

## Model Question Paper-2 with effect from 2019-20 (CBCS Scheme)

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### Fourth Semester B.E. Degree Examination Manufacturing processII (18IP44)

TIME: 03 Hours

Max. Marks: 100

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module -1			*Bloom's Taxonomy Level	Marks
Q.01	a	Sketch and explain the nomenclature of a single point cutting tool.	V	10
	b	Explain the mechanism of chip formation.	II	6
	c	List the assumptions made in Merchant's circle diagram.	I	4
<b>OR</b>				
Q.02	a	Starting from fundamentals derive the shear plane angle relationship.	VI	6
	b	List and explain the different types of tool wear.	II	8
	c	Briefly explain different types of chips formed in machining.	V	6
<b>Module-2</b>				
Q. 03	a	Write brief notes on any three of the following cutting tool materials: (i) HSS (ii) Carbides (iii) Ceramics (iv) Alloy steel.	I	9
	b	List the various properties of a cutting fluid.	I	5
	c	With a neat sketch explain the different sources of heat produced in machining.	V	6
<b>OR</b>				
Q.04	a	Give the classification of lathe machines.	I	4
	b	Differentiate between capstan and turret lathe.	IV	8
	c	With a neat sketch explain the construction of a shaping machine.	V	8
<b>Module-3</b>				
Q. 05	a	Describe the twist drill bit nomenclature using sketches.	VI	8
	b	State and briefly explain the different operations performed on a drilling machine.	VI	12
<b>OR</b>				
Q. 06	a	Explain briefly any two types of milling operations.	II	8
	b	Differentiate between up-milling and down-milling with neat sketches.	IV	6
	c	List the various methods of indexing and explain any one of them.	I, V	6
<b>Module-4</b>				
Q. 07	a	Explain with a neat sketch the principle and working of centerless grinding.	II	8
	b	List and explain different types of abrasives used in grinding process.	V	6
	c	How are grinding wheels marked (coded)? Describe the Indian standard marking system.	I, VI	6
<b>OR</b>				
Q. 08	a	With a neat sketch explain the vertical broaching machine.	II	10
	b	What is broaching? Mention advantages and disadvantages of broaching process.	I, V	6
	c	Sketch the enlarged tooth form of a broach and show the different angles.	IV	4
<b>Module-5</b>				
Q. 09	a	List the operations and applications of polishing and buffing.	I	6
	b	Discuss lapping, honing, and super finishing processes with neat sketches.	VI	10
	c	How would you classify the non-traditional machining processes? List them	I	4
<b>OR</b>				
Q. 10	a	Briefly describe the principle of abrasive jet machining. List its advantages.	VI	8
	b	Explain how EDM process is performed.	V	8
	c	List the advantages and disadvantages of laser beam machining?	I	4