VPM's

DR VN BRIMS, Thane

Programme: MMS (2023-25)

First Semester Regular Examination December 2023

Course Name	Operations Management	Course Code	C104
Roll No.		Marks	60
Total No. of Questions	6	Duration	3 Hours
Total No. of printed pages	3	Date	26.12.2023

Course Outcome Statements:

- CO1. RECALL basic concepts of operations management and cite its evolution
- **CO2.** ASSOCIATE the concepts of operations management and connect with business scenarios
- CO3. APPLY basic principles of operations management in production and operation functions
- CO4. EXAMINE the problems related to operations management in day-to-day functioning
- CO5. RECOMMEND tentative solutions to the problems related to operations management

Instructions: -		Marks	\mathbf{BL}	CO
Q. No 1 (All Questions are Compulsory)			İ	
Q. No.	Questions			
Q. 1	Case/Case-let Study			
	Dynamic Strategies at AMD Electronics: The Tale of Level and			
	Chase in Production Planning			
	In the bustling world of electronics manufacturing, AMD Electronics			
	found itself at the crossroads of operational decision-making. Faced			
	with varying demand for their cutting-edge gadgets, the company had			
	to navigate the delicate balance between maintaining a steady			
	production pace and adapting to market fluctuations.			
	In the initial phase, AMD Electronics embraced the Level Strategy.			
	With consistent demand projected over the next six months, the			
	company decided to maintain a stable production rate. This approach			
	allowed them to avoid the pitfalls of overproducing during peak			
	periods or facing idle capacities during lulls in demand.			
	As the production lines hummed along at a steady pace, employees			
	appreciated the predictability. The workforce could plan their			
	schedules with confidence, and the manufacturing floor exhibited a			
	harmonious rhythm. However, challenges arose when unexpected			
	spikes in demand occurred. The Level Strategy, while promoting			
	stability, occasionally led to backlogs and delayed deliveries during			
	peak seasons.			
	With the holiday season approaching, AMD Electronics shifted gears			
	and adopted the Chase Strategy. Facing a surge in customer orders for			
	their latest gadget, the company decided to align production precisely			
	with demand. Temporary workers were brought in, and overtime hours			
	were authorized to meet the increased workload.			
	The manufacturing floor buzzed with heightened activity, as the			
	company dynamically adjusted its resources to match the intensified			
	demand. This flexibility allowed AMD Electronics to fulfil orders			
	promptly, preventing potential bottlenecks and ensuring customer			
	satisfaction during the peak period.			

