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(b) Above recrystallization temperature

(d) Any of the above

Question Paper Code: 53702

B.E./B.Tech. DEGREE EXAMINATION, NOV 2022

Third Semester

Mechanical Engineering

15UME302 -MANUFACTURING TECHNOLOGY-I

	13 CIVIL 3 02 IVII II VOI	reference recurred of r				
	(Re	gulation 2015)				
Dur	ation: Three hours	Maximum: 100 Marks	S			
	Answe	r ALL Questions				
	PART A -	(10 x 1 = 10 Marks)				
1.	The ability of the moulding sand to withstand the heat of melt without showing any sign of softening is called as					
	(a) Strength or cohesiveness	(b) refractiveness				
	(c) collapsibility	(d) adhesiveness				
2.	2. Which of the following defects in casting can occur when there is low permeability in sand?					
	(a) Rough surface (b) Blow holes	(c) Hot tears (d) Drop	•			
3.	Which one among the following consumable electrode?	welding process uses non	CO2-U			
	(a) Only A.C. (b) Only D.C	(c) Both A.C and D.C (d) None of the	e above			
4.	Heat is created by the chemical reaction	on in	CO2- U			
	(a) Resistance welding	(b) Oxyacetylene welding				
	(c) Tungsten arc welding	(d) Thermit welding				
5.	The cold working of metal is accompli	ished at	CO3- U			

(a) Below recrystallization temperature

(c) Recrystallization temperature

6.	The	volume of metal that enters the rolling		CO3- R		
	(a) s	should increases after rolling process				
	(b) s	should decrease after rolling process				
	(c) s	should remain same after rolling proce	ess			
	(d)	Unpredictable				
7.	Pun	ching a number of holes in a sheet is k	known as		CO4- R	
	(a) l	Perforating (b) Parting	(c) Notching	(d) Lancing		
8.	As the thickness of sheet is increased the clearance needed will also					
	(a) i	ncrease	(b) decrease			
	(c) 1	no effect	(d) first decrease then inc	rease		
9.	Inje	ction moulding is a type of			CO5- R	
	(a) l	Die casting	(b) Centrifugal casting			
	(c) S	Squeeze casting	(d) Investment casting			
10.	Plastic bottles are manufactured using the process of					
	(a) 1	plow moulding	(b) injection moulding			
	(c) a	atomizing	(d) die casting			
		PART – B (S	5 x 2= 10Marks)			
11.	Mei	ntion few applications of centrifugal ca	asting		CO1- R	
12.	. Why shielding of weld area during welding is required?					
13.	. Define metal forming					
14.	List down some of the special forming process?					
15.	Def	ine film blowing process.			CO5- U	
		PART – C	(5 x 16= 80Marks)			
16.	(a)	Explain about various properties req Or	uired for the moulding sand	CO1- U	(16)	
	(b)	Explain about various sand casting dremedies for those defects	efects and explain the	CO1- U	(16)	
17.	(a)	Explain about submerged arc weldin Or	g process with neat sketch	CO2- App	(16)	
	(b)	Explain about various welding deference for those defects.	ects and explain the remedie	s CO2- App	(16)	

18. (a) With a neat sketch, explain about the extrusion process and its CO3-U (16)types. Or (b) (i) Distinguish between wire drawing and tube drawing with a CO3-U (8) neat sketches. CO₃- U (8) (ii) Explain the types of rolling mills with neat sketches. 19. (a) Explain about different stretch forming operations in sheet metal CO4-U (16)work with figure. Or (b) Enumerate rubber pad forming process with suitable sketch. CO4-U (16)20. (a) Sketch and explain the principle and working of injection CO5-U (16)moulding process and its types. (b) Explain about thermoforming process and its types with neat CO5-U (16)sketch