

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 7114

Roll No.

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M. B. A.

(Second Semester) Theory Examination, 2010-11

PRODUCTION & OPERATIONS MANAGEMENT

Time : 3 Hours]

[Total Marks : 100

Note : Attempt all questions.

Section-A

1. Attempt all parts : 1×20=20

(a) When new product development process is a case of :

(i) Innovation

(ii) Adaptation

(iii) Diffusion

(iv) Adoption.

- (b) The layout in which the machines are placed according of product manufactured by them is :
- (i) Process layout
 - (ii) Product layout
 - (iii) Fixed layout
 - (iv) - Hybrid layout.
- (c) Which of the following is not a factor while choosing a location ?
- (i) Personal preferences
 - (ii) Water
 - (iii) Fire fighting
 - (iv) None of them.
- (d) Which of the following is type of operations ?
- (i) Job shop
 - (ii) Project
 - (iii) Batch
 - (iv) All of the above.
- (e) The building in which very high roofs are used with ventilators is :
- (i) One and half storey
 - (ii) High bay monitor types
 - (iii) Single storey
 - (iv) Double storey.
- (f) ∇ stands for what

- (g) Which of the following is not a method of work measurement ?
- (i) Work sampling
 - (ii) Stop watch method
 - (iii) Method study
 - (iv) All of the above.
- (h) Which of the following are tools used for forecasting ?
- (i) Correlation and regression
 - (ii) Exponential smoothing
 - (iii) Delphi
 - (iv) All of the above.
- (i) Exponential smoothing is method of forecasting.
- (j) Which of the following is not the chart used in method study ?
- (i) Two handed chart
 - (ii) Man machine chart
 - (iii) SIMO chart
 - (iv) Pie-chart.
- (k) Which of these is type of inventory ?
- (i) Utility inventory
 - (ii) WIP inventory
 - (iii) Finished goods inventory
 - (iv) All of the above.

- (l) Procurement difficulty is bases of which model?
- (i) VED
 - (ii) SDE
 - (iii) FSN
 - (iv) EOQ.
- (m) Expediting is used in :
- (i) Production planning
 - (ii) Production control
 - (iii) Production organizing
 - (iv) Production expediting.
- (n) Assumptions used in EOQ model is true in practical life. (True/False)
- (o) Line of Balance is used for rescheduling of project in terms of manpower. (True/False)
- (p) The case of 100% lot checking is called as
- (q) TQM and traditional approach is different in which feature?
- (i) Reactive and proactive
 - (ii) Preventive and reactive
 - (iii) Whole organization v/s quality control department
 - (iv) All of the above.

- (r) 14 principles of quality was given by :
- (i) Juran
 - (ii) Deming
 - (iii) Kawakita
 - (iv) Ishikawa.
- (s) Mean range chart is (attribute or variable).
- (t) Which of the following is the quality attribute ?
- (i) Functional
 - (ii) Durability
 - (iii) Reliability
 - (iv) All of the above.

Section-B

Attempt any *one* of the following : 30

- (a) XYZ corporation is searching for a new location for establishing new plant. After wide search, the corporation has settled on three locations – A, B and C. After this, the corporation has calculated various cost and the results are as follows :

Factors	Location		
	A (Rs.)	B (Rs.)	C (Rs.)
Land cost	1,00,000	1,50,000	1,25,000
Raw material cost	2 per unit	2 per unit	3 per unit
Power cost	2 per unit	3 per unit	3 per unit
Labour cost	1 per unit	2 per unit	2.50 per unit
Machine cost	2 per unit	4 per unit	2 per unit

Now, the corporation is in fix to resolve the problem :

- (i) Help in organization to find out the best location
 - (ii) What one factor is considered in this case ? What other factors can be considered ?
- (b) Mr. X has joined the XYZ Corporation as a production executive. The company was very good, the salary package was excellent and the people working there were very supportive. Mr. X has completed his engineering this very year and he was lucky to get job in very reputed company like XYZ Corporation.

As is found in maximum cases of first job, Mr. X was confused between the theory and practical. In this case, he was confused with the technology used in production process. In theory, he has studied mainly three production process – job shop, batch and continuous production process.

But in practice, the technology used was quite different and confusing at best. In some cases, the technology used was something similar to

continuous production technology where minimum human resources were used and maximum machines of automatic nature were used.

In other cases, something related to job shop technology was used. In this case, orders were received from the customers and then, the process was started. In this case maximum human resources were used and minimum machines of manual nature were used.

Mr. X is at the best confused in this case.

- (i) What is production technology used in this case?
- (ii) What can the organization do to resolve this problem?

Section-C

Attempt *all* questions.

10×5=50

3. Discuss the plant location theory given by Max Weber. What are the limitations of this theory?

Or

Discuss serialized layout and also explain how it is different from functional layout. Also explain its features and principles of grouping with respect to serialized layout.

4. Explain types of error associated with forecasting. How are they measured ? What can the organization do to minimize these errors ?

Or

Explain these methods of work measurement :

- (a) Stop watch method
- (b) Work sampling.

5. Discuss the ABC model of inventory control. How is this model separate from EOQ model ?

Or

Explain the concept of PPC. Also explain the various functions of PPC. Is production planning done at first or production control is done first ? Explain with reasons.

6. Explain, what is meant by TQM. Also explain the various tools and technique used in TQM.

7. What is meant by maintenance of machines ? Explain various types of maintenance. Is it possible to do maintenance in proactive manner ? Explain with reasons.