The Level Strategy had provided stability and a sense of routine, but it struggled to accommodate sudden demand spikes efficiently. In contrast, the Chase Strategy, while agile and responsive, required careful resource planning to avoid unnecessary costs during periods of low demand. AMD Electronics, reflecting on this dual approach, decided that a blend of both strategies would be the key to future success. By adopting a hybrid strategy that incorporated elements of both level and chase approaches, the company aimed to strike the perfect balance between stability and adaptability, ensuring a mimble response to market dynamics while maintaining operational efficiency. This strategic evolution positioned AMD Electronics as a versatile player in the ever-changing landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. G.2. Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below. Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. D. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 1 B (2) 1 B (2) 2 D (3) E (2) 1 E (2) 1 CO5			m v 10 11 11 11 11 11 11 11 11 11 11 11 11			
contrast, the Chase Strategy, while agile and responsive, required careful resource planning to avoid unnecessary costs during periods of low demand. AMD Electronics, reflecting on this dual approach, decided that a blend of both strategies would be the key to future success. By adopting a hybrid strategy that incorporated elements of both level and chase approaches, the company aimed to strike the perfect balance between stability and adaptability, ensuring a nimble response to market dynamics while maintaining operational efficiency. This strategic evolution positioned AMD Electronics as a versatile player in the everchanging landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below. Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. D. Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 1 B (2)			The Level Strategy had provided stability and a sense of routine, but it			
careful resource planning to avoid unnecessary costs during periods of low demand. AMD Electronics, reflecting on this dual approach, decided that a blend of both strategies would be the key to future success. By adopting a hybrid strategy that incorporated elements of both level and chase approaches, the company aimed to strike the perfect balance between stability and adaptability, ensuring a nimble response to market dynamics while maintaining operational efficiency. This strategic evolution positioned AMD Electronics as a versatile player in the everchanging landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase productions strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q. 2			struggled to accommodate sudden demand spikes efficiently. In			
low demand. AMD Electronics, reflecting on this dual approach, decided that a blend of both strategies would be the key to future success. By adopting a hybrid strategy that incorporated elements of both level and chase approaches, the company aimed to strike the perfect balance between stability and adaptability, ensuring a nimble response to market dynamics while maintaining operational efficiency. This strategic evolution positioned AMD Electronics as a versatile player in the everchanging landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q. 2			contrast, the Chase Strategy, while agile and responsive, required			
low demand. AMD Electronics, reflecting on this dual approach, decided that a blend of both strategies would be the key to future success. By adopting a hybrid strategy that incorporated elements of both level and chase approaches, the company aimed to strike the perfect balance between stability and adaptability, ensuring a nimble response to market dynamics while maintaining operational efficiency. This strategic evolution positioned AMD Electronics as a versatile player in the everchanging landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q. 2			careful resource planning to avoid unnecessary costs during periods of			
AMD Electronics, reflecting on this dual approach, decided that a blend of both strategies would be the key to future success. By adopting a hybrid strategy that incorporated elements of both level and chase approaches, the company aimed to strike the perfect balance between stability and adaptability, ensuring a nimble response to market dynamics while maintaining operational efficiency. This strategic evolution positioned AMD Electronics as a versatile player in the everchanging landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will chable to meet demand. Q.2 Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q.3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 5 CO5						
blend of both strategies would be the key to future success. By adopting a hybrid strategy that incorporated elements of both level and chase approaches, the company aimed to strike the perfect balance between stability and adaptability, ensuring a nimble response to market dynamics while maintaining operational efficiency. This strategic evolution positioned AMD Electronics as a versatile player in the everchanging landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q.2 Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warchouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q.3 Answer Any one from the following. a. Take an example of your choice and amalyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level O Answer Any one From the following. 1 B (2) F (2) F (2) F (2)						
a hybrid strategy that incorporated elements of both level and chase approaches, the company aimed to strike the perfect balance between stability and adaptability, ensuring a nimble response to market dynamics while maintaining operational efficiency. This strategic evolution positioned AMD Electronics as a versatile player in the everchanging landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q.2 Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below. Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 0 X Level 4 CO4 Level 4 CO4 Level 5 CO5						
approaches, the company aimed to strike the perfect balance between stability and adaptability, ensuring a nimble response to market dynamics while maintaining operational efficiency. This strategic evolution positioned AMD Electronics as a versatile player in the everchanging landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q. 2						
stability and adaptability, ensuring a nimble response to market dynamics while maintaining operational efficiency. This strategic evolution positioned AMD Electronics as a versatile player in the everchanging landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q. 2 Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 4 CO4						
dynamics while maintaining operational efficiency. This strategic evolution positioned AMD Electronics as a versatile player in the everchanging landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q. 2 Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 4 CO4 Level 5 CO5						
evolution positioned AMD Electronics as a versatile player in the everchanging landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q. 2			stability and adaptability, ensuring a nimble response to market			
changing landscape of electronics manufacturing. a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 0 X Level 4 CO4 Level 4 CO4 Level 4 CO4 Level 5 CO5			dynamics while maintaining operational efficiency. This strategic			
a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q. 2 Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B:(80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 4 CO4			evolution positioned AMD Electronics as a versatile player in the ever-			
a. Considering the case study of AMD Electronics and their adoption of Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q. 2 Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B:(80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 4 CO4			changing landscape of electronics manufacturing.			
Level and Chase production strategies, Analyze the strengths and weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q. 2		a.			Level 4	CO4
weaknesses of both strategies. b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Q. 2 Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 4 CO4 Level 5 CO5				6		
b. Based on your understanding, determine appropriate strategy which will enable to meet demand. Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 4 CO4 Level 5 CO5				v		
will enable to meet demand. Q. 2 Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 4 CO4 Level 5 CO5		L.			T arrel 5	COF
Answer Any one from the following. a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B:(80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 5 CO5 Level 5 CO5 Level 6 CO4		D.		6	Level 5	COS
a. Explain the concept of work study and share an example which evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 4 CO4 Level 5 CO5						
evaluate work study method for enhancing efficiency and productivity. b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 0 X CO4 Level 4 CO4 CO4	Q. 2					
b. Consider a distribution network with three potential retailers' locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km), The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 0 X Level 4 CO4		a.		6	Level 5	CO5
locations: A, B, and C. The coordinates (in miles) of each location are as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 0 A B (2) C 6 CO4			evaluate work study method for enhancing efficiency and productivity.	•		
as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 1 B (2) C 6 CO4		b.	Consider a distribution network with three potential retailers'		Level 5	CO5
as follows: Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 1 B (2) C 6 CO4			locations: A, B, and C. The coordinates (in miles) of each location are			
Retailer A: (20 Km, 50 km), Retailer B: (80km, 30km) Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 1 B (2) A (C) A (C) CO4			as follows:			
Retailer C: (60 km, 70 km). The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 CO4 Level 4 CO4 Level 4 CO4						
The volumes to be transferred to each retailer from warehouse is given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 4 CO4						
given below: Retailer A: 5000 Qty, Retailer B: 3000 Qty, and Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 Level 4 CO4 Level 4 CO4						
Retailer C: 2000 Qty. Determine the centre of gravity for this distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 4 CO4 CO4 Level 4 CO4						
distribution network to locate the warehouse. Q. 3 Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 0 X 6 6 6 6 6 6 1 8						
Answer Any one from the following. a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 0 X 6 6 CO4						
a. Take an example of your choice and analyse how Juran's Trilogy can be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level O X 6 6 CO4 CO4						
be applied to address the challenges and improvements in the quality of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level O X 6 1 B (2) 6	Q. 3					
of the manufacturing processes. b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level O X 6 1 B (2) C 6		a.			Level 4	CO4
b. Analyze the given the product structure tree and the inventory shown below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level 0			be applied to address the challenges and improvements in the quality	6		
below, list the net requirements for B, C, D, E and F to produce 10 units of X. Level O A B (2) 6 2 D (3) E E (2) F (2)			of the manufacturing processes.			
units of X. Level O		b.	Analyze the given the product structure tree and the inventory shown		Level 4	CO4
1 B(2) C 2 D(3) E E(2) F(2)			below, list the net requirements for B, C, D, E and F to produce 10			
1 B(2) C C 2 D(3) E E(2) F(2)						
1 B(2) C 2 D(3) E E(2) F(2)						
1 B(2) C 2 D(3) E E(2) F(2)			1			
1 B(2) C 2 D(3) E E(2) F(2)						
1 B(2) C 2 D(3) E E(2) F(2)				6		
			1 B (2) C	U		
3 E (4)			2 D (3) E E (2) F (2)			
3 E (4)						
			3 E (4)			

