	[2 5 7 4]	[1 4]	[2 5]
Professor_8	8	3	[1 5 4 7]	[2 1 7 3]	[4 1]	[5 2]
Professor_9	9	3	[6 8 4 1]	[2 1 8 5]	[5 3]	[5 1]
Professor_10	10	2	[10 11 4 7]	[2 1 5 4]	[4 3]	[4 1]
Professor_11	11	2	[1 4 5 2]	[3 7 5 6]	[3 2]	[4 3]
Professor_12	12	2	[10 1 5 8]	[8 2 1 3]	[2 4]	[1 3]
Professor_13	13	2	[5 4 10 8]	[3 5 7 8]	[4 3]	[2 3]
Professor_14	14	2	[11 3 7 9]	[7 6 4 2]	[3 1]	[3 2]
Professor_15	15	2	[7 3 11 10]	[7 4 6 8]	[3 2]	[3 4]
Professor_16	16	2	[10 7 8 4]	[6 7 4 1]	[3 2]	[1 2]
Professor_17	17	2	[5 9 3 7]	[5 4 6 8]	[1 4]	[3 5]
Professor_18	18	2	[11 6 5 4]	[6 1 4 7]	[4 5]	[2 3]
Professor_19	19	2	[5 4 8 10]	[4 2 6 1]	[4 2]	[1 4]
Professor_20	20	2	[10 8 9 2]	[4 2 7 6]	[5 4]	[2 4]
Professor_21	21	2	[8 11 4 9]	[5 7 1 2]	[2 1]	[2 4]
Professor_22	22	2	[4 6 3 5]	[7 1 3 5]	[5 3]	[2 5]
Professor_23	23	2	[5 4 10 9]	[7 1 8 2]	[5 1]	[2 1]
Professor_24	24	2	[6 10 2 9]	[8 3 5 1]	[4 3]	[4 5]
Professor_25	25	2	[10 1 3 9]	[2 6 7 4]	[5 2]	[4 3]

FD CDC Assignment

Professor_1 is assigned half fd cdc course 10 and half fd cdc course 6
Professor_2 is assigned full fd cdc course 7
Professor_3 is assigned half fd cdc course 2 and half fd cdc course 3 and half fd cdc course 11
Professor_4 is assigned half fd cdc course 11
Professor_5 is assigned half fd cdc course 4
Professor_6 is assigned half fd cdc course 5
Professor_7 is assigned half fd cdc course 1
Professor_9 is assigned half fd cdc course 6 and half fd cdc course 1
Professor_21 is assigned half fd cdc course 8
Professor_17 is assigned full fd cdc course 9
Professor_25 is assigned half fd cdc course 3
Professor_13 is assigned half fd cdc course 8
Professor_18 is assigned half fd cdc course 4
Professor_19 is assigned half fd cdc course 10
Professor_20 is assigned half fd cdc course 2
Professor_22 is assigned half fd cdc course 5

FD Elective Assignment

Professor_1 is assigned half fd elective course 1
Professor_2 is assigned half fd elective course 2
Professor_4 is assigned half fd elective course 2
Professor_4 is assigned half fd elective course 4
Professor_5 is assigned half fd elective course 1
Professor_5 is assigned half fd elective course 3
Professor_6 is assigned full fd elective course 6
Professor_7 is assigned half fd elective course 4
Professor_7 is assigned half fd elective course 5
Professor_8 is assigned half fd elective course 3
Professor_8 is assigned full fd elective course 7
Professor_9 is assigned half fd elective course 5
Professor_12 is assigned full fd elective course 8

HD CDC Assignment

Professor_10 is assigned full hd cdc course 3
Professor_11 is assigned full hd cdc course 2
Professor_13 is assigned half hd cdc course 4
Professor_14 is assigned full hd cdc course 1
Professor_18 is assigned half hd cdc course 4
Professor_20 is assigned half hd cdc course 5
Professor_22 is assigned half hd cdc course 5

HD Elective Assignment

Professor_15 is assigned full hd elective course 3
Professor_16 is assigned full hd elective course 1
Professor_19 is assigned half hd elective course 4
Professor_21 is assigned half hd elective course 2
Professor_23 is assigned half hd elective course 2
Professor_24 is assigned half hd elective course 4

