

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)**

**CLASS: BTECH  
BRANCH: PRODUCTION & IE**

**SEMESTER : VII  
SESSION : MO/2024**

**SUBJECT: PE411 SUPPLY CHAIN MANAGEMENT**

**TIME: 3 Hours**

**FULL MARKS: 50**

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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|--------|--|-----|-----|
| Q.1(a) | Describe centralized versus decentralized supply chains with their pros and cons.              | [5] | 2 3 |
| Q.1(b) | Write about any two supply chain key metrics and their applications.                           | [5] | 1 3 |
| Q.2(a) | Describe any two design options for a distribution network and their suitability for business. | [5] | 2 4 |
| Q.2(b) | Explain the function of cross-docking and the meaning of demand consolidation.                 | [5] | 3 4 |
| Q.3(a) | Describe the design of reverse logistics network and its various functions.                    | [5] | 3 4 |
| Q.3(b) | Compare 3, 4 and 5PL service providers and their responsibilities.                             | [5] | 3 3 |
| Q.4(a) | Mention all the pros and cons for insourcing and outsourcing for typical OEM.                  | [5] | 4 2 |
| Q.4(b) | How Information Technology brings changes to supply chains under SC4.0 ?                       | [5] | 4 3 |
| Q.5(a) | What is a 'Leagile Supply Chain'? Explain its framework and working principle.                 | [5] | 5 3 |
| Q.5(b) | Define 'Design for postponement' and 'Decoupling point' and explain their relation.            | [5] | 4 2 |

:::21/11/2024:::M