NUMERICAL PROBLEMS

1. Complete the following table

Units of Labour	Total Product	Average Product	Marginal Product
1	50	–	–
2	90	–	–
3	120	–	–
4	140	–	–
5	150	–	–
6	150	–	–
7	140	–	–
8	120	–	–

2. Complete the following table

Units of Capital	Total Product	Average Product	Marginal Product
1	–	–	20
2	–	–	16
3	–	–	12
4	–	–	8
5	–	–	4
6	–	–	0
7	–	–	–4

3. Determine Law of returns to a factor from the following table

Units of Labour	Total Product	Marginal Product	Average Product
1	20	–	–
2	32	–	–
3	42	–	–
4	48	–	–
5	50	–	–

4. Determine different stages of law of variable proportions from the following table.

Units of Variable input	0	1	2	3	4	5
Output	0	16	40	56	56	40

5. Plot the following information on the graph and determine the relationship between.

(a) Average Product and Marginal Product.

(b) Total Product and Marginal Product.

Also mention various stages of law of variable proportion

Inputs of labour Units	Total Product	Average Product	Marginal Product
1	2	2	2
2	5	2.5	3
3	9	3	4
4	12	3	3
5	14	2.8	2
6	15	2.5	1
7	15	2.14	0
8	14	1.75	–1

6. Identify the various phases about the behaviour of output implied in the law of variable proportion from the following.

Units of Variable Input	1	2	3	4	5	6
Marginal Product (units)	20	25	20	10	0	–10

7. Identify different phases about the behaviour of output implied in the law of variable proportion from the following.

Unit of Variable Input :	0	1	2	3	4	5
Total Product :	0	5	12	18	18	15

8. From the following information identify various stages in the change in total product.

Units of Labour Inputs	1	2	3	4	5	6
Total Products (units)	50	110	150	180	180	150

(4)