

## **MBSC 3001**

M.B.A. DEGREE EXAMINATION, JANUARY 2021.

Third Semester

Operation and Supply Chain Management

**PRODUCTION AND OPERATION MANAGEMENT**

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions.

1. Differentiate between product and service.
2. State the functions of Product design.
3. Categories the different process types in service.
4. List the features of continuous flow production.
5. Identify the goal of Aggregate Planning?
6. Brief the steps in method study
7. Discuss the various steps in production planning and control.
8. List the major approaches organisations use to deal with breakdowns.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

9. Briefly describe the transformation process model for cement manufacturing company.
10. Every product goes through a number of stages before being introduced in the market. Critically evaluate the stages of the new product development process.
11. Compare and contrast the various process types in manufacturing with suitable examples.
12. Enumerate the factors that you will consider for selecting a location for automobile assembly plant.
13. Bring out the managerial significance of aggregate planning and also explain the various aggregate planning strategies.
14. Categories and explain the basic quality tools that an organization used for quality improvement?
15. Explain the concept of
  - (a) TQM Concept
  - (b) Six Sigma
16. Discuss the relationship between preventive maintenance and quality.

PART C — (1 × 20 = 20 marks)

Case Study-Compulsory

17. An operator in the fruit packing plant was clocked by stopwatch over 5 activity cycles. The observed times for the 3 activities are given below. Observed times are all recorded in minutes.

Activity	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Performance Rating (%)
Get a box	0.82	0.83	0.84	0.80	0.81	130
Pack fruits in a box	0.44	0.42	0.46	0.40	0.41	110
Set box aside	0.71	0.67	0.69	0.71	0.68	115

The allowance for this type of work is 15% of the total time.

- (a) Calculate the normal time for each activity.
- (b) Calculate the standard time for the total operation.

## **MBSC 3002**

M.B.A. DEGREE EXAMINATION, JANUARY 2021.

Third Semester/Second Year

Operation and Supply Chain Management

LOGISTICS MANAGEMENT

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions out of Eight questions.

1. Logistics is a subset of supply chain – Substantiate.
2. Briefly describe the role of safety inventory in logistic management.
3. Write short note on Industrial Packaging.
4. Mention the features of ocean carrier management.
5. Identify the factors that considered for evaluating and selecting transportation system.
6. Elaborate the advantages of containerization.
7. In transportation system, how carrier and shipper differ?
8. State the benefits of RFID in Logistics.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions out of Eight questions.

9. Discuss how the company gains competitive advantage through logistics through Michael porter value chain.
10. Briefly describe the functions and types of warehouses in Automobile industry.
11. Discuss the various modes of transportation with their advantages and disadvantages.
12. "Transportation economics and pricing are concerned with factors that drive cost" - Discuss.
13. How is a tracking useful in logistics companies? Illustrate with suitable examples.
14. Enumerate the various issues faced by the logistics firm while managing Import/Export Logistics.
15. Categorize and describe the various strategic channel intermediaries.
16. Enumerate the different forces that shapes global logistics.

PART C — (1 × 20 = 20 marks)

Case Study – Compulsory

17. IKEA is the world's largest home furnishing retailer with more than 411 locations across 49 countries has committed to customer service. All IKEA locations have an in-store logistics manager. The in-house logistics managers collect the Point of Sale (POS) data regarding sales using the central inventory management software. The inventory system also notifies deviations if any. IKEA also uses separate high-flow and low-flow warehouse facilities very efficiently. Products that have low demand are stocked in low-flow warehouses where the processes are manual. In high-flow warehouses, high demand products are stocked. Storage and retrieval processes are highly automated in high-flow warehouses. Illustrate this case and describe how IKEA are working absolutely with more efficiency and high responsiveness in their logistic operation.
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## **MBSC 3003**

M.B.A. DEGREE EXAMINATION, JANUARY 2021.

Third Semester

Business Administration

### **SUPPLY CHAIN MANAGEMENT**

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions.

1. Explain the decision phases of supply chain management.
2. Identify the major supply chain drivers.
3. Explain how to manage supply chain cycle inventory.
4. Identify the factors influencing supply chain network decisions.
5. Explain the steps in supplier selection
6. Enlist the role of distribution in supply chain.
7. What is 3PL? How does it differ from 4PL?
8. Differentiate logistics and supply chain management.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions

9. Discuss the role of ERP in supply chain integration in detail.
10. Elucidate the impact of Bullwhip effect in supply chain management.
11. Enumerate aggregation and continuous replenishment policies in detail.
12. Elucidate the step's in demand planning and supply chain planning.
13. Describe collaborative planning, forecasting and replenishment (CPFR) technique in detail.
14. Discuss the SCOR model in supply chain management.
15. Enumerate the Functions of supply chain network.
16. What is safety inventory in supply? How do you calculate safety stock level?

