

Reg. No.:

Name :



# VIT<sup>®</sup>

**Vellore Institute of Technology**

(Deemed to be University under section 3 of UGC Act, 1956)

**Continuous Assessment Test I – January 2023**

Programme	: B.Tech. Mechanical Engineering	Semester	: Winter 2022-23
Course Title	: Metal Casting and Welding	Code	: BMEE302L
Faculty	: Dr. Manojkumar	Slot	: F1 + TF1
	: Dr. R. Narayanan	Class Nbr	: CH2022235001649
Time	: 1 ½ hours	Class Nbr	: CH2022235001648
		Max. Marks	: 50

**Answer any FIVE questions (5 x 10 = 50 Marks)**

Q.No.	Sub. Sec.	Question Description	Marks
1.		With the neat sketch explain the sand-casting terminologies and sand properties for improving the surface finish of the casted product.	10
2.		Elucidate the types of pattern and cores used in casting technique with the sketch. Discuss the importance of the chaplet.	10
3.		What are the major types of sand molds? What are their characteristics?	10
4.		Describe a method of producing bronze idol with the suitable sketch. You are permitted to use ceramic slurry.	10
5.		Describe a suitable casting method for producing aluminium Metal Matrix Composite (MMC). Mention the advantages and disadvantages.	10
6.		Clarify why squeeze casting products have better mechanical properties, dimensional accuracy, and surface finish than do expendable-mold processes.	10