Roll No.											

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 24 – 12- 2025 **Time:** 01:00pm – 04:00pm

School: SOE	**Program:** Mechanical Engineering	
Course Code: MEC4005	**Course Name:** Production Techniques- II	
Semester: V	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**	**CO6**
Marks	**10**	**10**	**20**	**20**	**20**	**20**

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.	What is single point cutting tool ?	**2 Marks**	**L1**	**CO1**
2.	What is tool life?	**2 Marks**	**L1**	**CO2**
3.	What is diffusion wear in metal cutting?	**2 Marks**	**L1**	**CO2**
4.	What's the function of tail stock?	**2 Marks**	**L1**	**CO3**
5.	What are the different methods of taper turning operation?	**2 Marks**	**L1**	**CO3**
6.	Classify gear cutting machine.	**2 Marks**	**L2**	**CO5**
7.	List out the examples of artificial abrasives used in grinding.	**2 Marks**	**L1**	**CO6**
8.	What are the bonding materials used in grinding wheel?	**2 Marks**	**L1**	**CO6**
9.	What is Numerical Control (NC) machine?	**2 Marks**	**L1**	**CO4**
10.	What are the types of CNC machine centers?	**2 Marks**	**L1**	**CO4**

Part B

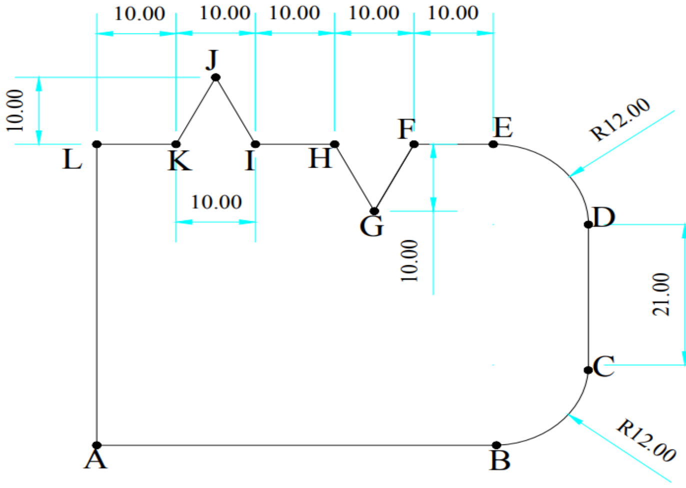
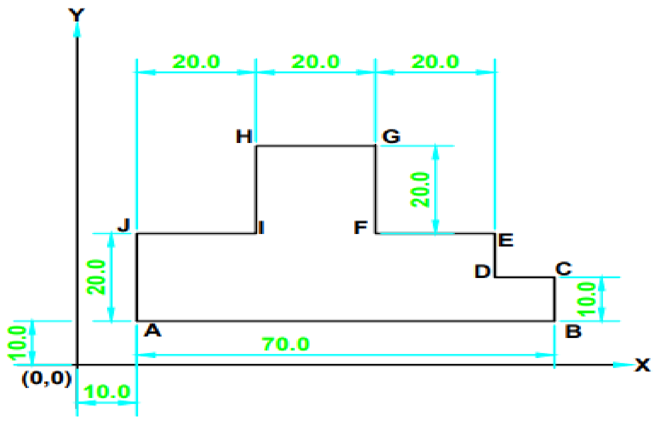
Answer the Questions. **Total Marks 80M**

11.	**a.**	Explain the continuous, discontinuous chip and continuous chip with build-up edges.	**10 Marks**	**L2**	**CO1**
	b.	Summarize and explain the properties of cutting fluids?	**10 Marks**	**L2**	**CO2**
		Or			
12.	**a.**	Explain the important characteristics of cutting fluids.	**10 Marks**	**L2**	**CO1**
	b.	Explain with neat sketch single point cutting tool and label the parts.	**10 Marks**	**L2**	**CO2**

13.	**a.**	Explain any five lathe machine operation performed on the work piece	**10 Marks**	**L2**	**CO3**
	b.	Explain the parts of capstan lathe machine with simple sketch	**10 Marks**	**L2**	**CO5**
		Or			
14.	**a.**	Explain with sketch the parts of drilling machine.	**10 Marks**	**L2**	**CO3**
	b.	Explain taper turning operations by form tool and swiveling of compound rest on lathe machine.	**10 Marks**	**L2**	**CO5**

15.	**a.**	Classify the Gear Cutting Processes and briefly explain gear hobbing and gear shaping.	**10 Marks**	**L4**	**CO5**
	b.	List the parts with sketch and explain centre-less grinding machine.	**10 Marks**	**L4**	**CO6**
		Or			
16.	**a.**	Demonstrate the principle and with sketch explain gear broaching working.	**10 Marks**	**L4**	**CO5**
	b.	List and explain the desirable properties of abrasives material	**10 Marks**	**L4**	**CO6**

17.	**a.**	Solve the program in absolute system for the diagram given below for face milling operation with diameter of milling cutter tool as 100 mm, spindle speed 500 rpm, feed is 5mm/min and depth of cut is 5mm. All the dimensions are in mm as mentioned in the fig	**20 Marks**	**L3**	**CO4**

					
Or					
18.	a.	Solve the program in Incremental system for the diagram given below for face milling operation with diameter of milling cutter tool as 100 mm, spindle speed 750 rpm, feed is 5mm/min and depth of cut is 3mm. All the dimensions are in mm as mentioned in the fig 	**20 Marks**	**L3**	**CO4**