PART C — (1 × 20 = 20 marks)

Compulsory

17. Zebra Supports Philips Roll out Largest RFID Supply Chain Project in Global Semiconductor Industry Challenge.



Philips Semiconductors is one amongst top ten suppliers of semiconductors and Occupies one of top three positions in RFID technology market. It has its manufacturing facility in Taiwan and its distribution centre in Hong Kong which alone ships and keeps tracks of millions of wafer cases and packages every year. In order to ensure its warehouse efficiency the company decided to operate at most efficient levels of inventory turns, reduced lead time and higher reliability in deliveries.

The company thought of the most modern RFID technology to bring about these desired improvements in its supply chain. As a market leader in RFID, the company was dealing in business solutions ever since 1988. The Chief Operating Officer decided to use the technology to its own advantage as the company has been offering solutions for a number of years with good expertise. Carrying out RFID cost in supply chain setting was still high, and a lot of time was required for achieving benefits, majority of the vendors were waiting for the prices to come down and as a result were following a wait-and-see approach. The company was well aware of RFID advantages for achieving better levels of customer satisfaction.

For Philips it was a worthwhile plan as it could have brought maximum returns on investment and serve as a testimonial how RFID can be

successfully applied in a huge supply chain setting. Philips first tried to find out the areas which benefit the most from RFID initiative. The company decided to carry out a preliminary rollout in Kaohsiung Taiwan manufacturing facility and Hong Kong and pinpointed several processes that can be improved in both the facilities. Philips then went on to develop a future course of action for its processes to manage the transition stage to RFID enabled practices in the supply chain. Since RFID is directed to achieving operational efficiencies, therefore the company started quickly with these areas.

Discuss the following:

- (a) Relationship between Philips and zebra technologies
- (b) Return on investments
- (c) Supply chain model
- (d) Challenges
- (e) Key result areas
- (f) Replenishment policies.

## **MBSC 3004**

M.B.A. DEGREE EXAMINATION, JANUARY 2021.

Third Semester

Operations and Supply chain Management

**MATERIALS AND STORE MANAGEMENT**

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions out of EIGHT questions.

All questions carry equal marks.

1. Explain key objectives of materials management.
2. Discuss the need for stock in the business.
3. How to control the slow moving stocks?
4. Enumerate the function in determining stock range.
5. Explain how to cope with uncertainty in achieving service levels.

6. Compare stores efficiency and effectiveness.
7. Discuss the safety measures followed in the stores.
8. In what way supplies helps in stocks control? Explain.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions out of EIGHT questions.

All questions carry equal marks.

9. Explain the Codification of stock in stores of business organization.
10. Discuss how to minimize stock and control methods of stock.
11. Explain the forecasting techniques relating to demand and lead times of stock.
12. Elaborate how to handle the stock at independent demand and dependent demand situations.
13. Classify the commodity types stored and state their characteristics.
14. State and explain the factors to be considered while locating the store room.

15. Give a note on distribution requirement planning.
16. Suggest any two operational research techniques applied in the store management.

PART C — (1 × 20 = 20 marks)

Compulsory

17. “Reduction in storage space and handling cost ensures maximum return on capital” will you support the statement? Give justification for your answer.
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## **MBSC 3005**

M.B.A. DEGREE EXAMINATION, JANUARY 2021.

Third Semester/Second Year

Operation and Supply Chain Management

INFORMATION SYSTEM IN SUPPLY CHAIN  
MANAGEMENT

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions out of Eight questions.

1. How can Web service help a company to communicate with its suppliers and customers?
2. Mention the reason for companies failed in IT initiative in supply chain?
3. Compare RFID and Barcode.
4. Identify the specific technologies that may be utilized for an effective supply chain management measurement and reporting.

5. Briefly discuss how do you manage relationships with suppliers?
6. State the challenges faced by company in implementing RFID in SCM.
7. Enlist the limitations of ERP to address supply chain management requirements.
8. Point out the role of supply chain in E-business.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions out of Eight questions.

9. Enlist and discuss the functional role of IT in supply chain management with suitable examples.
10. Discuss how data mining can enhance supply chain management.
11. Enumerate the role of CRM and SRM in Internal supply chain management.
12. Briefly explain IT infrastructure for supply chain management in company networks with small and medium-size enterprise.
13. Illustrate the role of Decision Support Systems in supply chain management and design.

14. Compare and Contrast the ERP with ERP II.
15. How do the producers and suppliers exchange products in e-market place? Explain the framework of Supply Chain in B2B practices.
16. Discuss the use of IT in various modes of transportation with advantages and disadvantages.

PART C — (1 × 20 = 20 marks)

Case Study - Compulsory

17. over the past twenty years, Walmart has become the world's largest and arguably most powerful retailer with the highest sales per square foot, inventory turnover, and operating profit of any discount retailer. Walmart also networked its suppliers through computers. Illustrate the strategic management framework of walmart for IT adoption in SCM.
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