

**MBSC 3001**

M.B.A DEGREE EXAMINATION, JUNE 2017.

Third Semester

Operations and Supply Chain Management

**PRODUCTION AND OPERATIONS MANAGEMENT**

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions.

1. Trace out the responsibilities of Operations Manager.
2. Bring out the stages in the development of a new product. Explain each stage in brief.
3. Describe various steps involved in process design.
4. What are the major factors governing plant location?
5. Write the essential quality characteristics of goods and services.
6. Name the tools and techniques for quality improvement.

7. Distinguish between method study and work measurement.
8. Highlight the over all goals of TPM and its contribution to quality.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

9. What is Operations Management? What are the important decisions taken by Operations Manager for production?
10. What is new product? Explain the steps involved in new product development.
11. "Plant layout involves besides grouping of machinery an arrangement of other facilities also" – Discuss.
12. What is time study? Clearly explain the procedure involved in time study.
13. Describe the uses of work sampling. Also point out its advantages and limitations.
14. Elaborate the major functions of Production Planning and Control (PPC). Write in detail about six sigma concept and its applications in production management.

15. What are the aggregate planning techniques? Explain clearly.
16. Narrate the procedure for Total Productive Maintenance.

PART C — (1 × 20 = 20-marks)

Compulsory

17. A time study was conducted on a job consisting of three elements. Stop watch readings in hundredth of a minute are given. Using cumulative timing method along with rating factors, calculate the standard time if allowance is 12%.

Element	Stop watch readings					Rating
	1	2	3	4	5	
A	10	73	139	203	266	80
B	25	88	155	218	280	100
C	64	128	193	257	320	110

Question :

- (a) What are some key success factors in diamond retailing? How do Blue Nile, Bales, and Tiffany compare on those dimensions?
  - (b) What do you think of Tiffin's decision to not sell diamonds online?
  - (c) What advice would you give to each of the three companies regarding its strategy and structure?
  - (d) Which of the three companies do you think is best structured to deal with weak economic times?
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## MBSC 3002

M.B.A. DEGREE EXAMINATION, JUNE 2017.

Third Semester

Operations and Supply Chain Management

### LOGISTICS MANAGEMENT

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions.

1. What are the services to be provided by customers in supply chain management?
2. What do you mean by warehouse and explain the types of warehouse?
3. Give the characteristics of intermediaries.
4. Enumerate the components of transportation in logistic management.
5. Explain the principles of global logistics.
6. Evaluate the networks of supply chain management.

7. What are the problems faced by the distributors?
8. Write short notes on basic transport economic factors :
  - (a) Distance
  - (b) Volumes
  - (c) Market factor
  - (d) Liability.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

9. What do you mean by internal integration? Explain the barriers of internal integration.
10. Define warehousing. Explain the important benefits of warehousing.
11. Describe the five modes of transportation and Principles of transport operation.
12. Explain the types of distribution channels and needs.
13. Describe the challenges of global logistics and advantages of global logistics. Explain.
14. Define supply chain management and explain the strategies of supply chain management.
15. Define inventory and explain the models of inventory.
16. What do you mean by direct shipping network? And explain the characteristics of direct shipping network.

PART C — (1 × 20 = 20 marks)

Case Study (Compulsory)

17. A customer walks into your jewelry store with printout of diamond selections from Blue Nile, a company that is the largest retailer of diamonds online. The list price for the customer's desired diamond is only \$100 above your total cost for a stone of the same characteristics. Do you let the customer walk or come down in price to compete? This is a dilemma that has faced many jewelers. Some argue that jewelers should lower prices on stones to keep the customer. Future sales and add-on sales such as custom designs, mountings, and repairs can then be used to make additional margins. Others argue that cutting prices to compete sends a negative signal to loyal customers from the past who may be upset by the act that they were not given the best price.

As the economy tightened during the holiday season 2007, the differences in performance between Blue Nile and brick-and-mortar retailers were starting. In January 2008, Blue Nile reported a 24 percent jump in sales during its fourth quarter. For the same quarter, Tiffany posted a 2 percent drop in domestic same-store sales, and sales reported a 9 percent drop. The chief operating officer of Blue Nile. "This business is all about taking market share. We look type of environment as one of opportunity"?

**MBSC 3003**

M.B.A. DEGREE EXAMINATION, JUNE 2017.

Third Semester

Operations and Supply Chain Management

**SUPPLY CHAIN MANAGEMENT**

Time : Three hours

Maximum : 100 marks

PART A — (5 × 6 = 30 marks)

Answer any FIVE questions out of Eight questions.

1. State the objectives of supply chain.
2. List some of the applications of modeling in supply chain management.
3. Explain technological factors impact network design decisions.
4. Explain demand forecasting.
5. Explain the role of distribution in the supply chain.
6. Explain the role of safety inventory in supply chain.
7. Differentiate between insourcing and outsourcing.
8. Explain the importance of aggregate planning.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions out of Eight questions.

9. Discuss the various factors that influence distribution network design.
10. Explain eSRM, eLRM and eSCM packages used in supply chain management.
11. Explain briefly the drivers of supply chain performance.
12. Explain the effect of lack of coordination on the supply chain performance.
13. Explain the framework and the role of supply chain in e-business.
14. Describe the cycle view and push/pull view of supply chain process.
15. Explain the applications of network optimization models.
16. Describe the components of a forecast and various types of forecasting methods.

