

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2018****Subject Code:2152506****Date:27/11/2018****Subject Name:Foundry Technology****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) Explain the requirement of foundry process in manufacturing industry.	03
	(b) Compare foundry process with other forming processes.	04
	(c) Explain the general procedure of Casting process.	07
Q.2	(a) Enlist different types of material used for making pattern.	03
	(b) Enlist different types of allowances provided in the cast pattern. Which one of them is Negative allowance?	04
	(c) Enlist different types of pattern. Explain any three of them with neat sketch.	07
	OR	
	(c) Explain the functions of each part of Gating system. Enlist the name of colors used in the cast pattern.	07
Q.3	(a) In general, metallic Pipeline is manufacture with the help of which casting process?	03
	(b) Explain function of Core in foundry process	04
	(c) Enlist types of Moulding Machines. Explain any one of them with neat sketch.	07
	OR	
Q.3	(a) Write the difference between Sand and Clay.	03
	(b) Explain the functions of Riser.	04
	(c) Slush Casting: explain in brief with neat sketch.	07
Q.4	(a) Enlist different Non-destructive Testing are carried out for cast product.	03
	(b) Explain Liquid penetrant test with neat sketch.	04
	(c) Explain Investment Casting Process with neat sketch, advantages, limitations and applications.	07
	OR	
Q.4	(a) What is difference between porosity and blow hole.	03
	(b) Enlist different types of furnaces used in foundry industries.	04
	(c) Explain centrifugal casting with neat sketch, advantages, limitations and applications.	07
Q.5	(a) In general, which area of centrifugal cast product is having highest possibilities of defects?	03
	(b) Explain directional solidification with neat sketch.	04
	(c) Enlist types of defects in the casting product. Explain any three of them with neat sketch.	07
	OR	
Q.5	(a) Enlist type of various cast-product finishing process.	03
	(b) Explain the difference between Shot blasting and Sand Blasting.	04
	(c) Explain the role of automation in advance Foundry industries.	07
