ASSIGNMENT

Course Code	**:**	**MMPO-003**
Course Title	**:**	**Operations Management**
Assignment Code	**:**	**MMPO-003/TMA/JULY/2026**
Coverage	**:**	**All Blocks**

Note: Attempt all the questions and submit this assignment to the Coordinator of your study centre. Last date of submission for July 2026 Semester is 31st October 2026 and for January 2027 Semester is 30th April 2027.

1. Explain scope and significance of Operations Management and discuss the role of operations manager in improving productivity, managing resources, and maintaining ethical and environmental responsibilities.

2. Explain the concept of Demand Forecasting and Illustrate your answer by explaining how a manufacturing company can use forecasting for production planning.

3. Discuss different types of processes such as Job Shop, Batch, Repetitive, and Continuous processes. Compare these process types with their characteristics.

4. Explain how organizations can use tools such as flowcharts, Pareto charts, scatter diagrams, and cause-and-effect diagrams to identify operational problems and improve process efficiency.

5. Write a short note on the following:
    a) Concept of EOQ
    b) Framework of circular economy
    c) Six Sigma Vs Process Capability
    d) Random Causes and Assignable Causes

1. Explain scope and significance of Operations Management and discuss the role of operations manager in improving productivity, managing resources, and maintaining ethical and environmental responsibilities.

Answer

Operations Management is the management of activities through which an organisation converts inputs such as materials, labour, information, technology and capital into useful goods or services. It is not limited to a factory floor. A hospital manages patient flow, a bank manages transaction processes, a university manages teaching and examination services, and a manufacturer manages production. In each case, the central concern is to design and run the operating system so that customer needs are met with the right quality, cost, speed and dependability.

Scope of Operations Management

The scope begins with **product and service design**. Operations must understand what has to be delivered, the level of quality expected by customers, and whether the design can be produced or provided efficiently. A good design reduces unnecessary variety, avoids difficult processing steps and makes quality easier to maintain. Operations also contributes to process selection - deciding whether work should be organised as a job shop, batch process, assembly line, continuous process or another suitable arrangement.

A second major area is **capacity and facility planning**. Managers estimate how much capacity will be required, where facilities should be located, what type of layout should be used and how equipment should be arranged. These choices affect travel distance, waiting time, safety, coordination and future expansion. Capacity that is too small causes delays and lost sales, while excessive capacity ties up capital without generating sufficient output.

Operations Management also covers **planning and control of day-to-day work**. Demand forecasts are converted into aggregate plans, production schedules and detailed job priorities. Material requirements, purchasing, inventory, warehousing and supplier coordination have to support the schedule. In service organisations the same idea appears as staffing rosters, appointment systems, queue management and allocation of rooms, vehicles or service counters.

Another part of the scope is **quality management**. Quality is built into processes through clear standards, training, process control, inspection where needed, root-cause analysis and continuous improvement. Maintenance of plant and equipment, workplace safety, reliability, supply-chain coordination and the use of information systems are also operating responsibilities because failure in any