

## Model Question Paper-1 with effect from 2019-20 (CBCS Scheme)

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### Fourth Semester B.E. Degree Examination Metal Cutting and Forming

TIME: 03 Hours

Max. Marks: 100

Note: Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module -1			*Bloom's Taxonomy Level	Marks
Q.01	a	With a neat sketch explain the Orthogonal and oblique cutting.	L2	08
	b	What do you mean by 'tool signature'?	L2	04
	c	With a neat sketch explain the types of chips formed during metal cutting	L1	08
OR				
Q.02	a	Explain the accessories of the Lathe machine.	L1	05
	b	List and briefly explain the operations carried out on Lathe.	L3	10
	c	How Turret lathe differ from the Capstan Lathe.	L2	05
Module-2				
Q. 03	a	Explain the classification of a Milling machine.	L1	08
	b	What is Indexing? Explain the Differential indexing.	L3	04
	c	With a neat sketch explain any one type of Drilling machine.	L1	08
OR				
Q.04	a	With a sketch explain the quick return mechanism of a shaper.	L3	08
	b	Explain the belt drive mechanism of a planer machine.	L4	06
	c	Give the classification of Grinding machines.	L2	06
Module-3				
Q. 05	a	Explain the mechanisms of tool wear.	L1	06
	b	Define 'tool life'? List the factors affecting on tool life.	L2	06
	c	Explain the effect of machining parameters on surface finish.	L4	08
OR				
Q. 06	a	Write a note on economics of machining process.	L3	04
	b	Explain the properties and functions of cutting fluids	L2	08
	c	Explain the choice of cutting speed and feed for a tool life.	L4	08
Module-4				

Q. 07	a	Differentiate between the hot working and cold working?	L4	04
	b	With a neat sketch explain the press forging operation.	L2	08
	c	Explain the defects of rolling	L1	04
	d	Write a note on 'Angle of bite' in rolling	L3	04
OR				
Q. 08	a	Define Drawing? Explain the process of pipes drawing	L2	08
	b	List the variables of the drawing process	L2	04
	c	Explain the various types of extrusion processes.	L2	08
<b>Module-5</b>				
Q. 09	a	Explain the operations that can perform in the sheet metal.	L1	10
	b	How do you calculate the drawing force in a sheet metal operation	L3	04
	c	Explain the variable of a sheet metal drawing process.	L2	06
OR				
Q. 10	a	How do you calculate the force requirement in the bending operations, explain?	L2	08
	b	Explain the followings with respect to bending operations, 1. Embossing 2. Coining and 3. Progressive die.	L2	12

\*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of questions.