Seat No.:	Enrolment No.
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-V (NEW) - EXAMINATION - SUMMER 2017** 

Subject Code:2152506 Date:		Date: 05/05/2017	
-		: Foundry Technology	
		Total Marks: 70	
Instruction			
		pt all questions.	
2.	Make	suitable assumptions wherever necessary.	
3.	Figure	es to the right indicate full marks.	
			MARKS
$\mathbf{Q}$	.1	<b>Short Questions</b>	14
	1	Define: Investment casting.	
	2	Define: Die casting.	
	3	Define: Sand casting.	
	4	Write meaning of permeability.	
	5	Write meaning of Green compressive strength.	
	6	Write meaning of mould hardness.	
	7	Fluidity is measure of	
	8	Write function of runner.	
	9	Write function of riser.	
	10	Write function of gates.	
	11	Porosity in casting occurs because of	
	12	Automobile parts are manufactured using Casting	g.
	13	Binders are used for in mould.	
	14	Write function of core print.	
Q	.2 (a)	J J1 1	03
	<b>(b)</b>	• • • • • • • • • • • • • • • • • • • •	04
	<b>(c)</b>	Write how pattern is different than casting? Explain patt	tern <b>07</b>
		color coding system.	
		OR	
	(c)	Write pattern allowances using schematic diagram.	07
Q		<u> </u>	03
	<b>(b)</b>	Compare sand casting, investment casting and die cast	ting 04
	(.)	using various characteristic.	07
	(c)	Write short note on Die casting	07
0	2 (a)	OR White functions of various hand tools used in foundary	02
$\mathbf{Q}$		Write chart note on mould metarials used for me	03
	<b>(b)</b>	Write short note on mould materials used for momentum.	ould <b>04</b>
	(a)	Write steps for mould making using two piece patterns.	07
Q	(c) .4 (a)	Write advantage, disadvantages of casting process.	03
Q.	(b)	Write application of die casting, investment casting	04
	(c)	Explain centrifugal casting with neat sketch.	07
	(0)	OR	07
Q	.4 (a)	Write short note on visual inspection of casting	and <b>03</b>
Q.	( )	identification of related defect.	
	<b>(b)</b>	Explain with cause and remediates (1) Crack (2) shrinka	ge. <b>04</b>
	(c)	Write casting quality inspection techniques. Explain	_

one NDT in detail.

Q.5	(a)	Draw part gating system showing different gating	03
		elements.	
	<b>(b)</b>	Differentiate between bottom gating system and part gating system in detail.	04
	(c)	How modernization and mechanization can be adopted in any foundry? Explain in detail.	07
		OR	
Q.5	(a)	Write short note on shell molding.	03
	<b>(b)</b>	Explain Antioch casting in detail.	04
	(c)	As an engineer if you are allocated duty to improve work environment and safety in foundry what steps you will take?	07

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