

2) 1 2 3 4 5 6 A B C D 1 3 2 5 3 6  
 0001 0010 0011 0100 0101 0110 1010 1011 1100  
 1101 0001 0011 0010 0101 0011 0110

	1	2	3	4	5	6	7	8
1	0	0	0	1	0	0	1	0
2	0	0	1	1	0	1	0	0
3	0	1	0	1	0	1	1	0
4	1	0	1	0	1	0	1	1
5	1	1	0	0	1	1	0	1
6	0	0	0	1	0	0	1	1
7	0	0	1	0	0	1	0	1
8	0	0	1	1	0	1	1	0

Initial Permutation:

	1	2	3	4	5	6	7	8
1	58	50	42	34	26	18	10	2
2	60	52	<del>44</del> 36	28	20	12	4	
3	62	54	<del>46</del> 38	30	22	14	6	
4	64	56	<del>48</del> 40	32	24	16	8	
5	<del>51</del> 59	<del>49</del> 51	<del>41</del> 43	33	25	17	9	1
6	59	51	43	35	27	19	11	3
7	61	53	45	37	29	21	13	5
8	63	55	47	39	31	23	15	7

# Initial Permutation:-

Date \_\_\_\_\_

Page No. \_\_\_\_\_



	1	2	3	4	5	6	7	8
1	0	0	0	1	0	1	0	0
2	1	0	1	0	0	1	1	1
3	1	1	0	1	0	1	1	0
4	0	1	1	1	1	0	0	0
5	0	0	0	1	1	0	0	0
6	1	1	0	0	1	0	1	0
7	0	0	0	1	1	0	0	0
8	1	0	1	0	1	1	0	1

⇒ 14A7D6 ~~7818~~ CA18AD . Ans

## ④ Inverse Initial Permutation:-

	1	2	3	4	5	6	7	8
1	40	8	48	16	56	24	64	32
2	39	7	47	15	55	23	63	31
3	38	6	46	14	54	22	62	30
4	37	5	45	13	53	21	61	29
5	36	4	44	12	52	20	60	28
6	35	3	43	11	51	19	59	27
7	34	2	42	10	50	18	58	26
8	33	1	41	9	49	17	57	25



# Inverse Initial Permutations

	1	2	3	4	5	6	7	8
1	0	0	0	1	0	0	1	0
2	0	0	1	1	0	1	0	0
3	0	1	0	1	0	1	1	0
4	1	0	1	0	1	0	1	1
5	1	1	0	0	1	1	0	1
6	0	0	0	1	0	0	1	1
7	0	0	1	0	0	1	0	1
8	0	0	1	1	0	1	1	0

⇒ 1 2 3 4 5 6 A B C D 1 3 2 5 3 6

AP