

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: BTECH
BRANCH: PIE**

**SEMESTER : V
SESSION : MO/2025**

SUBJECT: PE307 COMPETITIVE MANUFACTURING STRATEGIES

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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Q.1(a)	Discuss the various types of competitive advantages which any firm can develop and what are the challenges industries face in maintaining a long-term competitive advantage.	[5] 1	2
Q.1(b)	Analyse the competitive environment of the Indian smartphone market. Identify key players, challenges, and competitive factors.	[5] 1	4
Q.2(a)	A company finds that delivery delays from certain vendors are increasing. How can vendor rating help identify and correct the issues?	[5] 2	3
Q.2(b)	Examine how automobile companies like Maruti Suzuki manage product variety efficiently	[5] 2	3
Q.3(a)	A manufacturing company faces high inventory costs and long lead times. Propose how JIT and Kanban can be implemented to solve these issues.	[5] 3	3
Q.3(b)	Compare <i>JIT</i> , <i>Lean</i> , and <i>Agile</i> manufacturing approaches.	[5] 3	2
Q.4(a)	How ERP system integrates with simulation tools for better production planning?	[5] 4	4
Q.4(b)	Analyse how the integration of CIM and E-Manufacturing contributes to real-time decision-making and global competitiveness.	[5] 4	3
Q.5(a)	What is a Reconfigurable Manufacturing System? Discuss its advantages over FMS and CMS.	[5] 5	2
Q.5(b)	How does product variety influence the selection of a manufacturing system?	[5] 5	4

:::27/11/2025:::M