



**INTERNATIONAL CENTRE FOR APPLIED SCIENCES  
MAHE, MANIPAL**

**B.Sc. (Applied Sciences) in Engg.**

**End – Semester Theory Examinations – Nov./ Dec. 2020**

**III SEMESTER - MANUFACTURING PROCESS ENGINEERING (IME 232)  
(Branch: Mechanical)**

**Time: 3 Hours**

**Date: 23 November 2020**

**Max. Marks:50**

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- ✓ Answer ALL the questions.
  - ✓ Missing data, if any, may be suitably assumed
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- 1.A** With a neat sketch explain the Centrifugal casting process. **5**
- 1.B** List the different types Lathe Attachments used in lathe and explain any. **5**
- 2.A** With a neat sketch explain Radial drilling machine. **5**
- 2.B** Explain the column and knee type of milling machine. **5**
- 3.A** List and explain Abrasive Particles used in Grinding wheel. **5**
- 3.B** With a neat sketch explain the seam Welding process. **5**
- 4.A** Differentiate the shaper and planer machine. **5**
- 4.B** With neat sketch explain the working principle of orthogonal and oblique cutting operation. **5**
- 5.A** Explain the bending operation in sheet metal and its advantages as well as disadvantages. **5**
- 5.B** Explain the shearing process with the help of die and punch. **5**

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