

GUJARAT TECHNOLOGICAL UNIVERSITY**BVOC- SEMESTER-II EXAMINATION – WINTER 2022****Subject Code:21120404****Date:01-03-2023****Subject Name:Basic of Manufacturing Processes****Time:02:30 PM TO 04:30 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 Chip Formation Mechanism?	05
(b) Draw Geometry of a 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) Explain the functions of the basic parts of the lathe with neat sketches.	05
OR	
(b) Describe various types of chucks used on lathe machine.	05
Q.3 (a) Explain different types of reamers used in drilling.	05
(b) What is a mandrel?. Explain different types of mandrels.	05
OR	
Q.3 (a) Enumerate different types of drilling machine. Explain gang drilling machine and multi spindle drilling machine with neat sketch.	05
(b) Draw neat sketch of radial drilling machine and name its parts, explain its working	05
Q.4 (a) State the types of furnaces used in foundries.	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) Classify electrode used in arc welding.	05
(b) Describe the types of flame obtained in oxy-acetylene gas welding with neat sketch.	05
OR	
Q.5 (a) Define the following terms Flux, Filler materials, Electrode, Shielding gas,	05
(b) Explain the principle of spot welding process with its advantages and limitations.	05