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Mumbai University

MCO SAMPLE (Total No. of Questions 25)

MMS Semester 3 (Ops.)

Subject: Manufacturing Resource Planning & Control

ATKT Exams to be held in Oct 2020

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Q1. A PUSH production method used to provide steady supply and stock for retailers-

1. MTO
2. ATO
3. CTO
4. **MTS

Q2. Capacity required with respect to machine is given by the formula-

1. $\frac{\text{demand} * \text{machine hrs. required per unit}}{\text{machine efficiency}}$
2. $\frac{\text{no. of days} * \text{no. of working hrs. per day} * \text{no. of machines} * \text{time lost in breakdown \& maintenance}}{\text{no. of days} * \text{no. of working hrs. per day} * \text{no. of workers} * \text{absenteeism}}$
3. $\frac{\text{capacity put to use}}{\text{total capacity available}}$

Q3. Space Utilization Index is equals to

1. kg-m of job movement for each product
2. $\frac{\text{**minimum space required}}{\text{Actual space utilized}}$
3. no. and quantum of index depth movement
4. percent to total capacity

Q4. Capacity planning framework changes with time horizon. Medium time horizon emphasis is on

1. **Matching the supply with demand
2. Maximize capacity through efficient use of resources
3. Minimize waste from the system
4. Both a and b

Q5. A product is manufactured using 5 stage process A, B, C, D, E with total time 20, 30, 15, 12, 6 minutes respectively having one machine at each stage. If the shop work with an effective available time of 450 minutes, what is the production capacity of Stage E?

1. Production capacity =22.5 units

2. Production capacity =30 units
3. ** Production capacity =75 units
4. Production capacity =37.5 units

Q6. Which of the following facility layout is best suited for the intermittent type of production (which as we know is a method of manufacturing several different products using the same production line)

1. Product layout
2. ** Process layout
3. Fixed position layout
4. Cellular layout

Q7. Select example of mid variety and mid volume design of manufacturing process-

1. Airports
2. Aircraft manufacturing
3. ** Pharma
4. Consumer non-durables

Q8. Process layout is –

1. The order in which the resources are placed are exactly in the way the manufacturing process is dictated by the product
2. Applicable when the product is bulky, difficult to move
3. Parts are grouped in a family, which could all be processed in a cell
4. ** the arrangement of resources based on functional characteristics of resources

Q9. High variety, too many number of stages and jumbled flow of operation results in –

1. Low complexity
2. Moderate complexity
3. It will not affect the complexity of operation
4. ** High complexity

Q10. A product is manufactured using 5 stage process A, B, C, D, E with total time 18, 12, 32, 10, 25 minutes respectively. What is the TPUT; and identify the bottleneck of manufacturing process.

1. TPUT=32 min and bottleneck = D
2. ** TPUT=97 min and bottleneck = C
3. TPUT=57 min and bottleneck = E
4. TPUT=42 min and bottleneck = B

Q11. Capacity planning framework consist of-

1. Estimate the capacity requirement of the planning horizon
2. Identify the quantum of capacity to be augmented
3. Select an appropriate alternative for capacity augmentation
4. ** All of the above

Q12. What does MPS Focus on:

1. Work in progress
2. **Finished goods
3. Raw material
4. Inventory management

Q13. Which of the following is an input of material requirement planning?

1. Master Planning Schedule
2. Bill of Material
3. Work Order
4. **All of the above

Q14. A schedule is satisfactory when

1. Capacity is greater than the production plan
2. It doesn't specify to the plant when to start production
3. **Capacity is consistent with the production plan
4. It doesn't specify to the plant when to stop production

Q15. In the _____ environment, many end items can be made from combinations of basic components and subassemblies:

1. Made-to-Stock
2. Made-to-order
3. **Assemble -to-Order
4. Engineer-to order

Q16. What does not contribute to increase in production plant capacity

1. Purchase of additional Equipment
2. Scheduled machine maintenance
3. Larger Production lot sizes
4. **Increasing the backlog before each machine

Q17. ERP is a

1. List of raw materials, sub-assemblies, intermediate assemblies, sub-components, parts and the quantities of each needed to manufacture an end product.
2. Method to determine quantity and timing of dependent demand item.
3. Method to depict dependency of various manufacturing process.
4. **Method of effective planning and control of all resources needed to take, make, ship and account for customer orders in manufacturing, distribution or service company.

Q18. Following is the basic module of ERP

1. Customer Relation
2. **Manufacturing and Resource Planning
3. Distribution
4. Logistics

Q19. ERP is an enhancement of

1. **MRP-II with added functions of Finance, Distribution and HR Management integrated to handle the global business.
2. MRP-II with added functions of Finance Management integrated to handle the global business.
3. MRP-II with added functions of Distribution and Logistics integrated to handle the global business.
4. MRP-I with added functions of Finance, Distribution and HR Management integrated to handle the global business.

Q20. In SAP R/3, 3 stands for

1. **3 tier-Database, Application Server, Client Server
2. 3 tier- EDI, Data Warehousing, Data Mining
3. 3 tier-Data Migration, BPR, Testing
4. 3 tier-GUI, RDBM, CASE

Q21. Which of the following is not type of inventory

1. **Machine installed & operating in manufacturing plant
2. Jobs being processed on machine and / or lying in shop floor for processing
3. Finished Goods in stock
4. Spare Parts in Spare Shop

Q22. Which of the following is true in case of cycle counting?

1. Timely detection and correction of inaccurate records
2. Elimination of lost production time due to unexpected stock outs
3. Structured approach using employees trained in cycle counting
4. **All of the above

Q23. In EOQ Model, cost of insurance and taxes are included in

1. Cost of Shortages
2. Cost of Ordering

- 3. ****Inventory Carrying Cost**
- 4. **Set up Cost**

Q24. The order cost of an inventory is INR 500 with an annual carrying cost of INR 10 per unit. The Economic Order Quantity for an annual demand of 2500 units is

- 1. 400
- 2. 600
- 3. 200
- 4. ****500**

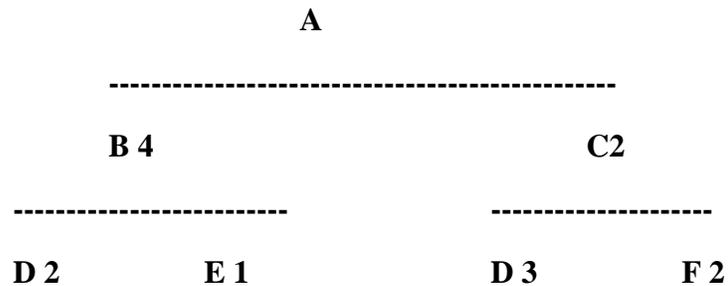
Q25. The product structure of product A is as follows:

Product A has two assemblies in it named B and C; 4 nos. of B and 2 nos. of C make the product A

Assembly B has the components as follows: 2 nos. of D; 1 no. of E

Assembly C has the components as follows: 3 nos. of D and 2 nos. of F

If you have to make 10 units of product A, how many of pieces of component D are required?



- 1. 80 nos.
- 2. 60 nos.
- 3. 120 nos.
- 4. ****140 nos.**