

CBCS SCHEME

USN		18ME45B/18I	MEB405
		Fourth Semester B.E. Degree Examination, Feb./Mar. 2022	
		Metal Casting and Welding	
Tim	ie: 3	hrs. Max. Ma	arks: 100
		ote: Answer any FIVE full questions, choosing ONE full question from each mod	
1	a.	Module-1 Define manufacturing process. With a suitable sketch, explain the classif	ication of
1	a.	manufacturing process. With a suitable sketch, explain the classifi	(10 Marks)
	b.	With a neat sketch, explain the working of Jolt moulding machine.	(10 Marks)
		OR	
2	0	With neat sketches, explain investment moulding process, listing its advantages.	(10 Marks)
4	a. b.	Explain Open Riser and Blind Riser with neat sketches.	(10 Marks)
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_		Module-2	C1
3	a.	With a neat sketch, explain the constructional features and working principle	(10 Marks)
	h	induction furnace. Draw and explain the basic principle of working of a resistance furnace.	(10 Marks) (10 Marks)
	U.		(10 Marks)
		OR	(40.75 1)
4	a.	With a neat sketch, explain continuous casting process.	(10 Marks)
	b.	Explain Hot chamber pressure die casting process with a neat sketch.	(10 Marks)
		Module-3	
5	a.	Describe the need of directional solidification in casting.	(06 Marks)
	b.	With neat sketches, explain any four casting defects.	(08 Marks)
	C.	With a neat sketch, explain stir casting process.	(06 Marks)
		OR	
6	a.	Explain stream droplet degassing and induction degassing methods with neat sket	ches.
	b.	State and advantages and limitations of casting process.	(12 Marks) (08 Marks)
	υ.		(00 Marks)
_		Module-4	a atata ita
7.	a.	With a neat sketch, explain flux shielded metal arc welding process. Als	(10 Marks)
	h	advantages and limitations. With a neat sketch, explain laser welding process. Mention its advantages and lim	5
	υ.	Willi a fleat sketch, explain fasci welding process. Mention its devantages and in	(10 Marks)
		OR	
8	a.	Explain the Thermit welding process with sketch. List its advantages and applicate	
	1	Will a list of the second Mantion its ody	(10 Marks)
	b.	With a neat sketch, explain Tungsten Inert gas welding process. Mention its adv	(10 Marks)
		disadvantages.	(10 Marks)
		Module-5	(0.634 1)
9	a.	Explain the different zones in welding with a neat sketch.	(06 Marks)
	b.	With neat sketches, explain the types of flames that can be obtained during ox	(06 Marks)
	c.	welding process. With neat sketches, explain any four welding defects.	(08 Marks)
	٠.	y -	
		OR OR	

With a neat sketch explain ultrasonic inspection method and list its advantages.

b. Explain radiography inspection method with its advantages and disadvantages.

(10 Marks)

(10 Marks)

Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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