

Q-1 What do you understand by Industrial Management?

A-1 Industrial management is the study about the relationship among employees and management. It deals with the matters related to individual or group of employees and employer and how they work to maximize productive activities.

Q-2 What are the main objectives of industrial management?**A-2 The main objectives of industrial management are**

- A. Maintaining a good relationship between workers and management by protecting their interests.
- B. Giving chance to the workers to participate in management and decision making process.
- C. Taking care of the industrial conflicts and strikes and avoiding them by developing mutual relations among people.
- D. Keeping workers away from all sorts of strikes and lockouts.
- E. Avoiding unnecessary interference in the work of employees, as far as possible and workable, in the matters of relationship between workers and management.

Q-3 What are the responsibilities of a production manager?**A-3 The responsibilities of a production manager can be summarized as follows.**

- A. Making a pre-production plan in order to achieve the production target.
- B. Efficient utilization of the available sources.
- C. Using material handling system efficiently to reduce material handling cost.
- D. Reducing the quality cost by taking proper actions (both corrective and preventive).
- E. Encouraging workers to have a good team spirit among them as it helps in increasing the productivity.
- F. Improving the productivity level of the workers on continuous basis by providing training and guiding them throughout the work.

Q-4 Explain preventive maintenance & corrective maintenance.

A-4 Corrective maintenance can be defined as a maintenance work that is carried out to identify, isolate, and rectify a fault and get back to the operational condition. It involves the maintenance of failed equipment, machine, or asset that can be restored for in-service operations.

Preventive maintenance can be the care and service provided to the equipment by qualified personnel through systematic inspection, detection, and correction of incipient failures either before they occur or before they develop into major defects. It involves tests, measurements, adjustments, and parts replacement, performed specifically to prevent faults from occurring.

Q-5 Explain shutdown maintenance & predictive maintenance.

A-5 Predictive Maintenance is a method where the prediction is made on the service life of important part based on inspection or diagnosis. This is done in order to make an effective use of these parts to the limit of their service life.

Shutdown Maintenance means that people wait until equipment fails and repair it. Such a thing could be used when the equipment failure does not significantly affect the operation or production or generate any significant loss other than repair cost.

Q-6 What is the procedure for taking ISO 9001 2008 and other related standards?

A-6 ISO 9001 2008 is a certification carried out through the following steps :

- A. Filling up the client's information form by the client.
- B. Zonal manager evaluates all the information provided in accordance with the PCMS and prepares the quotation with the letter of registration service agreement and sending it for registration.
- C. After the application for registration is received and checked, the certificate audit contract will be made and sent to the client.
- D. Certification audit is done in two stages
- E. Issue of certificate on successful completion of certification audit.
- F. Surveillance audits at defined interval.
- G. Recertification audit after the expiry date.

Q-7 Can you classify the methods of manufacturing process?

A-7 Classifying the methods of manufacturing process is possible but it depends on the type of industry. These can be as follows:

- A. **Casting Processes** – Sand Casting, Permanent mold casting, die casting, Centrifugal casting
- B. **Primary metal working processes** – Rolling, forging, extrusion, wire drawing
- C. **Shearing and Forming processes** – Punching, blanking, drawing, bending, forming
- D. **Joining processes** – Welding, brazing, soldering, joining
- E. **Machining Processes** – Turning, drilling, milling, grinding
- F. **Surface finishing processes** – Lapping, honing, super finishing.

Q-8 What is Batch production?

A-8 Batch production is a technique that is used in manufacturing of the object created in successive stages over a series of workstations. They also make different batches of products. Job production (one-off production) and flow production (continuous production) is one of the three main production methods.

Q-9 How is batch production different from Job production?

A-9 Job production is a technique where products are individually made and each item is completed along with finishing work before the next one is started. For an example- job production technique is used for designer dresses. **Batch production** is a technique where groups of products are made together. Here they complete the work of each batch before starting with the next set of goods. For example- production of 50 loaves of bread is done in one set and the next 50 is started after they complete the first 50.

Q-10 What is the formula to arrive the cost of a product?

A-10 Formula- Total of direct material cost+ Total of labor cost+ overhead expenses will arrive you to the cost of a product.

Q-11 What are the characteristics of mass and flow production?

A-11 Mass production includes production of items on large scale. It employs very specialized machines and processes and items like metal screws and plastic products are made in mass production.

Flow production involves production of items like air conditioner, TV sets and motorcycles and there is a continuous and steady flow of material.

Various characteristics are :

- A. Possibility of division of labor.
- B. Machines are put according to the sequence of production.
- C. Work flow is balanced.
- D. Time management is possible in different operations.
- E. Proper attention is provided to the handling of procedures, tools and materials.
- F. Flow production is preferred when there is a continuous and regular product demand.
- G. It offers lowest production cost per unit.

Q-12 Explain production planning.

A-12 Production planning is the most important activity for any enterprise because other functional areas of management i.e. financing, marketing, personnel revolve around it. Production planning involves plans related to transforming raw material into finished product.

Production planning is concerned with the fixing of production goals and to estimate the resources which are required to achieve these goals effectively and efficiently without wasting the resources.

Q-13 What is production control?

A-13 Production Control involves activities such as handling materials, parts, assemblies, and sub-assemblies carrying out the process from raw or initial stage to the finished product stage in an organized and efficient manner. It may also include activities such as planning, scheduling, routing, dispatching, storage, etc.

Q-14 What are the essential steps in production control ?

A-14 Essential steps in production control are :

- A. **Routing-** It involves the process of deciding the route of work and the sequence of doing it.

