

Department of Management
School of Management and Business Studies
Jamia Hamdard
MBA III Semester Examination - December 2025

Subject Name: Digital Transformation in Operations Management Max. Marks: 60

Subject Code: MBA-GE-OM-01 Time: 2.5 Hours

Attempt any Five Questions. All questions carry equal marks (5 x 12 = 60)

- Q1: Analyze how the transition from Industry 1.0 to Industry 4.0 has transformed organizational efficiency, workforce skills, and global competitiveness. Provide suitable examples.
- Q2: A pharmaceutical company wants to enhance the traceability of its medicines while ensuring fast data processing across distributed facilities. Develop an integrated solution using blockchain. Justify how your design will strengthen compliance, reduce counterfeiting, and improve operational speed.
- Q3: A medium-sized automotive parts manufacturer is facing high defect rates and inconsistent production output. The management is considering implementing smart automation across its production line. As a consultant, propose a detailed plan explaining how smart automation can address these issues. Identify possible risks and strategies to mitigate them.
- Q4: Describe the importance of end-to-end supply chain visibility and explain how technologies such as RFID, IoT, and blockchain enable real-time transparency.
- Q5: A mid-sized manufacturing firm currently using mass production techniques similar to Industry 2.0 wants to evolve towards Industry 4.0. Evaluate the steps the firm must take to transition across the stages of industrial revolutions and assess the operational and human resource implications at each transition.
- Q6: Define cloud computing and describe the different cloud service models and deployment models. Explain how cloud computing enables scalable and flexible business operations.
- Q7: Analyze how predictive analytics helps organizations shift from reactive to predictive quality control. Discuss the impact on defect rates, downtime reduction, and process optimization.
- Q8: Explain the concept of logistics automation and discuss major tools such as AGVs, warehouse robotics, automated sorting, and autonomous vehicles.