

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

**CLASS: B.TECH.  
BRANCH: PRODUCTION ENGINEERING**

**SEMESTER: VII  
SESSION: MO/2023**

**SUBJECT: PE407 ADVANCED MANUFACTURING PROCESSES**

**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)	Describe the Ceramic Shell Investment Casting processes with industrial applications.	[5]	1 1
Q.1(b)	Explain the Evaporative pattern Casting processes with applications.	[5]	1 2
Q.2(a)	Describe the Cold-Welding processes with application.	[5]	2 1
Q.2(b)	Explain the Explosive Welding processes with applications.	[5]	2 2
Q.3(a)	Explain the Ring Rolling processes with applications.	[5]	3 2
Q.3(b)	Explain the Isothermal Forging processes with applications.	[5]	3 2
Q.4(a)	Describe the Powder Metallurgy processes with industrial applications	[5]	4 1
Q.4(b)	Describe the Metal Injection Moulding processes with applications.	[5]	4 1
Q.5(a)	Describe the Blow Moulding processes with industrial applications	[5]	5 1
Q.5(b)	Explain the Thermoforming processes with application.	[5]	5 2

**:::::23/11/2023 M:::::**