

U.S.N.

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

April 2024 Semester End Main Examinations

Programme: B.E.

Branch: Mechanical Engineering

Course Code: 23ME3PCMAP / 22ME3PCMAP

Course: Manufacturing Processes

Semester: III

Duration: 3 hrs.

Max Marks: 100

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.			UNIT - I	CO	PO	Marks
	1	a)	Broadly classify the manufacturing processes. Explain in detailed.	CO1	PO1	10
		b)	List the advantages, disadvantages and applications of casting process.	CO1	PO1	10
			OR			
	2	a)	Describe in detailed the steps involved in casting process.	CO2	PO1	10
		b)	Explain various types of pattern allowances. Draw neat sketches wherever necessary.	CO2	PO1	10
			UNIT - II			
	3	a)	Draw a neat sketch of a gating system showing all the elements & explain their functions.	CO2	PO1	10
		b)	With neat sketch explain the progressive and directional solidification.	CO2	PO1	10
			OR			
	4	a)	Describe with neat diagram Investment casting process.	CO4	PO1	10
		b)	List any five types of sand casting defects stating their features and reasons.	CO3	PO1	10
			UNIT-III			
	5	a)	With neat sketch explain the principle operation of Thermit welding process.	CO3	PO1	10
		b)	Explain with diagram the formation of different weld zones.	CO3	PO1	10
			UNIT-IV			
	6	a)	Describe the different methods of powder preparation. Draw the sketches wherever necessary.	CO4	PO1	10

		b)	With neat sketches describe the Powder forging, Powder Extrusion techniques.	CO4	PO1	10
			UNIT - V			
	7	a)	With neat diagram explain the Fused Deposition process.	CO4	PO1	10
		b)	With neat diagram explain Selective Laser Sintering process.	CO4	PO1	10

B.M.S.C.E. - ODD SEM 2023-24