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

USN | | | | | | | | | | |

Fourth Semester B.E. Degree Examination

Manufacturing process II (18IP44)

TIME: 03 Hours **Max. Marks: 100**

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

		Module -1	*Bloom's Taxonomy Level	Marks
Q.01	a	Explain the various elements of a single point cutting tool, with the help of a neat sketch.	II	9
	b	Discuss the various types of chips produced during metal machining.	VI	6
	c	Differentiate between orthogonal, and oblique cutting.	IV	5
		OR		
Q.02	a	Explain Merchant force circle, stating assumptions.	II	9
	b	Define tool wear. Discuss various types of tool wear.	I, VI	8
	c	A MI steel bar is turned with HSS tool. Determine the tool life for a cutting velocity e of 40 meter per minute.The tool life equation is VT^0. 2=80. Determine the cutting speed for 60 minutes tool life.	V	3
		Module-2		
Q. 03	a	Discuss the heat zones and temperature distribution in metal cutting.	VI	8
	b	Write a brief note on HSS.	I	4
	c	What are cutting fluids? Discuss the various types of cutting fluids	I, VI	8
		OR		
Q.04	a	Differentiate between a capstan and turret lathes.	IV	8
	b	Explain the principal parts of a capstan lathe with a neat sketch.	II	6
	c	State the various operations which may be performed on a lathe.	VI	6
		Module-3		
Q. 05	a	List the various types of drilling machines.	IV	4
	b	Sketch and Explain a radial drilling machine.	II	8
	c	With a neat sketch explain any four drilling operations.	II	8
		OR		
Q. 06	a	Differentiate between up-milling and down-milling with neat sketches	IV	8
	b	Explain the following: (i) plain milling, and (ii) face milling	II	6
	c	Describe the milling cutter nomenclature using sketches.	VI	6
		Module-4		
Q. 07	a	Explain with a neat sketch the principle and working of centerless grinding.	II	8
	b	Write short notes on: (i) Natural abrasives. (ii) Vitrified bonding process	I	8
	c	What are the factors to be taken into consideration while selecting a grinding wheel?	I	4
		OR		
Q. 08	a	Sketch the different elements of a pull broach and describe them briefly.	VI	8
	b	Draw the block diagram of anyone type of broaching machine and indicateits parts. Describe the machine in brief.	IV, VI	8
	c	List the advantages of broaching operation.	I	4
		Module-5		
Q. 09	a	Why surface finishing is an important manufacturing process? explain briefly.	II	5
	b	Discuss lapping, honing, and super finishing processes with neat sketches.	VI	10
	c	Explain the need for non-traditional machining processes.	V	5
		OR		

Q. 10	a	Explain ultrasonic machining process. Specify its process characteristics.	V,I	8
	b	Briefly describe the principle of abrasive jet machining. List its advantages.	VI	8
	c	Explain the function of dielectric fluid in EDM.	II	4