TEST CASE-2 FOR 30 Faculties, 11 FdCDC, 10 FdElec, 7 HdCDC, 5 HdElec

Faculty_Name	Faculty_Num	Max_Load	Course_Pref	Elec_Pref	Hd_CDC_Pref	Hd_Elec_Pref
Professor_1	1	3	[6 7 3 4]	[5 8 1 9]	[5 6]	[1 2]
Professor_2	2	3	[5 8 4 2]	[7 1 4 5]	[7 2]	[1 5]
Professor_3	3	3	[3 1 7 6]	[6 1 4 10]	[1 4]	[2 1]
Professor_4	4	3	[10 1 11 6]	[4 7 8 1]	[3 4]	[1 2]
Professor_5	5	3	[4 1 3 5]	[1 2 4 7]	[3 5]	[3 4]
Professor_6	6	3	[2 3 9 6]	[10 8 9 5]	[4 1]	[2 3]
Professor_7	7	3	[1 7 8 3]	[1 4 8 9]	[7 4]	[4 3]
Professor_8	8	3	[3 11 5 6]	[9 1 4 3]	[7 3]	[5 1]
Professor_9	9	3	[5 8 1 10]	[1 2 3 9]	[6 4]	[2 4]
Professor_10	10	3	[3 2 5 9]	[10 6 2 8]	[3 5]	[4 2]
Professor_11	11	3	[6 10 9 4]	[6 8 10 2]	[1 3]	[2 3]
Professor_12	12	2	[1 11 4 7]	[9 10 1 4]	[7 4]	[4 5]
Professor_13	13	2	[9 5 1 11]	[2 5 3 4]	[5 6]	[3 1]
Professor_14	14	2	[1 7 2 11]	[9 1 7 3]	[2 1]	[3 1]
Professor_15	15	2	[8 9 3 6]	[3 8 7 5]	[2 5]	[4 5]
Professor_16	16	2	[4 6 7 10]	[5 8 7 4]	[4 3]	[1 5]
Professor_17	17	2	[9 1 2 11]	[6 9 1 7]	[2 6]	[2 4]
Professor_18	18	2	[10 2 9 4]	[10 9 1 7]	[2 5]	[1 4]
Professor_19	19	2	[9 2 6 8]	[9 1 4 6]	[2 5]	[4 5]
Professor_20	20	2	[4 1 10 2]	[7 1 9 6]	[6 3]	[4 3]
Professor_21	21	2	[7 10 1 8]	[7 3 10 4]	[7 1]	[5 4]
Professor_22	22	2	[9 10 2 6]	[9 3 1 2]	[6 1]	[2 4]
Professor_23	23	2	[2 3 1 5]	[3 2 8 4]	[1 5]	[3 2]
Professor_24	24	2	[5 3 6 7]	[3 8 9 6]	[5 6]	[4 3]
Professor_25	25	2	[11 9 7 6]	[10 8 4 2]	[4 2]	[2 4]
Professor_26	26	2	[6 4 11 10]	[9 2 4 8]	[3 4]	[4 3]
Professor_27	27	2	[3 8 10 2]	[1 4 8 6]	[1 7]	[1 4]
Professor_28	28	2	[1 3 7 2]	[4 1 5 6]	[7 2]	[2 5]
Professor_29	29	2	[5 2 10 3]	[5 3 7 6]	[6 3]	[4 5]
Professor_30	30	2	[8 11 6 2]	[5 6 2 7]	[7 2]	[3 4]

Possible Solution Number: 1

FD CDC Assignment

Professor_1 is assigned full fd cdc course 6
Professor_2 is assigned half fd cdc course 5
Professor_3 is assigned half fd cdc course 3
Professor_4 is assigned half fd cdc course 10
Professor_5 is assigned half fd cdc course 4
Professor_6 is assigned half fd cdc course 2
Professor_7 is assigned half fd cdc course 1
Professor_13 is assigned half fd cdc course 9
Professor_15 is assigned half fd cdc course 8
Professor_21 is assigned half fd cdc course 7 and half fd cdc course 8
Professor_25 is assigned full fd cdc course 11
Professor_23 is assigned half fd cdc course 1 and half fd cdc course 5
Professor_10 is assigned half fd cdc course 9
Professor_18 is assigned half fd cdc course 4
Professor_24 is assigned half fd cdc course 7
Professor_26 is assigned half fd cdc course 10
Professor_29 is assigned half fd cdc course 3
Professor_30 is assigned half fd cdc course 2

FD Elective Assignment

Professor_1 is assigned half fd elective course 1
Professor_2 is assigned half fd elective course 1
Professor_2 is assigned half fd elective course 4
Professor_3 is assigned half fd elective course 4
Professor_3 is assigned half fd elective course 6
Professor_4 is assigned full fd elective course 7
Professor_5 is assigned full fd elective course 2
Professor_6 is assigned full fd elective course 5
Professor_7 is assigned full fd elective course 8
Professor_8 is assigned full fd elective course 3
Professor_8 is assigned half fd elective course 9
Professor_9 is assigned half fd elective course 9
Professor_10 is assigned half fd elective course 6
Professor_10 is assigned half fd elective course 10
Professor_11 is assigned half fd elective course 10

HD CDC Assignment

Professor_9 is assigned full hd cdc course 4
Professor_11 is assigned full hd cdc course 1
Professor_12 is assigned full hd cdc course 7
Professor_13 is assigned half hd cdc course 5
Professor_14 is assigned full hd cdc course 2
Professor_15 is assigned half hd cdc course 5
Professor_16 is assigned full hd cdc course 3
Professor_17 is assigned full hd cdc course 6

HD Elective Assignment

Professor_18 is assigned half hd elective course 1
Professor_19 is assigned full hd elective course 4
Professor_20 is assigned full hd elective course 3
Professor_22 is assigned full hd elective course 2
Professor_27 is assigned half hd elective course 1
Professor_28 is assigned full hd elective course 5

End Case