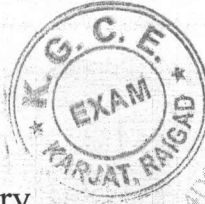


(3 Hours)



Max. Marks: 80

N.B:

- 1) Question No **ONE** is compulsory.
- 2) Attempt any **THREE** out of remaining **FIVE** questions.
- 3) Figures to the right indicate full marks.
- 4) Illustrate answers with proper justification and neat sketches wherever required
- 5) Answers to questions should be grouped and written together.

- Q.1 Explain in brief (Any Four) 20
- i) Core prints mould and core boxes
  - ii) Electrical Discharge machining.
  - iii) Properties of moulding sand
  - iv) Cleaning of casting (Fettling).
  - v) Brazing and soldering.
  - vi) Resin Transfer molding process of composite manufacturing.
  - vii).Characteristic of thermoplastic and thermosetting plastics
- Q.2 (a) State and explain common allowances provided to the patterns. 10
- (b) Explain the process of Ultrasonic Machining with its advantage, limitations and applications. 10
- Q.3 (a) Explain the process of Laser Beam Machining (LBM) with its advantages, limitations and applications. 10
- (b) Explain the composite manufacturing process of Pultrusion and Filament winding process. 10
- Q.4 (a) Explain with neat sketch the Slip Casting process with its applications. 10
- (b) Explain Pressure Die Casting technique with its advantages, limitations and applications 10
- Q.5 (a) State the various plastic processing methods and describe one of them with neat sketch, stating their advantages and limitations. 10
- (b) Explain various welding defects with causes and remedies. 10
- Q.6 (a) Name the various arc welding processes and explain one of them in detail with its advantages, disadvantages and applications. 10
- (b) Explain the terms with reference to the powder- metallurgy process: Sintering, Infiltration and impregnation. 10