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**School of Engineering****B.TECH Mechanical Engineering****Mid Term Examination - Nov 2023****Duration : 90 Minutes****Max Marks : 50****Sem III - G3UB303B - Manufacturing Processes I**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) How does the fluidity of molten metal impact the casting process? K2 (2)
- 2) Choose an appropriate welding process for joining two metal plates. K1 (3)
- 3) Classify the defects in sand casting based on their origin (mold, pattern, or pouring). K2 (4)
- 4) How does oxyfuel gas welding work? K2 (6)
- 5) Explain the working principle of investment casting. K3 (6)
- 6) Compare SMAW and GMAW in terms of their applications. K3 (9)
- 7) Award marks to different casting defects based on their severity and impact on the final product. K4 (8)
  
- 8) Explain the principle of explosive forming. K4 (12)

**OR**

- Extend the discussion on the advantages and limitations of friction welding. K4 (12)