

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BVOC- SEMESTER- II EXAMINATION – SUMMER 2023

Subject Code:21120404

Date:21-07-2023

Subject Name:Basic of Manufacturing Processes

Time:10:30 AM TO 12:30 PM

Total Marks:50

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Explain in detail Cutting speed, Depth of cut and Feed.	05
	(b) Draw Geometry of single point cutting tool with tool angles.	05
Q.2	(a) Explain following lathe operations with sketch. (i) Facing. (ii) Grooving. (iii). Knurling. (iv) Boring. (v) Parting off.	05
	(b) Describe various types of chucks used on lathe machine.	05
OR		
	(b) Explain the functions of the basic parts of the lathe with neat sketches	05
Q.3	(a) Enlist various operations carried out on drilling machine. Explain any four with neat sketch.	05
	(b) Explain the following term which is used in drilling machine : Counter boring, Counter sinking, Spot-facing, Trepanning, Knurling	05
OR		
Q.3	(a) With figure explain the twist drill nomenclature.	05
	(b) Draw neat sketch of radial drilling machine and name its parts, explain its working	05
Q.4	(a) Explain in detail investment casting process.	05
	(b) What is gating system? What are its functions?	05
OR		
Q.4	(a) List the steps involved in the casting process.	05
	(b) List any two casting defects and give their causes and remedies	05
Q.5	(a) Explain the principle of spot welding process with its advantages and limitations.	05
	(b) Describe the types of flame obtained in oxy-acetylene gas welding with neat sketch.	05
OR		
Q.5	(a) Explain the principle of arc welding with neat sketch.	05
	(b) Discuss with neat sketch TIG welding process.	05
