CBCS SCHEME

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BAU303

Third Semester B.E./B.Tech. Degree Examination, June/July 2025
Manufacturing Processes

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Classify different types of pattern allowances and elaborate any two types of pattern allowances with neat sketches.	10	L3	CO1
	b.	With a neat sketch elaborate the working principle of jolt moulding machine.	10	L2	CO1
		OR			
Q.2	a.	With a neat sketch elaborate the steps involved in casting process and highlight advantages, disadvantages and limitations.	10	L2	CO1
	b.	Classify different types of cores and explain any two types of cores with neat sketches.	10	L3	CO1
		Module – 2			
Q.3	a.	With a neat sketch explain the working principle of investment casting.	10	L2	CO1
	b.	Describe the working of cupola furnace with a neat sketch.	10	L3	CO1
		OR			
Q.4	a.	How would you set up and operate a centrifugal casting machine to produce a cylindrical pipe with uniform wall thickness.	10	L1	CO1
	b.	Classify and explain any 4 types of defects in castings with neat sketches.	10	L3	CO1
		Module – 3			
Q.5	a.	Evaluate the advantages and limitations of using submerge are welding with neat sketch.	10	L1	CO2
	b.	Illustrate with a neat sketch the working principle of a electron beam welding.	10	L2	CO2
		OR			
Q.6	a.	Elaborate with a neat sketch the working principle of a resistance seam welding.	10	L4	CO2
	b.	Assess the advantages and limitations of a laser beam welding and explain its working with a neat sketch.	10	L1	CO2

		Module – 4			
Q.7	**a.**	Elaborate the working principle of a board drop hammer with a neat sketch.	**10**	**L4**	**CO3**
	b.	With a neat sketch explain the working of a tandem rolling mill.	**10**	**L3**	**CO3**
		OR			
Q.8	**a.**	Briefly explain metal working defects.	**10**	**L1**	**CO3**
	b.	Elaborate the working principle of a planetary rolling mill and discuss the advantages and limitations of the process.	**10**	**L4**	**CO3**
		Module – 5			
Q.9	**a.**	With a neat sketch illustrate the angles of a single point cutting tool nomenclature.	**10**	**L2**	**CO4**
	b.	Briefly describe the constructional features of a universal milling machine with a neat sketch.	**10**	**L3**	**CO4**
		OR			
Q.10	**a.**	Describe the desirable properties of a cutting tool.	**10**	**L2**	**CO4**
	b.	Illustrate the constructional features of a radial drilling machine with a neat sketch.	**10**	**L4**	**CO4**

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