

**BE Semester-III (Mechanical Engineering) Question Bank
(Machining & Casting Processes)
All questions carry equal marks (10 marks)**

Q.1	Enumerate different types of drilling machine. Explain radial drilling machine and multi spindle drilling machine with neat sketch.
Q.2	Classify sawing machine. Explain vertical band saw machine with neat sketch. Describe various applications of sawing machine.
Q.3	Explain with neat sketch working of horizontal boring machine. State its advantages and limitations.
Q.4	Define the term pattern. List out the different types of pattern. Explain any three types of patterns.
Q.5	Explain the properties of moulding sand.
Q.6	Classify the types of foundry furnaces. Describe cupola furnace with neat sketch.
Q.7	Discuss Investment Casting Process.
Q.8	Discuss Shell moulding Process.
Q.9	Write short note on - Elements of Gating System
Q.10	Write short note on - Casting Defects
Q.11	Explain Hand tools used in mould making.
Q.12	Explain different work holding devices of lathe.
Q.13	Explain different operations performed with the help of a lathe
Q.14	Explain different types of milling cutters.
Q.15	Explain different indexing methods used in milling machine.
Q.16	Explain working of mechanical shaper with neat sketch.
Q.17	Write short note on - Capstan & Turret Lathe .
Q.18	Explain Automatic Lathe.
Q.19	Write short note on - Hydraulic Shaper
Q.20	Write short note on - Jig Boring Machine
Q.21	Write short note on - Cylindrical Grinding Machine
Q.22	Explain Gang Drilling machine and Pillar type of drilling machine.
Q.23	Explain working of Centerless grinding machine and types of centerless grinding operations.
Q.24	Explain working of crank and slotted lever mechanism of shaper machine.
Q.25	Explain the working of horizontal milling machine with neat sketch.
Q.26	Compare and differentiate the horizontal milling machine with vertical milling machine.
Q.27	Differentiate with proper reasons the up milling and the down milling.
Q.28	Explain different materials used for patterns.
Q.29	Draw a neat sketch of twist drill and specify the importance of each part.
Q.30	Explain gang milling, straddle milling and string milling.
Q.31	Explain different operations carried out on a drilling machine.
Q.32	Differentiate clearly three jaw chuck with four jaw chuck.
Q.33	With neat sketch explain the importance of drilling, boring and reaming operation.
Q.34	Explain the procedure to prepare sand mould.
Q.35	Explain the centrifugal casting process.
Q.36	Sketch different setups for the surface grinding machines and write their applications.
Q.37	Classify and explain different types of milling machines.
Q.38	Classify different types of lathes and explain importance of each.
Q.39	Sketch the different operations of lathe machine showing cutting parameters directions.
Q.40	Differentiate capstan lathe and turret lathe.