



- (a) With example explain in detail about ABC analysis. 7
- (b) A printer has one printing process, one binding machine and manuscripts of six books for publication. The durations required (in a day) for printing and binding the books are given below. 7

Book	1	2	3	4	5	6
Printing time (days)	30	120	50	20	90	110
Binding time (days)	80	100	90	60	30	10

In what order should books be selected so as to minimize the total duration to publish all the books? In how much time will the printing and binding of all the books be completed?

**OR**

- Q-3** (a) A foreman wants to process four different jobs on three machines. The sequence of operations for all the four jobs is shaping-drilling-tapping. The process periods for all the jobs on these machines are given in table. 7

JOB	Processing time (min)		
	shaping	drilling	tapping
1	11	3	15
2	16	8	4
3	8	7	13
4	20	5	8

Find the sequence in which the job should be processed so as to minimize the total time of completion of all the four jobs. Show the optimal schedule on a Gantt chart.

- (b) Explain in detail about linear regression with all the equations and formulas. 7

## SECTION – II

- Q-4** **Attempt the Following questions.** (07)
- List the stages of RFP approach. 1
  - What is the purpose of FDC system in shop floor control? 1
  - What are the steps for describe operation scheduling? 1
  - Define shop floor control system. 1
  - Name the components used to build computer process monitoring system 1
  - Write the key component of BPR. 1
  - Write any two guidelines for ERP implementation. 1

- Q-5** **Attempt all questions** (14)
- With flow chart explain about methodology for ERP implementation. 7
  - Experiments reveal that the weekly demand for a product has a Poisson distribution with a given mean. How will you simulate the demand using a table of random numbers? 7

**OR**

- Explain the forecasting is techniques other than just the statistical analysis of past data. 7
- Discuss assembly line balancing for shop floor control. 7

- Q-6** **Attempt all questions** (14)



- (a) Explain computational procedure for MRP implementation. 7
- (b) Write a note on detailed capacity planning. 7

**OR**

**Q-6**

**Attempt all Questions**

- (a) Write and explain five methods of shop floor data collection system. 7
- (b) The demand for electric motors during the last 10 weeks has been 35, 40, 38, 50, 42, 44, 56, 52, 48, 50. Make the forecast for the 11th week by 3-weekly moving average methods. Prepare a C program for the same. 7

