

17AU36

Third Semester B.E. Degree Examination, July/August 2021 **Manufacturing Process - I**

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

1	a.	Define manufacturing and explain the classification of manufacturing process.	(10 Marks)	
	b.	List out the advantages and disadvantages of casting process.	(08 Marks)	
	c.	Define Pattern.	(02 Marks)	
2	a.	Explain with sketches, different pattern allowances.	(10 Marks)	
	b.	Draw a neat sketch of a gating system and explain briefly.	(10 Marks)	
3	a.	With neat sketch, explain the following:		
		i) Jolt machine ii) Squeeze type.	(10 Marks)	
	b.	What are the steps involved in making shell mould? And write the advantage	ges of shell	
		moulding.	(10 Marks)	
4	a.	Define pressure die casting and explain with a neat sketch. Hot chamber of	dies casting	
		process.	(10 Marks)	
	b.	With neat sketch, explain the working of cupola furnace.	(10 Marks)	
5	a.	Define welding. Broadly classify welding process with examples and its applicat	ions.	
			(12 Marks)	
	b.	What is Flux shielded metal arc welding? With neat sketch, explain.	(08 Marks)	
6	a.	Explain Tungsten inert gas welding process with a neat sketch and mention its advantages		
		and limitations.	(10 Marks)	
	b.	How many types of flames produced in gas welding process? And explain brief	ly with neat	
		sketches.	(10 Marks)	
7		Explain the principle of resistance welding.	(08 Marks)	
	b.	With neat sketch, explain the spot welding and mention the advantages of spot w	relding. (12 Marks)	
8	a.	Explain the LASER welding with a neat sketch.	(10 Marks)	
	b.	Write a note on any five causes and remedies of welding defects.	(10 Marks)	
9	a.	Write the principles of both soldering and brazing and also list different types.	(10 Marks)	
	b.	List out the advantages and disadvantages of soldering.	(05 Marks)	
	c.	Briefly explain Torch brazing process.	(05 Marks)	
10	a.	List out the various inspection methods. Explain in brief.	(08 Marks)	
	b.	Write a short note on the following:		
		i) Ultrasonic inspection		
		ii) Radiography inspection		
		iii) Eddy current inspection.	(12 Marks)	