



CBCS SCHEME

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18ME35B/18MEB305

Third Semester B.E. Degree Examination, July/August 2021 Metal Casting and Welding

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. Explain in detail any four types of pattern allowances. (10 Marks)
b. With neat sketches, explain investment moulding process. (10 Marks)
- 2 a. With neat sketches, explain shell moulding process. (10 Marks)
b. Explain Open Riser and Blind Riser with neat sketches. (10 Marks)
- 3 a. With neat sketches, explain working principle of Cupola furnace. (12 Marks)
b. With neat sketches, explain working of Resistance Furnace. (08 Marks)
- 4 a. With neat sketches, explain the steps involved in slush casting process. (10 Marks)
b. With neat sketch, explain continuous casting process. (10 Marks)
- 5 a. Explain induction degassing and stream droplet degassing methods with neat sketches. (12 Marks)
b. With neat sketches, explain any four casting defects. (08 Marks)
- 6 a. Describe the need of directional solidification in casting. (06 Marks)
b. State the advantages and limitations of casting process. (08 Marks)
c. With neat sketch, explain stir casting process. (06 Marks)
- 7 a. With neat sketch, explain metal inert gas welding process. Also state its advantages and limitation. (10 Marks)
b. With neat sketch, explain electron beam welding process, also state its advantages. (10 Marks)
- 8 a. State the advantages and limitations of welding processes. (06 Marks)
b. With neat sketch, explain hydrogen welding process. (08 Marks)
c. With neat sketch, explain explosive welding process. (06 Marks)
- 9 a. Explain the different zones in welding with neat sketch. (06 Marks)
b. Differentiate between brazing and soldering. (08 Marks)
c. With neat sketch, explain ultrasonic inspection method. (06 Marks)
- 10 a. With neat sketches, explain any five welding defects. (10 Marks)
b. With neat sketches, explain the types of flames that can be obtained during oxy-acetylene welding process. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.