Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025	
Date: 16 – 12- 2025	**Time:** 09:30am – 12:30pm

School: SOE	**Program:** B.Tech	
Course Code : MEC2022	**Course Name:** Production Technology	
Semester: III	**Max Marks**: 100	**Weightage:** 50%

CO - Levels	CO1	CO2	CO3	CO4	CO5	CO6
Marks	12	12	12	12	26	26

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks. 10Q x 2M=20M

1.	List the 5 M's require for carrying out the manufacturing activity	2 Marks	L1	CO1
2.	List the various Welding Joints	2 Marks	L1	CO2
3.	Define Forging	2 Marks	L1	CO3
4.	What do you mean by High Energy Rate Forming	2 Marks	L1	CO4
5.	List the types of Cutting Tools with examples	2 Marks	L1	CO5
6.	What do you mean by Tool Wear?	2 Marks	L1	CO5
7.	List the Factors that Affects Tool Life	2 Marks	L1	CO5
8.	List the various types of machine tools commonly used in workshops	2 Marks	L1	CO6
9.	List what are all the operations performed on a Drilling Machine	2 Marks	L1	CO6
10.	List the difference between Shaper and Planer	2 Marks	L1	CO6

Part B

Answer the Questions. **Total Marks 80M**

11.		Discuss the basic sequence of the operations required for making a casting	**10 Marks**	**L2**	**CO1**
		Or			
12.		With the help of a sketch explain the True Centrifugal Casting Process	**10 Marks**	**L2**	**CO1**
13.		List the difference between Arc Welding and Gas Welding	**10 Marks**	**L2**	**CO2**
		Or			
14.		With the help of a sketch explain the Electron Beam Welding process	**10 Marks**	**L2**	**CO2**
15.		Explain any 4 Forging operations with the help of a sketch	**10 Marks**	**L2**	**CO3**
		Or			
16.		With the help of sketches explain Impact and Hydrostatic Extrusion processes	**10 Marks**	**L2**	**CO3**
17.		Explain any 4 Sheet Metal Cutting Operations with the help of sketches	**10 Marks**	**L2**	**CO4**
		Or			
18.		With the help of sketch explain the Stand-off operation method of Explosive Forming process	**10 Marks**	**L2**	**CO4**
19.	**a.**	In machining a mild steel workpiece with Carbide tool, the life of the tool was found to be 1 hour and 40 minutes at a spindle speed of 50 mpm. Determine the tool life if it has to operate at a speed of 30% higher than the initial cutting speed. Also calculate the cutting speed if the tool is required to have a life of 2 hours and 45 minutes. Assume Taylors exponent n=0.28	**10 Marks**	**L3**	**CO5**
	b.	Discuss the various desirable Properties of Cutting Fluid	**10 Marks**	**L2**	**CO5**
		Or			
20.	**a.**	The total life for a HSS tool is expressed by the relation VT1/7 = C1 and for tungsten carbide VT1/5 = C2. If the tool life for a cutting speed of 24 m/min is 128 min, compare the life of the two tools at a speed of 30 m/min.	**10 Marks**	**L3**	**CO5**
	b.	With the help of a sketch explain the Single Point Cutting Tool Nomenclature	**10 Marks**	**L2**	**CO5**
21.	**a.**	With the help of a sketch explain the specification of Lathe Machine	**10 Marks**	**L2**	**CO6**
	b.	With the help of sketches differentiate between Up Milling and Down Milling	**10 Marks**	**L2**	**CO6**
		Or			
22.	**a.**	With the help of sketches explain any 4 drilling operations	**10 Marks**	**L2**	**CO6**
	b.	With the help of a sketch explain the Centreless Grinding & Internal Centreless Grinding operations	**10 Marks**	**L2**	**CO6**