



Department of Management Studies

2 Mark Questions and Answers

Unit III : Production Design and Work System

1. What are the factors influencing product design?

- Customer requirements
- Convenience of the operator or user
- Trade off between form and function types of material used
- Work methods & equipments
- Cost/price ratio
- Product quality process capability
- Effect on existing product
- Packaging

2. What is values engineering?

It is concerned with the improvement of design & specification at various stages of product planning & development.

3. What is process planning?

It is concerned with planning the conversion process needed to convert the raw material into finished product.

1. Process design
2. Operation design

4. What is process selection?

It refers to the way of production of goods & services is organized.

5. What is process management?

It refers with the selection of inputs, operation, workflows & methods & transform inputs to output.

6. What is product strategy?

It is an organization process for the selection of resource inputs in to output.

7. What is process strategy?

1. Process focus(carpening, printing, jobshop)
2. Repetive focus(motorcycle, automobiles)
3. Product focus(skilled operators)

8. What is vertical integration?

The amount of production & distribution chain which is brought under the ownership of a firm.

1. Backward integration ex: reliance company
2. Forward integration ex: Indian oil corporation limited

9. What is capital intensity?

Predominant resources used in manufacturing consists of machines & equipment's rather than human labour.

Advantage: product quality superior

Disadvantage: low volume, high capital.

10. What is flexibility?

- Ability to respond fast to the need of customer .
- Ability of the production system to change quickly from production of one product service to another.

11. What is work study?

It is a systematic critical examination of factor affecting productivity for the purpose of improvement. Work study is the body of knowledge concern with the analysis of work method and the standard of proposed work method.

12. What are the objectives of work study?

1. Present of doing and any
2. To measure the work content of the job
3. To measure the one qualified employee time required of possible workman
4. Increase I productivity
5. To improve the operation efficiency.

13. What is simultaneous motion (SIMO) chart?

Movement of the body members of the operator expressed in terms of therbigs on common time scale

14. What is cyclic graph?

Movement of hand by exposing from movement of place light emitted from small bulb attached to the operation figure.

15. What is chromo cyclic graph?

It is the modification of cyclic graph in which recording is made using flash lights

16. What is method study?

It is the systematic recording analyst and critical examination of existing and proposed ways of doing work and development application of easier and new production method.

17. What is meant by Concurrent Engineering or Simultaneous Engineering?

Concurrent engineering, also known as simultaneous engineering, is a non-linear product or project design approach during which all phases of manufacturing operate at the same time - simultaneously.

Both product and process design run in parallel and occur in the same time frame. Product and process are closely coordinated to achieve optimal matching of requirements for effective cost, quality, and delivery

18. What is Enterprise Resource Planning?

A software package developed for optimum use of resources of an enterprise in a planned manner it integrates the entire enterprise in a planned manner it integrates the entire enterprise starting from the supplier to the customer covering logistics, financial & human resources.

19. What is tracking signal?

It is a measurement of how well the forecasting is predicting actual values.

$$\text{Tracking signal} = \frac{\text{running sum of forecast errors}}{\text{Mean absolute deviation}}$$

20. What is meant by Reliability ?

Reliability of data refers to the aspects of data which make it consistent over long periods of time

21. Difference between Correlation coefficient & regression coefficient.:

Correlation coefficient for short **is a** measure of the degree of linear relationship between two variables, usually labeled X and Y. While in regression the emphasis is on predicting one variable from the other, in correlation the emphasis is on the degree to which a linear model may describe the relationship between two variables. In regression the interest is directional, one variable is predicted and the other is the predictor; in correlation the interest is non-directional, the relationship is the critical aspect.

22. What is Product Design?

Product design is the process designers use to blend user needs with business goals to help brands make consistently successful products. Product designers work to optimize the user experience in the solutions they make for their users—and help their brands by making products sustainable for longer-term business needs.