

Hall Ticket Number:

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Code No. : 17532 S (B)

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD*Accredited by NAAC with A++ Grade***B.E. (Mech. Engg.) VII-Semester Supplementary Examinations, July-2022****Supply Chain Management (PE-II)**

Time: 3 hours

Max. Marks: 60

*Note: Answer all questions from Part-A and any FIVE from Part-B**Part-A (10 × 2 = 20 Marks)*

| Q. No. | Stem of the question | M | L | CO | PO |
|----------------------------------|--|---|---|----|----|
| 1. | List the stages which are typically involved in any supply chain. | 2 | 1 | 1 | 9 |
| 2. | Summarize the goal of drivers in a supply chain. | 2 | 2 | 1 | 9 |
| 3. | Define distribution with respect to a supply chain. | 2 | 1 | 2 | 4 |
| 4. | Identify the factors that affect the network design decisions in supply chains. | 2 | 2 | 2 | 4 |
| 5. | Differentiate between a push and a pull process. | 2 | 2 | 3 | 9 |
| 6. | Discuss about the various operational practices in a supply chain. | 2 | 1 | 3 | 11 |
| 7. | Compare cycle inventory and safety inventory. | 2 | 1 | 4 | 4 |
| 8. | What is optimal level of product availability? | 2 | 2 | 4 | 4 |
| 9. | Briefly describe the role of transportation in a supply chain. | 2 | 2 | 5 | 9 |
| 10. | Compare sourcing and procurement. | 2 | 1 | 5 | 9 |
| <i>Part-B (5 × 8 = 40 Marks)</i> | | | | | |
| 11. a) | Enunciate about the goal of a supply chain and explain the impact of supply chain decision in the success of a firm. | 4 | 3 | 1 | 4 |
| b) | Identify the drivers involved in a supply chain and elaborate about the influence of any two drivers on a supply chains' performance. | 4 | 4 | 1 | 4 |
| 12. a) | Enlist the six distribution network designs and compare any two distribution network design options by comparing the cost and service factors. | 4 | 4 | 2 | 4 |
| b) | Discuss about the impact of globalization on supply chain networks. | 4 | 4 | 2 | 9 |
| 13. a) | Write a note on time-series forecasting methods. | 4 | 4 | 3 | 1 |
| b) | Elucidate on the aggregate planning strategies. | 4 | 2 | 3 | 4 |

Contd... 2

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| 14. a) | Discuss the effect of lot size on costs when considering the economies of scale to exploit fixed costs. How is the optimal lot size identified? | 4 | 4 | 4 | 4 |
| b) | Justify the role of safety inventory in a supply chain. | 4 | 3 | 4 | 9 |
| 15. a) | Discuss the performance characteristics of various modes of transportation. | 4 | 3 | 5 | 4 |
| b) | Elaborate on any two design options for a transportation network. | 4 | 3 | 5 | 4 |
| 16. a) | Seven-Eleven's supply chain strategy in Japan can be described as attempting to micro-match supply and demand using rapid replenishment. What are some risks associated with this choice? | 4 | 4 | 1 | 11 |
| b) | Elaborate on the framework for network design decisions by using the four phases involved. | 4 | 2 | 2 | 4 |
| 17. | Answer any <i>two</i> of the following: | | | | |
| a) | Compare and contrast the just-in-time (JIT) and Vendor managed inventory (VMI). | 4 | 2 | 3 | 9 |
| b) | When is short term discounting used? State the three goals of trade promotions. | 4 | 3 | 4 | 4 |
| c) | Elaborate on the role of sourcing on a supply chain. Suggest when to choose In-house or outsource. | 4 | 3 | 5 | 9 |

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

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| i) | Blooms Taxonomy Level – 1 | 20% |
| ii) | Blooms Taxonomy Level – 2 | 22% |
| iii) | Blooms Taxonomy Level – 3 & 4 | 58% |
