LEARNING CURVE ⟨10⟩

1m	2m	3m	4m	5m	6m
1m(U)	–	–	–	5m(K)	–

1 MARK QUESTIONS

(Understanding)

1. Define learning curve.

2. Find the index of learning for 80% learning effect.

3. Define learning curve ratio.

4. Find index of learning for 70% learning effect.

5. Write the learning curve equation.

5 MARK QUESTIONS

(Knowledge)

1. A company requires 100 hours to produce the first 10 units at Rs 15 per hour. The learning curve effect is 80%. Find the total labour cost to produce a total of 160 units?

2. ABC company requires 1000 hours to produce the first 30 engines. If the learning effect is 90%, find the total labour cost at the rate of Rs 20 per hour to produce a total of 120 engines?

3. PQR Company Ltd has observed that a 90% learning effect applies to all labour related costs whenever a new product is taken up for production. The anticipated production is 320 units for the coming year. Production is done in lots of 10 units each and each lot requires 1000 labour hours at Rs 16 per hour. You are requested to compute the total labour hours and labour costs to manufacture 320 units.

4. ABC Company supplies water tankers to the government. The first water tanker takes 2000 labour hours. The government auditors suggests that there should be 90% learning effect. The management expects an order of 16 water tankers in the next year. What will be the total labour hours and the labour cost the company will incur at the rate of Rs 20 per hour?

5. An aircraft manufacturer supplies aircraft engines to different airlines. They completed an initial order of 30 engines involving a total of 6000 direct labour hours at the rate of Rs 20 per hour. They have been asked to bid for a prospective contract for a supply of 90 engines. It is expected that there will be 80% learning effect. Estimate the labour cost for the new order.

6. An engineering company has succeeded in winning an army contract for supplying internal combustion engines of anew type. The prototype constructed to win the contract takes Rs 20,000 labour hours. The government auditors suggest that there should be 90% learning effect. The management agrees with this view. The management expects an order for 7 engines in the next year. What will be labour costs that the firm will incur?

7. An engineering company has 80% learning effect and spends 500 hours for the prototype. Estimate the labour cost of producing 7 engines of new order if the labour cost is Rs 40 per hour.

8. A company requires 500 hours to produce the first 10 units at Rs 25 per hour. The learning curve effect is 90%. Find the total labour cost to produce a total of 80 units?

9. XYZ company requires 1000 hours to produce the first 20 engines. If the learning effect is 80%, find the total labour cost at the rate of Rs 40 per hour to produce a total of 160 engines?

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