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BME302

Third Semester B.E./B.Tech. Degree Examination, June/July 2026
Manufacturing Process

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.	Define Pattern. Explain any four types of pattern allowances with sketches.	10	L1	CO1
	b.	Define Core. Explain the method of a making core.	10	L1	CO1
		OR			
Q.2	a.	Explain in detail the procedure to determine permeability number of green sand.	10	L2	CO1
	b.	Explain the types of gating systems with neat sketches.	10	L2	CO1
		Module – 2			
Q.3	a.	Explain with a neat sketch working of a cupola furnace.	10	L2	CO2
	b.	Explain with neat sketches Casting Defects.	10	L2	CO2
		OR			
Q.4	a.	Explain with a sketch Centrifugal Casting Process.	10	L2	CO2
	b.	Explain with a neat sketch Coreless Induction Furnace.	10	L2	CO2
		Module – 3			
Q.5	a.	Explain any 4 sheet metal farming processes with sketches.	10	L2	CO3
	b.	Write a short note on Yield Criteria.	10	L2	CO3

		OR			
Q.6	**a.**	With a neat sketch, explain Compound and Progressive Die Processes.	**10**	**L2**	**CO3**
	b.	Write the differences between Hot Working and Cold Working.	**10**	**L2**	**CO3**
		Module – 4			
Q.7	**a.**	Explain with a neat sketch MIG welding process. Write its advantages and applications.	**10**	**L2**	**CO4**
	b.	Explain with sketches types of flames in Oxy-Acetylene Welding.	**10**	**L2**	**CO4**
		OR			
Q.8	**a.**	Explain with a sketch Tungsten gas arc welding process. Write its advantages and applications.	**10**	**L2**	**CO4**
	b.	Explain with working of Oxy-Acetylene Welding with a sketch.	**10**	**L2**	**CO4**
		Module – 5			
Q.9	**a.**	Write a short note on : i) Soldering ii) Brazing	**10**	**L2**	**CO5**
	b.	Explain the Welding Defects and its remedies.	**10**	**L2**	**CO5**
		OR			
Q.10	**a.**	Explain the thermal effects in welding process.	**10**	**L2**	**CO5**
	b.	Write a short note on : i) Resistance Welding ii) Friction Stir Welding	**10**	**L2**	**CO5**

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