Roll No……

GL BAJAJ
Institute of Management & Research, PGDM Institute
FIND YOUR SPARK
(Approved by A.I.C.T.E., Ministry of HRD, Govt. of India)
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POST GRADUATE DIPLOMA IN MANAGEMENT (2023-25)

END TERM EXAMINATION (TERM -III)

Subject Name: **Production planning and Control** Time: **02.00 Hrs.**
Sub. Code: **PGO31** Max Marks: **40**

Note:

All questions are compulsory. Section A carries 5 marks: 5 questions of 1 marks each, Section B carries 21 marks having 3 questions (with internal choice question in each) of 7 marks each and Section C carries 14 marks one Case Study having 2 questions of 7 marks each.

SECTION - A

Attempt all questions. All questions are compulsory. **1×5 = 5 Marks**

Q1 (A): Explain various types of forecasting

Q1 (B): What is the difference in scheduling and routing in production planning and control?

Q1 (C): What is Master Production Scheduling?

Q1 (D): What is the meaning of line balancing?

Q1 (E): Explain the terms: Lead Time, Bottleneck and Inventory Carrying Cost.

SECTION - B

All questions are compulsory (Each question has an internal choice. Attempt any one (either A or B) from the internal choice) **7 x 3 = 21 Marks**

Q2 (A): Explain the Functions of Production Planning and Control.

OR

Q2 (B): What is Aggregate Planning? How does it differ from Long range Planning and short period planning? Explain with an example

Q3 (A): Consider a situation where a job shop has to accommodate urgent custom orders while maintaining efficiency in its production processes. Propose a comprehensive plan that integrates Job Shop Planning principles, Scheduling and Control techniques to meet the demands of both standard and custom orders. Highlight potential challenges and solutions in this scenario.

OR

Q3 (B): Just-in-Time (JIT) production is often touted as a lean manufacturing technique. Analyze how JIT production influences inventory management, production efficiency, and overall cost reduction in a manufacturing setting.

Q4 (A): In your role as a production manager, you've identified bottlenecks in the production line that are impeding overall efficiency. How would you approach line balancing to optimize production flow and eliminate these bottlenecks, ensuring smooth operations and timely order fulfillment?

OR

Q4 (B): Imagine you're the production manager for a company experiencing fluctuating demand for its products. How would you develop a flexible master production schedule to accommodate these fluctuations while maintaining efficient resource utilization and minimizing production costs?

SECTION - C

Read the case and answer the questions **7×02 = 14 Marks**

Q. 5: Case Study: SpeedyMart's Just-in-Time Inventory Management

SpeedyMart, a prominent retail chain operating across diverse locations, encountered the common dilemma of balancing inventory levels with fluctuating consumer demand. In response, the company implemented a sophisticated just-in-time (JIT) inventory management system. This approach revolutionized their operations by establishing close partnerships with suppliers, enabling them to replenish inventory in small, frequent batches based on real-time sales data and demand projections. The benefits of this system were immediately apparent: reduced storage costs, minimized risk of overstocking, and improved cash flow due to judicious investment in necessary inventory. Moreover, by ensuring products are consistently available to meet customer demand, SpeedyMart heightened customer satisfaction and loyalty. Despite challenges such as supply chain disruptions and demand variability, SpeedyMart navigated these hurdles by diversifying its supplier base and implementing flexible production schedules. In summary, SpeedyMart's successful adoption of JIT inventory management exemplifies its commitment to operational efficiency and customer-centricity, solidifying its position as a leader in the retail industry.

Questions:

Q5: (A). How did SpeedyMart's implementation of just-in-time (JIT) inventory management contribute to reducing storage costs and improving cash flow?

Q5: (B). What kind of strategies SpeedyMart employ to address challenges such as supply chain disruptions and demand variability while implementing JIT inventory management?

Mapping of Questions with Course Learning Outcome

Question Number	COs	Bloom's Level	Marks Allocated
Q. 1:	**CO1**	**L1, L2**	**5 marks**
Q. 2:	**CO2**	**L3, L4**	**7 marks**
Q. 3:	**CO3**	**L3, L4**	**7 marks**
Q. 4:	**CO3**	**L3, L4**	**7 marks**
Q. 5:	**CO4**	**L5,L6**	**14 marks**