

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular End Semester Examination – Summer 2022

Course: B. Tech. Branch : Mechanical Engineering Semester :VI

Subject Code & Name: BTMC401 Manufacturing Processes I

Max Marks: 60

Date: 13/08/2022

Duration: 3.45 Hr.

Instructions to the Students:

1. All the questions are compulsory.
2. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question.
3. Assume suitable data wherever necessary and mention it clearly.

	(Level/CO)	Marks
Q.1 Answer Any Two of the following.		
A) Explain the following types of casting processes	CO1	6
I] Expendable-pattern casting (Lost Foam)		
II] Shell-mold casting		
B) What is the function of chills in the casting processes? Why the chaplets are used in casting?	CO1	6
C) What is 'Fluidity Index'? Name the property of the mold that provides "ability to give way and allow casting to shrink without cracking the casting". Define the casting defect 'Misrun'.	CO1	6
Q.2 Explain any two of the following with neat diagrams.		
A) Two-high or three-high rolling mills.	CO2	6
B) Cluster mill.	CO2	6
C) Impression-die forging.	CO2	6
Q.3 Answer Any Two of the following.		
A) Explain the Process of Impact Extrusion giving suitable example.	CO3	6
B) Explain types of shearing dies.	CO3	6
C) Show the following types of discontinuities in fusion welds.	CO4	6
i] Underfill		
ii] Inclusions		
iii] Overlap		
iv] Undercut		
v] Incomplete penetration		
Q.4 Answer Any Two of the following.		
A) Explain the following types of welding processes	CO4	6
I] Thermit Welding		
II] Friction Stir Welding		
B) What are different types of lathes?	CO5	6
C) What is gun drilling and how drill life is measured?	CO5	6
Q.5 Write short notes on Any Two of the following.		
A) Broaching.	CO6	6
B) End milling	CO6	6
C) Gear finishing processes.	CO6	6

***** End *****