BBA III Year	BBA-I505		Semester-V		
	Production and Operation Management				
Time Allotted for End Semester Examination	Marks Allotted for Internal Assessment	Marks Allotted for End Term Examination(ESE)	Maximum Marks (MM)	Total Credits	Maximum Hours
3 Hrs.	30(20+10)	70	100	04	40

	Course Outcomes:	Mapped Program Outcomes
CO.1	Understanding of Production and Operations functions in different types of Orgnaizations.	**PO1, PO2, PO7**
CO.2	Introduction to different types of Layouts and factors that determine Capacity and location of a manufacturing plant	**PO1, PO2, PO3**
CO.3	Design of Production systems and Processes	**PO6, PO8**
CO.4	Preparing Material Requirement Pland and Drawing Inventory Models	**PO3, PO4, PO7, PO8**
CO.5	Learning Quality Concepts, Tools and Techniques to develop Products and Services with Zero defect	**PO3, PO4, PO7, PO8**

- Introduction to Production & Operations Management: Definition, need, responsibilities, key decisions of OM, goods vs. services. Operations as a key functional area in an organisation. Operation Strategies- Definition, relevance, strategy formulation process. Product and service design basics. Role of forecasting in operations management. **(10 Hours)**
- Capacity and facility planning: Capacity Planning: Definition, measures of capacity (input and output), types of planning over time horizon. Layout planning – Benefits of good layout, importance, different types of layouts (Process, Product, Group technology and Fixed position layout). Location Decisions and Models: Facility Location –Objective, factors that influence location decision, location evaluation methods- factor rating method. **(10 Hours)**
- Process Selection: Definition, Characteristics that influence the choice of alternative processes (volume and variety), type of processes- job shop, batch, mass and continuous, product-process design Matrix and Services design matrix, technology issues in process design, flexible manufacturing systems (FMS), and computer integrated manufacturing (CIM).Lean production system. **(10 Hours)**
- Inventory and Production Control: Concept of Inventory management, Inventory control system and techniques (ABC analysis, EOC, Quantity Discount, Reorder Point), MRP and ERP for resource planning, Aggregate planning: Definition, nature, strategies of aggregate planning, methods of aggregate planning (level plan, chase plan and mixed plan, keeping in mind demand, workforce and average inventory). Quality Management: Concept of quality, quality tools (process flowchart, cause and effect diagram, Check sheets, Histogram, Pareto analysis, scatter diagram, SPC), Concept of Six Sigma, Introduction to 9001:2015. **(10 Hours)**

SUGGESTED READINGS:

1. Adam,Ebert, & Ronald .J. (1992). *Production and Operation Management. Concepts, Models & Behaviour*. PHI, New Delhi
2. Aswathappa, K., &Bhat,Shridhara.K. (2011). *Production and Operations Management*.TMH, Delhi.



3. Chary, S.N.(2017). *Production and Operation Management*. TMH.NewDelhi .
4. Chase,R.B., Richard, Shankar, R., Jacobs, F.R.(2018).*Operations and Supply Management*. TMH, Delhi.
5. Garg, Ajay(2011).*Production and Operations Management*.TMH, Delhi.
6. Madan, Pankaj.(2010).*Production and Operation Management*. New Delhi.
7. Mahadevan, B.(2015*). Operations Management:Theory and Practices(3rd ed.).* Pearson Education, Delhi.
8. Martinich, J.S.(1997). *Production and Operations Management.* John Wiley and Sons, New York.
9. Panneerselvam, R.(2012). *Production and Operations Management* (3rd ed.). PHI, Delhi.
10. Russell, R. S., & Taylor, B. W. (2014). *Operations and Supply Chain Management* (8th ed.). John Wiley and Sons.William. J. S. (2009).*Operation Management*. TMH, New Delhi

NOTE: The list of cases, specific references and books including recent articles will be announced in the class by concerned teachers from time to time.