

Q-3 → Page 15-10.
Q-5 → Page 15-11.
Q-6 → Page 15-14.
Q-12 → Page 15-26.

Q-14 → Page 15-32.
Q-15 → Page 15-35.
Q-16 → Page 15-37.

Chapter - 15 Simulation

It is a technique of decision making. It is used in highly uncertain conditions. Under this technique, decisions are taken with the help of probability distribution & random numbers. Under this technique, forecasting / decision making is made with the help of Monte Carlo method. Under this method following procedure shall be used.

Step 1:- Define problem & its objective

Step 2:- now develop probability distribution

Step 3:- now determine cumulative probability

Step 4:- now determine range of random numbers on the basis of cumulative probability (inclusive series)

Step 5:- now, simulate given data on the basis of random number & range for random number for specified period.

(Ascending order)

Particulars	Probability	Cumulative probability	Random no. Assigned
X X	0.35	0.35	00-34
Y Y	0.65	1.00	35-99

[Range always depended on (a)]

Format of timing question :-

S. no.	Arrival	Arrival Time	LT Cumulative	Service time	Service Begin time	Service Time	Service end time	Waiting Time	Late Hour
1	-	5	9:05/5	9:05/5	10	9:15/15	-	-	-
2	-	7	9:12/12	9:15/15	5	9:20/20	3	-	-
3	-	30	9:42/42	9:42/42	8	9:50/50	-	22	-

(42-20)

Using simulation for CPM & PERT.

1. Simulate (Each Activity will have its own cumulative probability)
 2. on the basis of simulated value make network
 3. Select CP out of them.
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and its own error range from 0-99.

If demand is in range then take Average to calculate it in individual no.
(Q. 2 - Page 15.80)