

SE / SEM-III / Mech / CBCS



Seat No. -

Total Marks- 80

Duration: 3 Hours

22 NOV 2019

- N.B. 1) First Question (Q.1) is Compulsory.
 2) Attempt any 3 questions from the remaining 5 (Q.2 - Q.6) questions.
 3) Figures to the right indicate full marks
 4) Proportionate and labelled free-hand sketches would do

- Q. 1 a) Draw and discuss working of Explosive Welding technique with its applications, advantages and limitations. 10
 b) What's a pattern? How's it different from casting? Discuss various allowances on pattern and the material alternatives for pattern making. 10
- Q. 2 a) Draw and explain Geometry of a Single Point Cutting Tool. 10
 b) Explain working of Submerged Arc Welding with its applications, advantages and limitations. 10
- Q. 3 a) Discuss physics of electric welding arc with the help of diagrams. 10
 b) Explain the working principle of resistance spot welding process with the help of diagrams. 10
- Q. 4 a) Explain the imposition of directional solidification in sand casting. 10
 b) Draw and explain significance of various elements of gating system in sand casting. 10
- Q. 5 a) Draw and explain working of screw injection moulding of polymers with its applications, advantages and limitations. 10
 b) Draw and explain various operations possible on Centre Lathe. 10
- Q. 6 Write short notes on (Any four) 20
 a) Various soldering techniques.
 b) Pressurized and Non-pressurized gating system in founding practice.
 c) Electron Beam Welding.
 d) Reaction moulding of polymers.
 e) Classification of manufacturing processes.
 f) Quick return mechanism on shaper.