Top 20 Manufacturing Production Interview Questions & Answers

1) Explain the term BOM?

BOM stands for Bill Of Materials; it is a list of item or parts that makeup a product assembly. For example, a lawn mower requires a handle assembly, metal deck assembly, a control assembly, motor and blade assembly.

2) Explain what is DCR?

DCR stands for Document Change Request, a change request which addresses about a problem with a document, SOP (standard operating procedure) or specification and propose a change to fix it.

3) Explain what is Kanban?

Kanban is scheduling system which advises manufacturers about how much to produce, what to produce and when to produce. In this system, inventory is re-filled only when visual cues like an empty bin or cart is seen.

4) Explain what is MES?

MES stands for a system that manages and controls the production on the factory floor with the motive of reducing the total time required to produce an order.
5) **Explain what is Six Sigma?**

Six sigma is a data-driven methodology and approach for eliminating defects in any process from manufacturing to transactional and from product to service.

6) **What is the difference between lean manufacturing and JIT (Just-in-Time) Manufacturing?**

- **Lean Manufacturing:** It takes the concept of JIT and re-examines it from the customer point of view. Anything that is produced should add something of valuable to the customer's requirement. For example, if you are making stereo system for a luxury car, you will think from the customer point of view like sound quality, durability, space occupancy, loud or medium sound, etc.

- **JIT (Just-in-Time):** This methodology is designed to ensure that a product or part would arrive just in time to be used. This technique saves the cost behind the unused inventory, and eliminating the need of piling up inventory.

7) **Explain what is QMS?**

QMS stands for Quality Management System; it documents all necessary information about company's design and operational controls, including issue reporting, monitoring, continuous improvement and training, to make sure that company delivers continuous product.

8) **Explain what is batch production?**
Batch production is a manufacturing technique, where components or goods are produced in groups and not in a continuous stream. This methodology is mainly used when similar items are produced together.

9) **What is the challenge in manufacturing products?**

Main challenge in manufacturing is to develop better production processes, ensure the right material and component supplies at the least cost, decrease production time, eliminate wastage and maintain quality in the final product.

10) **List out the factors that can affect the manufacturing process?**

The factors affect the manufacturing process are

- **Supplies:** A well-managed supply and inventory is very crucial in order to run manufacturing process smoothly. The manufacturers must brace themselves up and ready to overcome any unexpected delays in supplies due to weather or transportation hindrance.
- **Equipment:** Equipment’s are the central unit for any manufacturing plant; regular maintenance are utmost necessary to avoid a breakdown in the middle of production. Identify the means of improving the efficiency of every part of the equipment.
- **Factory Overhead:** Without power supply, manufacturing is not possible. Always keep plan B ready in case of temporary power cut down.
- **Special Parts:** Replacing any special spare parts with different specification may slow down your production, so before ordering any special spare parts ensure it fits your demand especially if it is imported from long distance.
- **Work Force:** Human resource is equally important and plays a major role in manufacturing unit.

11) **Define the term “factory overhead”?**

During the manufacturing process, whatever the cost is incurred during the process is referred as “factory overhead”, excluding the cost of materials and direct labours.

12) **List out some of the examples of factory overhead?**

Following are the overheads a production manufacturing engineer has to consider:

- Factory rent
- Utilities used in the unit
- Costs behind equipment set up
- Costs behind equipment maintenance
- Production unit supplies
- Insurance covered on equipment’s and production facilities
- Fringe benefits
- Depreciation
• QA Salaries
• Property taxes on manufacturing facilities
• Material management salaries

13) Explain how to supervise in a manufacturing unit?

Supervising a manufacturing process includes attending to the individual phases of the production. Also, manufacturing supervisor should have a close eye on the inventory that going to be used.

• Step 1: Keep the records of different phases of manufacturing also analyse whether the amount of product produced by the crew is enough to meet the demand
• Step 2: Look for the bottlenecks in the unit and see how you can eliminate it
• Step 3: Keep the track of inventory and try to reduce the liquid capital used after unused material
• Step 4: Examine the final goods to determine whether they meet the company’s quality standards.

14) Explain how can you calculate manufacturing work in progress?

Manufacturing work in progress is when manufacturing firm transforms material into the work in process which includes raw material, labour and factory overhead. You can calculate all the below factors to know the costing for the manufacturing work in progress.

• labour costs
• Raw material inventory costs
• Production cost
• Cost of ending work in process for the accounting period

15) Explain what is product report?

A product report is a general term used to represent design, manufacturing, quality, sales and repair information about a product.

16) Explain what is RMA?

RMA stands for Return Material Authorization; it is a financial and work order tracking used to determine a returned item’s origination. It is often used in a transaction where a customer returns goods to the manufacturer for replacement or repair purpose.

17) Explain what is SCAR (Supplier Corrective Action Request)?

Manufacturers are highly dependent on their raw material suppliers, to communicate with them effectively SCAR is used. It is a change request that mentions the issues with the process or material from a supplier and ask for a resolution. It sometimes also includes the details about how the complaint should be addressed.
18) What are the softwares which can be useful in manufacturing unit?

In manufacturing unit, software that can be useful are **Manufacturing ERP** and **Material Management**. Some of the companies that provide the manufacturing software solution are SAP, Oracle ERP system, etc.

19) Explain what is GMP?

GMP is a good manufacturing practice and is recognized worldwide for the control and management of manufacturing and quality control testing of foods, medical devices and pharmaceutical products.

20) Explain what are the approach used in manufacturing for QA?

For QA in manufacturing techniques used are

- **Acceptance sampling**: In this testing, a random sample is picked from the batch rather than testing the whole batch.
- **Statistical process control**: Through the use of control charts and data collected for the samples at the various stages of production a manufacturing product can be monitored.
- **Troubleshooting studies**: At the end of the line product, a trouble-shooting study can be carried out to see whether the changes in the inputs are associated with the output variables.