JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

MBA-I Semester

COURSE CODE (CREDITS):26MB1JB116 (3) MAX. MARKS: 15

COURSE NAME: OPERATIONS MANAGEMENT

COURSE INSTRUCTOR: ASA MAX. TIME: 1 Hour

Note: *(a) All questions are compulsory.*

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of calculator is ALLOWED.

Q.No	Question	CO	Marks
Q1	Read the following case carefully and answer the questions followed: Vantage Auto Components, a mid-sized manufacturer of automobile brake systems, was founded in 1995 as a small job-shop producing custom parts for local repair garages. Over three decades, the firm evolved from manual assembly to a highly automated production line supplying original equipment manufacturers (OEMs) across the country. At the core of Vantage's operations lies a transformation process: raw steel, rubber compounds, and electronic sensors are converted, through machining, assembly, and quality testing, into finished brake assemblies ready for dispatch. The plant head, Ms. Anita Rao, often reminds new recruits that "operations is the engine room of the company" — while marketing wins orders and finance secures capital, it is operations that determines whether the company can deliver quality products on time and at a competitive cost. In recent years, Vantage has faced mounting pressure: customers demand faster delivery and customisation, competitors have adopted lean and Six Sigma practices, and global supply chain disruptions have made raw material sourcing unpredictable. Sustainability regulations now require the firm to reduce scrap and energy use. Ms. Rao believes that unless Vantage repositions its operations strategy — deciding whether to compete on cost, quality, flexibility, or delivery speed — it risks losing its OEM contracts to more agile rivals. She has called a management meeting to rethink how operations decisions align with the company's overall competitive strategy. **a)** Using the concept of the transformation process, identify and explain the inputs, conversion process, and outputs at Vantage Auto Components.	**3**	**1.5x4 = 6**

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	b) Why should managers across functions (not just operations specialists) understand operations management? Justify your answer with reference to Vantage's situation. c) Trace how Vantage's evolution from a manual job-shop to an automated OEM supplier reflects broader historical developments in the field of operations management. d) If you were advising Ms. Rao, what operations strategy priorities (cost, quality, flexibility, delivery speed) would you recommend Vantage adopt?		
Q2	"Economic analysis of a development project differs fundamentally from its financial analysis, as it evaluates the project's worth to society rather than to the individual investor." Critically examine this statement. In your answer, discuss the key distinctions between economic and financial analysis	**2**	**3**
Q3	Write short notes (max 50 words) **a)** Product Development Process **b)** DFM (Design for Manufacturability **c)** Digital Twins in Product Development **d)** Prototyping	**1**	**1.5x4 = 6**

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