Q. 4		Answer Any two from the following.			
	a.	Construct a detailed process flowchart outlining the steps involved in		Level 3	CO3
		the order fulfilment process, starting from the customer placing an	6		
		order to a delivery of the product for e-commerce company.			
	b.	Given the following details for a product solve the problem:		Level 3	CO3
		Annual demand: 10,000 units			
		• Cost per order (ordering cost): \$100			
		Holding/ Carrying Cost per unit per year: \$2	6		
		Calculate the Economic Order Quantity (EOQ), the number of orders	U		
		per year, and the total annual inventory cost. Provide a step-by-step			
		solution, and justify how optimizing the order quantity influences the			
		overall inventory costs.			
	c.	A book binder has one printing press, one binding machine and		Level 3	CO3
		manuscripts of 7 different books. The times required for performing			
		printing and binding operations for different books are shown below.			
		Book 1 2 3 4 5 6 7			
		Printing 20 90 80 20 120 15 65			
		time (hours)			
		Binding 25 60 75 30 90 35 50	6		
		time			
		(hours)			
		Identify the optimum sequence of processing of books in order to			
		minimize the total time required to bring out all the books. Also,			
		Identify elapsed time and total idle time for book printing and binding			
0.7		process.			
Q. 5	_	Answer Any two from the following.		T12	CO2
	a.	Explain batch production and continuous production systems on		Level 2	CO2
		following points: 1. Volume			
		2. Variety	6		
		3. Flow			
		and explain with an example.			
	b.	Explain product layout and process layout with an example.	6	Level 2	CO2
	c.	Explain the key benefits that organizations can derive from	6	Level 2	CO2
		implementing value engineering.			
Q. 6		Answer Any two from the following.			
	a.	Recall the difference between goods from services.	6	Level 1	CO1
	b.	Define the term "transformation process" in operations management.		Level 1	CO1
		List two examples of transformation processes in the service industry.	6		
	c.	List the importance of ISO 9001:2015	6	Level 1	CO1
	l			1	<u> </u>