ASSIGNMENT – 1 – Location Selection and Plant Layout

Theory

(Any two)

1. Which are the major factors affecting plant location?
2. Differentiate - Process layout plan v/s product layout plan.
3. Discuss the factors to be considered for the selection of the site for Thermal Power Plant.
4. List the factors which should be considered for the selection of site for the automobile industry.
5. Define plant lay out. discuss following types of plant layout
   (1) Process layout
   (2) Group technology
   (3) Fixed position layout
   OR Discuss the types of Plant Layout.

Example

1. A company intends to select one of the three locations. All the relevant data for the location are given below:

Cost in Rs. (in Thousands)	Location		
Particulars	A	B	C
Total initial investment	250	325	270
Total Revenue	410	515	360
Cost of raw material	89	100	98
Distribution cost	40	60	30
Utilities Expenses	50	40	25
Wages & salaries	25	30	28

Ans: Site B is the best choice.

ASSIGNMENT – 2 – Production Planning and Control

Theory

(Any two)

1. What is P.P.C.? Give the major objectives of the same.
2. Which are the main functions of production planning and control department?
3. What is line of balancing? discuss in detail assembly line balancing taking suitable example.
4. Discuss different methods of sales forecasting.
5. Explain loading and scheduling with its examples.

Examples

1. N Forecast the demand for the following series by exponential smoothing method. (take $\alpha = 0.3$)

Period	1	2	3	4	5	6	7	8	9	10
Actual demand	10	12	8	11	9	10	15	14	16	15

2. The following data gives the sales of the company for various years. Fit the straight line. Forecast the sales for the year 1997 and 1998.

Year	1989	1990	1991	1992	1993	1994	1995	1996
Sales (‘000)	13	20	20	28	30	32	33	38

ASSIGNMENT – 3 – Productivity and Work Study

Theory (Any three)

1. Describe the ways to increase the industrial productivity.
2. Define Method Study and explain technique with its various steps?
3. Differentiate - Production v/s Productivity.
4. Differentiate between Micro & Macro motion study. Explain in brief various techniques for micro motion study.
5. What is therblig? State the importance of micro motion study.
6. Explain the principles of motion economy.
7. Explain the procedure of work study. State the applications of work study in the industries.

Example

1. Turning gear blanks on center lathe involves the following elements. The stop watch data is given. Assuming the rest and the personal allowances as 13% and contingency allowance of 2%, calculate standard time.

Ele-ment	Description	Observation				
		1	2	3	4	5
1	Pick &place	0.20	1.46	5.22	6.49*	14.25
2	Start machine and approach tool	0.30	1.55	5.30	13.10	14.35
3	Turn diameter	1.05	2.31	6.05	13.84	15.10
4	Withdraw tool and stop machine	1.13	2.38	6.14	13.92	15.17
5	Release part and keep it aside	1.28	2.54*	6.29	14.06	15.32

Foreign elements: * (1) 2.54 to 5.02 taking to another operator (2) 6.49 to 12.98 away for personal need. Rating factor for element 1 is 90%, element 2 and 4 is 110%, element 3 is 100% (auto cycle), element 5 is 95%.

ASSIGNMENT – 4 – Job Evaluation and Wage Plan

Theory (Any two)

1. Define wages and explain in brief various types of incentives.
2. State various methods of job evaluation.
3. Difference between Job Evaluation and Merit Rating.
4. State various methods of job evaluation, discuss in brief.
5. Write short note.
   (i) Qualified worker
   (ii) Point rating method of job evaluation.

ASSIGNMENT – 5 – Industrial Legislation

Theory (Any two)

1. What are factories Act? As per the factories act 1948 what are the major provisions for safety and Health?
2. What is industrial dispute? Discuss the process of resolving the industrial disputes through the Industrial Dispute Act.
3. What is industrial legislation and why it is required?
4. What is industrial legislation? Name the different acts which are helpful in resolving the industrial disputes. Discuss any one act in detail.
5. Explain workmen compensation act 1923.

ASSIGNMENT – 6 – Inspection and Statistical Quality Control

Theory (Any two)

1. What is term S.Q.C.? Explain operating characteristic curves for acceptance sampling.
2. State the important objectives of Quality Control. Which duties are generally assigned to the Quality Control Department?
3. State different types of control charts used for variables and attributes type of characteristics. Explain any one in detail.
4. Explain in brief Six sigma.
5. Describe the quality circles.
6. Discuss – Sampling Plans.
7. Explain following terms
   (1) quality assurance
   (2) quality and inspection
   (3) T. Q. M.

Examples

1. There are 10 samples of shaft taken for inspection. Draw P-chart and state whether the process is under control or not, from the data given as under:

Number of Products	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**
Defective Products	12	4	8	3	7	6	0	8	5	9

2. During the production of Nano Car, 10 cars were inspected and defects in each car were as under. Draw C-chart, control limits and comment about the process:

Nano Car No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Defects in Nano Car	1	3	13	4	2	5	3	3	4	5

ASSIGNMENT – 7 – Entrepreneurship

Theory (Any two)

1. Write characteristics of an entrepreneur.
2. Discuss the different sources for industrial finance.
3. State various government incentives to entrepreneurs.
4. Discuss in brief: Factor affecting entrepreneurial growth.
5. Discuss the incentives which are being given to the entrepreneurs by the government.
6. Define the term entrepreneur and entrepreneurship & differentiate them. Also list out the obstacles in the way of Entrepreneurs' development.