NEW
2015
M B A
2nd Semester Examination
PRODUCTION AND OPERATIONS MANAGEMENT
PAPER—MBA-204

Full Marks : 100

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Write the answers to Questions of each Half in separate books.

1. Answer any *eight* of the following questions : 8×5

(a) What are the elements of Production System ?

(b) State essential features of Production Control.

(c) What are the different system and sub-systems used in Production System ?

(d) Identify the steps an organisation need to follow in selection of plant location.

(e) What is Quality Control ?

(f) Maintenance management is cost saving not cost incurring — Justify by stating the importance of maintenance management.

(g) What is cost of quality ?

(h) Why is time study done ?

(i) Write the use of Analytic Delphi method in process of selection of Plant location.

(j) Name and state the use of different types of conveyors in industries in process of material handling.

(k) Write the use of Deming's PDCA cycle as a powerful tool in Total Quality Management.

(*l*) What is SIMO chart ?

2. Answer any *four* of the following questions : 4×10

(a) What is batch production ? State the characteristics of batch production. 2+8

(b) Establish the relevance of Factor Rating Method in evaluating the alternative locations of a new plant proposed to be set up by an industrial organisation. Table below gives the various factors considered for location decision and factor ratings assigned to each factor based on its importance for location decision and location ratings for the location alternatives based on the merit of each location in each factor considered. Find out the most suitable choice : 5+5

Factor Ratings and Location Ratings for Location Alternatives

Factor	*Factor Rating*	*Location Rating*	
		Location A	*Location B*
1. Tax Advantage	4	8	4
2. Suitability of Labour	3	2	3
3. Proximity to Customers	3	6	5
4. Proximity to Suppliers	5	2	4
5. Adequacy of water	1	3	3
6. Quality of Education	3	2	5
7. Facility of Transport	4	3	4
8. Availability of Power	4	4	6

(c) State the role of quality circle in quality management and establish the Philosophy of quality circle activities. 5+5

(d) State the objectives of Plant maintenance.

A workshop has 20 nos. of identical machines. The failure pattern of the machines is given in the following table :

Estimated time after maintenance alteration (*in month*)	1	2	3	4	5	6
Probability of failure	0.20	0.15	0.15	0.15	0.15	0.20

It costs Rs. 150/- to attend a breakdown machine and rectify the same.

Compute the yearly cost of servicing the breakdown machines. 4+6

(e) Mention the advantages of Workstudy.

Calculate the standard production per shift of 8 hours duration with following data :

Observed time per unit = 5 minutes

Rating factor = 120%

Total allowances = $33\frac{1}{3}\%$ of normal time.

(f) Write short notes on any *two* of the followings : 5+5

(i) Cellular manufacturing layout.

(ii) Statistical Quality Control.

(iii) Method Study.

[*Internal Assessment : 20*]