Routing fixes the following in advance- quantity and quality of the product, workers, machines, materials to be used, everything related to manufacturing operations and place of production.

B. Scheduling- It comes after routing in production planning and control. It covers the following - allotment of work, setting manufacturing operations according to priority and fixing time and date for starting and completing the operation.

C. Dispatching- It is concerned with starting the process of production. It provides the necessary authority to start the work. It is based on route-sheets and schedule sheets. Dispatching involves works such as- issue of materials, tools, fixtures; issue of orders, instructions, drawings; maintaining proper records, starting the control procedure and recording the idle time of machines.

D. Follow-up- Follow-up is the last step in production planning and control. It is concerned with the defects, delays, limitations, bottlenecks, loopholes in the production process. It evaluates the actual performance and compares it with expected performance. Follow-up removes these difficulties and allows a smooth production.

Q-15 What is push system?

A-15 Push System deals with the manufacturing system of production that is based on a projected production plan. Here the information flows from management to the market in the same direction in which the materials flow.

Q-16 What is pull system?

A-16 Pull system deals with the manufacturing system of production that is based on actual daily demand. In this the information flows from market to management in a direction opposite to that in push systems.

Q-17 What are the aggregate planning strategies?

A-17 Aggregate planning strategies include :

- A. Making business plans based on the recommendations of demand forecast.
- B. Working backward from the final sales unit to raw materials required.
- C. Annual and quarterly plans are divided into labor, raw material, working capital, etc. that is required over a medium-range period (6 months to 18 months). This process of working out production requirements for a medium range is called aggregate planning.

Q-18 What do you understand by level strategy?

A-18 Level strategy in business provides detail actions that are taken to provide value to customers by achieving above average returns. It is related with the firm's position in the industry that is relative to competitors and to the five forces of competition.

Q-19 What is chase strategy?

A-19 Chase strategy is used by the company to produce only those goods that are required to meet or exactly match the demand for goods.

Q-20 Explain Just-In-Time (JIT).

A-20 Just-In-Time means producing only what is required to increase efficiency and decrease wastage. It is a management philosophy that aims at eliminating waste from every aspect of manufacturing and its related activities.

Q-21 What is Kanban system?

A-21 Kanban is a technique used in a software development process management in a highly economical way. It supports Toyota's "just-in-time" (JIT) production system.

Q-22 What are the advantages of Kanban system?

A-22 Advantages of Kanban system:- It helps in optimizing inventories and prevents it from getting obsolete.

- A. It cuts the storage costs and reduces wastage as it involves the manufacturing of products and

components that are needed.

B. It provides flexibility in production as it doesn't get stuck with excess inventory and even responds to a changing demand.

C. It reduces the total cost of production that includes- prevention of over production, developing flexible work stations, reducing waste, etc.

D. It prevents over production.

E. Helps in balancing demand and supply.

Q-23 What is CPA?

A-23 CPA stands for Critical Path Analysis - a method that includes all the activities that are required to complete a task, estimating the time it will take to complete each activity and the relationships between the activities. It helps in forecasting whether a project can be completed on time without making any delay in the delivery.

Q-24 What are the main steps in Critical Path Analysis?

A-24 Steps involved in the process of Critical Path Analysis :

A. Specifying the individual activities.

B. Determining the sequence of those activities.

C. Drawing a network diagram.

D. Estimating the time for completion of each activity.

E. Identifying the critical path.

F. Updating the CPM diagram.

Q-25 Where Work sampling is applied?

A-25 Work sampling is applied for

A. Estimation of the percentage utilization of machine tools.

B. Estimating the percentage of the time consumed by various job activities.

- C. Finding out time standards, specially where the job is not repetitive and where time study by stop watch method is not possible.

Q-26 What is PERT?

A-26 PERT stands for Program Evaluation and Review Technique and is a widely used management planning and control tool for large-scale projects. It identifies critical activities on which others depend.

Q-27 What is the difference between human relation and industrial relation?

A-27 Human Relations -

- A . It consists of employee and employer.
- B. It includes formulation of objectives, policies, procedure and programs of human resources.
- C. Individual employee can only contact with the immediate superior.
- D. Grievances are resolved to the employee-employer conflicts.

Industrial Relations -

- A . It consists of four important parties namely employees, employer, trade unions and government.
- B. It includes achievement of organizational goals.
- C. Employees are allowed to contact even the top management in a group.
- D. Grievances are solved collectively to avoid conflicts.

Q-28 What is the difference between single ownership and partnership?

A-28 Single ownership involves one person as a business owner that individually owns and operates the business. **Partnership** involves two or more individuals who are entitled to participate in the ownership of a partnership.

Q-29 What is the difference between organizational and intermediate level maintenance?

A-29 Organizational Maintenance is concerned with the swapping of parts and boxes, cleaning and corrosion control, and changing fluids. **Intermediate Maintenance** is concerned with testing and repairing of the boxes, engines, etc.

Q-30 What are the different types of industrial management techniques available?

A-30 The different types of industrial management techniques available are-

A. Workforce Development- Making plans for the management of employees even before you hire them. Job description is pre- defined for each position that you intend to hire for. They monitor employees development and progress based on their role.

B. Growth Management- Management technique includes the management of growth that is characterized by an increase in revenue, employee population, number of locations. Growth techniques are judged by assessing competition, looking at historical data on sales in various target markets, projecting changes in target markets and comparing available resources.

C. Personnel Management- Employees performance depends on the kind of motivation they get from their managers. So, managers use several different techniques to motivate their employees to improve production and achieve company goals.