PART C — (1 × 20 = 20 marks)

(Compulsory)

17. Kanishga Devi Tell is a mobile store that receives sales constantly, from urban customers in South India. It is planning to expand its business in North India. It is finding it very expensive to train sales personnel and finds the cost incurred on sales personnel will increase the cost of expansion.
  - (a) How can the company expand its existing business?
  - (b) What kind of strategies must be developed to expand the business?
  - (c) What kind of technical limitations and legal implications that the company may face by entering into electronic environment?
  - (d) Can the business establish link with customers and other business associates through web sites?
  - (e) What are the factors should the organization focus to convert its existing business to e-business?

**MBSC 3004**

M.B.A. DEGREE EXAMINATION, JUNE 2017.

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.

1. Explain the principles of materials handling.
2. Explain the importance of ethic's in materials management.
3. Explain JIT approach.
4. List out the terminologies involved in MRP calculations.
5. Discuss the procedure for stock control.
6. How will you ensure worker's safety?
7. Explain operational research techniques.
8. Differentiate ABC with Kanban system.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions out of Eight questions.

9. Briefly explain ABC analysis with suitable example.
10. Explain the importance of materials handling. List out the various materials handling equipments.
11. Discuss the various techniques of inventory control.
12. Explain the steps involved in materials requirement planning.
13. Explain the various methods of physical stores verification with their merits and demerits.
14. Compare manufacturing resource planning (MRP) and distribution requirements planning (DRP) Explain.
15. Briefly explain benchmarking and measurement of performance.
16. Explain simple simulation techniques and decision trees.



- (i) Do you think Mr. Anand was right in pinning his faith on Srivastava?
- (ii) Was Srivastava's actions for a policy of inventory built-up right, without studying pros and cons of the metal and tin product business?
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PART C — (1 × 20 = 20 marks)

(Compulsory)

17. Anand Metal and Tin Products Pvt, Ltd.

(A case in higher inventing level and better customer services)

Anand Metal and Tin Products, Pvt. Ltd, is a large distributing firm dealing in metal and tin products. It has six regional warehouses for serving adjacent states and six offices in regions with its headquarters in New Delhi. Six warehouses act as sales outlets, which are autonomous in character. The purchasing and inventory policy is determined by each product manager in consultation with warehouse managers in each zone, but the broad policy directives are given by the General Manager in New Delhi,

Mr. C.L. Anand, Chairman of the company found to his utter dissatisfaction that the company has not been able to make any profit during the last three years, nor sales has appreciably increased. Although its profit-to-sales ratio has been low in comparison to other competitive firms in the line during the previous years, but during the last two to three years it has dwindled further even though there are good demands for metal and tin production in the market.

In an effort to bring about a change in his company, Mr. Anand fired Mr. B.N. Misra, the General Manager of the company who had been holding the position for the last seven years. He was replaced by Mr. S.P. Srivastava with an alluring pay and liberal perquisites.

On joining the company, Srivastava carefully went increases for several products listed in the sales catalogue. In this estimates, he also convincingly declared increases in sales would turn the table and this would enable the company to make good profit. He therefore instructed all the regional Product Manager that they in consultation with the warehouse managers should immediately initiated purchase actions for all items. He outlined the inventory policy as follows.

- (a) An all-out effort should be made to get as much quantity discount as possible on all purchase in future.
- (b) Wherever possible, purchase should be in such lots as to be economical and optimal.
- (c) Stocks in warehouses may rise due to this larger quantity purchases, but increased carrying cost for higher inventory - holdings would be compensated by an increase in sales and better customer services.

Within a short time, sales picked up and by the year-end it was expected to go beyond all predictions. But all the warehouses reported huge stocks of unsold inventory. This superseded all previous records in the company history.

Following a rumour that there is an impending strike in the factories of a major metal and tin products manufacturer in the country. Srivastava a urged all the warehouses to increase stocks further and instructed product managers to procure all items from any available source.

The strike, however, did not materialize owing to a union-management settlement and the product managers promptly acting on his advise inflated stocks of the warehouse to a danger level. At the end of the year during final accounting it was found that even though there has been some improvement in the sales the company has actually incurred a loss.

**MBSC 3005**

M.B.A. DEGREE EXAMINATION, JUNE 2017.

Third Semester

Operations 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. Define supply chain management. Explain the role of IT in supply chain management.
2. What are the objectives of IT in SCM?
3. Explain the goals of supply chain information technology.
4. What is standardization and mention a few of its drawbacks and challenges?
5. Discuss the communications application in information technology.
6. Discuss in detail the benefits of ERP.

7. What is system architecture? Explain the middleware system architecture.
8. Distinguish between ERP and SCM.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions out of Eight questions.

9. Explain the infrastructure components for information technology.
10. What are the stages of development and integrating supply chain information technology?
11. Explain the factors of supply chain master planning.
12. What is data mining and explain the elements of data mining?
13. What is meant by ERP and explain the modules of ERP?
14. What is meant by DSS and explain the selected supply Chain DSS?
15. Define the supply chain information system. What are the points to be considered?
16. What are the uses of purchasing inventories in IT?

PART C — (1 × 20 = 20 marks)

(Compulsory)

17. Case Study :

Trucking companies no longer merely carry goods from one place to another. They can also provide supply chain management services to their customers and help them manage their information. Investigate the websites of two companies, J.B. Hunt [[www.jbhunt.com](http://www.jbhunt.com)] and Schneider logistics [[www.schneiderlogistics.com](http://www.schneiderlogistics.com)] to see how these companies' services can be used for supply chain management. Then respond to the following questions :

- (a) What supply chain processes can each of these companies support for their clients?
- (b) How can customers use the website of each company to help with supply chain management?
- (c) Compare the supply chain management services provided by these companies. Which company would you select to help your firm manage its supply chain? Why?