Part A (Each question carries 3 marks)

I.

(a) Functions of Management: (Total: 3 marks)
- Planning - Setting objectives and determining the best course of action to achieve them. Example: Strategic planning, operational planning, contingency planning. (Total: 0.5 marks)
- Organizing - Arranging resources (human, financial, physical) to implement plans effectively. Example: Creating an organizational structure, defining roles and responsibilities. (Total: 0.5 marks)
- Staffing - Hiring, training, and maintaining a workforce. Example: Recruitment, employee development, performance evaluation. (Total: 0.5 marks)
- Directing (Leading) - Guiding and motivating employees to work towards organizational goals. Example: Leadership, communication, decision-making. (Total: 0.5 marks)
- Controlling - Monitoring performance and making necessary adjustments to stay on track. Example: Performance evaluation, quality control, financial audits. (Total: 1 marks)

(b) Levels of Management: (Total: 3 marks)
- Top-Level Management (Strategic Level) - CEO, CFO, COO, Board of Directors. Responsibilities: Setting organizational goals, making long-term decisions, representing the organization externally, allocating resources. (Total: 1 marks)
- Middle-Level Management (Tactical Level) - Department heads, branch managers, division managers. Responsibilities: Implementing policies set by top management, coordinating between top and lower levels, monitoring team performance, making departmental decisions. (Total: 1 marks)
- Lower-Level Management (Operational Level) - Supervisors, team leaders, foremen. Responsibilities: Managing employees, assigning work, handling grievances, ensuring quality and efficiency. (Total: 1 marks)

(c) Types of Feasibility Study: (Total: 3 marks)
- Technical Feasibility - Evaluates whether the required technology, infrastructure, and expertise are available. (Total: 0.6 marks)
- Economic Feasibility - Assesses financial viability by comparing expected costs and benefits. (Total: 0.6 marks)
- Legal Feasibility - Ensures compliance with laws and regulations. (Total: 0.6 marks)
- Operational Feasibility - Examines alignment with organizational operations. (Total: 0.6 marks)
- Scheduling Feasibility - Determines if the project can be completed within the required timeframe. (Total: 0.6 marks)

(d) Economic Order Quantity (EOQ): (Total: 3 marks)
- EOQ is the optimal order quantity that minimizes total inventory costs by balancing ordering and holding costs. (Total: 1 marks)
- Formula: EOQ = Ordering Cost + Inventory Holding Cost (Total: 1 marks)
- Benefits: Reduces total inventory costs, prevents overstocking and stockouts, improves supply chain efficiency. (Total: 1 marks)

Part B (Each question carries 12 marks, may have sub-questions)

II. Types of Organizational Structures (Total: 12 marks)
- Line Organization - Authority flows vertically from top to bottom. Example: Small businesses, military organizations. (Total: 2.4 marks)
- Line and Staff Organization - Line managers handle operations, while staff departments (HR, R&D) provide support. Example: Large corporations, hospitals. (Total: 2.4 marks)
- Functional Organization - Employees grouped by specialization (marketing, finance, HR). Example: Manufacturing firms, universities. (Total: 2.4 marks)
- Project Organization - Teams formed temporarily for specific projects. Example: Construction companies, software development teams. (Total: 2.4 marks)

- Matrix Organization - Hybrid of functional and project structures. Employees report to both functional and project managers. Example: Engineering firms, multinational corporations. (Total: 2.4 marks)

III. Scientific Management (Total: 12 marks)
1. Frederick Winslow Taylor (F.W. Taylor) – Father of Scientific Management
- Developed Time and Motion Studies to analyze and improve worker efficiency.
- Introduced the Four Principles of Scientific Management:
  * Science, not rule of thumb.
  * Selection and training of workers.
  * Cooperation between management and workers.
  * Equal division of work and responsibility.
- Introduced Piece-Rate Wage System to motivate workers.
- Impact: Increased productivity and efficiency in manufacturing industries. (Total: 3 marks)

2. Frank & Lillian Gilbreth – Motion Study Experts (4 marks)
- Studied worker movements and developed the Therbligs (a classification of 17 basic motions to reduce unnecessary movements).
- Introduced Fatigue Study to minimize worker exhaustion and improve efficiency.
- Focused on ergonomics and human factors in industrial work.
- Impact: Improved workplace efficiency, reduced worker fatigue, and influenced modern ergonomics.(Total: 3 marks)

3. Henry Gantt – Project Management Pioneer
- Developed the Gantt Chart, a graphical tool for project scheduling and tracking progress.
- Advocated for task-based wage system, where workers received bonuses for exceeding targets.
- Emphasized human relations in management, focusing on motivation and worker satisfaction.
- Impact: The Gantt Chart is still widely used in project management for scheduling and tracking tasks. (Total: 6 marks)

IV. Production Planning and Control (PPC) (Total: 12 marks)
- Definition: PPC is the process of organizing, coordinating, and overseeing manufacturing activities to ensure efficiency and timely delivery. (Total: 3 marks)
- Key Components:
  - Production Planning - Decides what, how much, and when to produce.
  - Production Control - Monitors and regulates production to ensure adherence to schedules. (Total: 3 marks)
- Stages of PPC:
  - Pre-Planning: Forecasting demand and setting production goals.
  - Routing: Determining the best sequence of operations.
  - Scheduling: Allocating time for each task.
  - Dispatching: Issuing work orders.
  - Follow-up: Monitoring progress and making adjustments. (Total: 3 marks)
- Importance: Ensures resource efficiency, reduces production costs, improves quality, and helps meet delivery deadlines. (Total: 3 marks)