Code No.: ME304PC | R20 | H.T.No. | | | 8 | R | | | | | |

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
II–B.TECH–I–Semester End Examinations (Supply) - December- 2024
PRODUCTION TECHNOLOGY
(MECH)

[Time: 3 Hours] **[Max. Marks: 70]**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A **(20 Marks)**

1. a)	What is the function of core in metal casting?	[2M]
b)	List out the various pattern allowances.	[2M]
c)	What is the difference between resistance welding and thermit welding?	[2M]
d)	How many types of welding joints.	[2M]
e)	Write the applications of friction welding.	[2M]
f)	Define heat affected zone.	[2M]
g)	Define hot working process.	[2M]
h)	What do you mean by wire drawing?	[2M]
i)	Compare open die forging and closed die forging.	[2M]
j)	Write the difference between hot extrusion and cold extrusion.	[2M]

PART-B **(50 Marks)**

2.	Explain the various types of pattern allowances with neat sketch.	[10M]
	OR	
3.	Describe the Die casting and investment casting process with neat sketch.	[10M]
4.	Explain the principle of Arc welding and Thermit welding with a neat sketch.	[10M]
	OR	
5.	Discuss about oxy-fuel gas cutting processes with suitable sketch and mention their applications, limitations.	[10M]
6.	Differentiate between TIG welding and MIG welding processes.	[10M]
	OR	
7.	Explain the Friction Stir welding process with neat sketch. Also, write the welding defects.	[10M]
8.	Explain the various types of operations performed in sheet metal operations.	[10M]
	OR	
9.	Describe the types of rolling mills with suitable sketches.	[10M]
10.	Discuss about high energy rate forming methods with the proper sketches.	[10M]
	OR	
11.	Explain forward and backward extrusion process with the proper sketches.	[10M]

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