

Appendix-I

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPTT. / CENTRE : **DEPARTMENT OF MANAGEMENT STUDIES**

1. Subject Code: **IBM-311** Course Title : **Operations and Supply Chain Management**
2. Contact Hours: **L: 3 T:0 P: 0**
3. Examination Duration (Hrs.): **Theory: 3 Practical: 0**
4. Relative Weightage: **CWS : 25 PRS : 0 MTE: 25 ETE: 50 PRE : 0**
5. Credits: **3** 6. Semester: **Both** 7. Subject Area: **PEC**
8. Pre-requisite: **Nil**
9. Objective: The course is designed to explain and evaluate the current thinking in operations and supply.

10. Details of the Course:

| SI.No. | Contents | Contact Hours |
|--------------|--|---------------|
| 1 | Introduction to the field, operations and supply chain strategy, project management, product and service design, case study | 8 |
| 2 | Strategic capacity management, process analysis, manufacturing process, facility layout, service process, waiting line analysis, six-sigma quality, case study | 8 |
| 3 | Logistics and facility location, designing the supply chain network, supply chain coordination, service supply chain, case study | 8 |
| 4 | Enterprise resource planning systems, demand management and forecasting, aggregate sales and operations planning, inventory control, material requirement planning, scheduling, simulation, constraints management, case study | 10 |
| 5 | Lean supply chain management, supply chain information systems and electronic commerce, supplier evaluation and selection, supply chain performance measurement, case study | 8 |
| Total | | 42 |

11. Suggested Books:

| S.No. | Name of Authors/Book/Publisher | Year of Publication / Reprint |
|-------|--|-------------------------------|
| 1 | Richard B. Chase, Ravi Shankar, F. Robert Jacobs, Nicholas J. Aquilana, "Operations and Supply Chain management", 12 Edition, Tata McGraw-Hill | 2010 |
| 2 | Sunil Chopra and Peter Meindel, "Supply Chain Management: Strategy, Planning, and Operations", Pearson India | 2012 |
| 3 | Krajewski, "Operations Management : Processes and Supply Chains", Pearson India (English), 9th Edition | 2011 |
| 4 | Ronald H. Ballou and Samir K Srivastav, "Business Logistics/Supply Chain Management", Pearson | 2014 |



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