



Note: 1) Question No. 1 is Compulsory.

- 2) Attempt any three questions from remaining five.
- 3) Draw Flow charts, block diagram, figures wherever required.
- 4) Numbers in bracket to right hand side indicates the marks.

Q. No. 1. Write in brief any four (5 marks each)

- (a) Classification of Machine tool (b) Indexing Methods in Milling (c) Blow Moulding
(d) Jig Boring Machine (e) Lathe accessories (f) Stopper rod mechanism (turret)

Qu. No. 2.

- (a) With a neat sketch draw the nomenclature of Twist Drill highlighting different parts and angles, and comment on its significance (10)
(b) List different types of Sawing machine; Differentiate between Power Hack Saw and Circular Band Saw (10)

Qu. No. 3.

- (a) Differentiate between Internal Broaching and Surface broaching? (10)
(b) What is Moulding with plastics? Differentiate between Injection Moulding with Compression Moulding (10)

Qu. No. 4.

- (a) Explain Back Gear Mechanism and its importance with reference to operations performed on Lathe Machine. (10)
(b) List the types of Indexing Methods in Milling Machine. Explain any one method in detail (10)

Qu. No. 5.

- (a) With diagram explain Quick Return Mechanism. Differentiate between Shaping Machine & Slotting Machine (10)
(b) How Milling Machine is classified? What is Up Milling & Down Milling (10)

Q. No. 6. Write short note on any four (5 marks each)

- (a) Taper Turning attachment in Lathe (b) Moulding Cycle (c) Tool Materials
(d) Work Holding Devices in Shaper (e) Difference between Capstan and Turret lathe