Roll No.

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<b>COER University</b> END SEMESTER EXAMINATION, EVEN SEMESTER, 2023-24									
Time Program I Course Co	Name ode	: 3 hour : B Tech : BTME403	Semester Branch Course Name	: IV : ME : Manufactu	Total	Marks: : echnolog	100 3y I		
O No 1	Attom	compulsory. No stude	ent is allowed to leave the exa	mination hall be	ore the completion of c		BL		
(a)	Evolui	pt Any Four Par	s. Each Question Car	ies 5 marks.		CO 1	1.2.		
(b)	Write	about technical and	anulacturing for a nation	a in manufact	ring	CO 1	1,2,		
(c)	Explai	n in brief verious	economic consideration	s in manufacti	ung.	CO 1	1.2.		
(d)	Write	material and manuf	fanulacturing process.	common item	2	CO 1	1,2,		
(e)	Write	in brief about the t	aditional steps required t	o convert an i	lea into a product.	CO 1	1,2,		
0. No 2	Atten	ont Any Four Par	Each Question Car	ios 5 Marks	17.	CO	BL		
(a)	Explai	n any five-casting	nattern with neat sketch	ies J marks.		CO 2	1,2,		
(b)	Explai	n the various sand	properties by giving its s	ignificance		CO 2	1,2,		
(c)	Write	about the types of	properties by giving its s	ignineanee.		CO 2	1,2,		
(d)	The he 200 m Assun	eight of the down-s $m^2$ . The cross-section of the losses, calc	prue is 175mm and it cro onal area of the horizont ulate the time (in second	ss-sectional ar al runner is als s) required to t	ea at the base is to 200 mm2. ill a mold cavity	CO 2	1,2,3		
(e)	Explai	in any five casting	defects with causes and r	emedies.		CO 2	1,2,		
Q. No 3	Atten	ant Any Four Par	ts Each Question Car	ries 5 Marks.		СО	BL		
(a)	Differ	entiate between ho	t working and cold work	ng in forming		CO 3	1,2,		
(b)	Descri	be in brief about v	arious forging process w	th neat sketch		CO 3	1,2,		
(c)	A 20 r final s assum	nm x 20 mm x 160 ize of 10 mm x 40 ing the coefficient en as 70 N/mm <sup>2</sup> A	mm copper plate is forg mm x160 mm. Determin of friction to be 0.2, the ssume no strain hardenir	ed between tw e the peak for ensile yield st	o flat dies to a ging force, ress of copper can	CO 3	1,2,		
(d)	Explai	in in brief about va	rious extrusion process.	<u>v</u>		CO 3	1,2,		
(e)	A stee mm at workp	l wire is drawn fro a speed of 1.5 m/s iece die interface i ed.	m an initial diameter of 1 . The die angle is 120. T s 0.1 and K=150 MPa. C	4 mm to a fin the coefficient alculate the dr	al diameter of 12 of friction at the awing power	CO 3	1,2,		

 0. No 4	Attempt Any Two Parts. Each Question Carries 10 Marks.	СО	BL
(a)	Explain various cutting operations in sheet metal working with neat sketch.	CO 4	1,2,3
 (b)	Explain various types of die used in press for sheet metal working.	CO 4	1,2,3
(c)	Estimate the blanking force to cut a blank 25 mm wide and 30 mm long from a 1.5 mm thick metal strip, if the ultimate shear stress of material is 450 N/mm <sup>2</sup> . Also	CO 4	1,2,3
	determine the work done if the percentage penetration is 25% of material thickness.		

		Attempt Any Two Parts, Each Question Carries 10 Marks	CO	BL
	Q. No 5	Attempt Any Two Parts, Each Question Carries To Planks	CO 5	123
-	(a)	Explain powder metallurgy in brief by giving its steps.	05	120
	(h)	Differentiate between jigs and fixture. Write the advantages of jigs and fixture.	CO 5	1,2,3
9	(0)	Explain the method of processing of plastic.	CO 5	1,2,3
	(C)			

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