A	Reg. No. :						
Question Paper Code: 53702							
B.E./B.Tech. DEGREE EXAMINATION, NOV 2018							
Third Semester							
	Mechanical Engineering						
15UME302 -MANUFACTURING TECHNOLOGY-I							
(Regulation 2015)							
Du	ation: Three hours	Maximum: 100 Marks					
	Answer A	LL Questions					
	PART A - $(10 \text{ x } 1 = 10 \text{ Marks})$						
1.	The pattern used for mass production is	CO1- R					
	(a) Match plate pattern	(b) Split pattern					
	(c) Skeleton pattern	(d) Single plate pattern					
2.	Which of the following defects in casting permeability in sand?	can occur when there is low CO1- R					
	(a) Rough surface (b) Blow holes	(c) Hot tears (d) Drop					
3.	Which of the following welding proceeder electrode?	cess uses non-consumable CO2-U					
	(a) Gas tungsten arc welding (TIG)	(b) Shield metal arc welding					
	(c) Carbon di oxide shield welding	(d) Gas metal arc welding					
4.	Heat is created by the chemical reaction in	n CO2- U					
	(a) Resistance welding	(b) Oxyacetylene welding					
	(c) Tungsten arc welding	(d) Thermit welding					
5.	The cold working of metal is accomplishe	d at CO3- U					
	(a) Below recrystallization temperature	(b) Above recrystallization temperature					
	(c) Recrystallization temperature	(d) Any of the above					

6.	All processes are formed in both hot and cold working except			CO3- R			
	(a) F	Forging	(b) Piercing	(c) Drawing	(d) Extrusic	n	
7.	Pune	Punching a number of holes in a sheet is known as				CO4- R	
	(a) F	Perforating	(b) Parting	(c) Notching	(d) Lancing		
8.	Shea	Shearing the sheet into two or more pieces is known as				CO4- R	
	(a) F	Perforating	(b) Parting	(c) Notching	(d) Lancing		
9.	Inje	ction moulding is a	a type of			CO5- R	
	(a) I	Die casting		(b) Centrifugal casting			
	(c) S	Squeeze casting		(d) Investment casting			
10.	Tubes for shaving cream and tooth paste are made by					CO5- R	
	(a) F	Forward extrusion		(b) Backward extrusion			
	(c) I	mpact extrusion		(d) All of the above			
			PART – B (5 x 2	2= 10Marks)			
11.	Nan	ne any four types o	of pattern allowances.			CO1- R	
12.	State the advantages of submerged arc welding.				CO2- R		
13.	State the differences between hot and cold working. CO3- F					CO3- R	
14.	State the differences between hydro forming and rubber pad forming.			CO4- R			
15.	State	e the differences be	etween thermosetting a	and thermoplastic polyme	rs.	CO5- U	
PART – C (5 x 16= 80Marks)							
16.	(a)	Briefly explain advantages and li	1	ess in casting. State it	s CO1-U	(16)	
Or							
	(b)		h briefly explain about ges and limitations.	centrifugal casting.	CO1- U	(16)	
17.	(a)		h briefly explain frictions.	on welding process.	CO2- App	0 (16)	
			Or				

- (b) Explain the resistance spot welding process with a neat sketch. CO2- App (16) State its application and limitations.
- 18. (a) With neat sketches explain the following forging operations with CO3-U (16) examples.
 - (i) Upsetting
 - (ii) Bending
 - (iii) Swaging
 - (iv) Fullering

Or

	(b)	(i) Distinguish between wire drawing and tube drawing with a neat sketches.	CO3- U	(8)
		(ii) Explain the types of rolling mills with neat sketches.	CO3- U	(8)
19.	(a)	Explain the various metal forming operations performed by press with suitable example.	CO4- U	(16)
		Or		
	(b)	With a neat sketch explain about explosive forming process.	CO4- U	(16)
		State its advantages and limitations.		
20.	(a)	With neat sketches explain injection moulding process.	CO5- U	(16)
		State its advantages and limitations Or		
	(b)	Explain the working principle of blow moulding process.	CO5- U	(16)
		State its advantages and limitations.		