

Enrollment No: _____ Exam Seat No: _____

C.U.SHAH UNIVERSITY

Summer Examination-2017

Subject Name : Manufacturing processes -II

Subject Code : 4TE05MPR1

Branch : B.Tech (Automobile, Mechanical)

Semester : 5

Date :01/04/2017

Time :2:30 To 5:30

Marks :70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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- Q-1** **Attempt the following questions:** **14**
- a) What is 'arc blow'?
 - b) State the function of chills in casting
 - c) State the difference between green sand and dry moulding sand
 - d) Define the Draft allowance
 - e) How is polarity defined in DC welding source?
 - f) Define the Honing
 - g) Define the Permeability
 - h) Define the Collapsibility
 - i) What is 'arc blow'?
 - j) What is 'misrun' in a casting?
 - k) What is recrystallization temperature?
 - l) What is rapping allowance?
 - m) What is a pattern maker's rule?
 - n) Define the Sweep

Attempt any four questions from Q-2 to Q-8

- Q-2** **Attempt all questions**
- a) Importance of recrystallization temperature for mechanical working processes. **03**
 - b) Explain the importance of Manufacturing Processes in context of recent development. **04**
 - c) Write differences between Hot and Cold working processes. **07**
- Q-3** **Attempt all questions**
- a) Explain when casting is preferred over forming. **03**
 - b) Explain the functions of **04**



	<ul style="list-style-type: none"> • Facing sand • Backing sand • System sand, and • Core sand 	
	c) What is a 'pattern'? Explain the advantages and limitations of plasters over plastics as pattern materials.	07
Q-4	Attempt all questions	
	a) Explain the principle of Arc welding.	03
	b) State the parameters affecting the arc in arc welding.	04
	c) Sketch the cupola furnace. Describe its construction and working.	07
Q-5	Attempt all questions	
	a) Sketch and label four positions of welding.	03
	b) Enlist the types of flame for gas welding and describe anyone with neat sketch.	04
	c) Classify the metal joining processes.	07
Q-6	Attempt all questions	
	a) State the advantages and limitations of forging process.	03
	b) Discuss the function of flux during welding. State the ingredients of flux.	04
	c) Explain the basic procedure in SAW with a neat sketch. What is "back up" in SAW?	07
Q-7	Attempt all questions	
	a) Explain the cutting operation for press working.	03
	b) Enlist types of super finishing processes. Discuss the selection criteria for appropriate super finishing process.	04
	c) What is a ceramic? List the commonly used ceramic matrix composites processing techniques. State the applications of ceramic matrix composites.	07
Q-8	Attempt all questions	
	a) Enlist the Plastic manufacturing processes.	03
	b) Distinguish between wire drawing and tube drawing with sketches.	04
	c) Discuss the defects, causes and remedies of forging defects	07

