



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

B.Sc. (Applied Sciences) in Engg.

End – Semester Theory Examinations – NOV 2021

III SEMESTER - MANUFACTURING PROCESS ENGINEERING (IME 232)

Time: 3 Hours

Date: 22 NOV 2021

Max. Marks: 50

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- ✓ Answer ALL questions.
 - ✓ Missing data, if any, may be suitably assumed.
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| 1.A | With a neat sketch explain the Permanent mould casting, its advantages and disadvantages. | 5 |
| 1.B | Explain the Properties, advantages and disadvantages of hot working of metals. | 5 |
| 2.A | Classify the drilling machines and explain any two types of drilling operations. | 5 |
| 2.B | Why milling attachments are required, explain any one method. | 5 |
| 3.A | List the milling machine operations and explain any one | 5 |
| 3.B | Explain the given grinding wheel designation W-B-32-L-4-A-BE. | 5 |
| 4.A | Mention the different types of bonding materials used in grinding wheels and explain Vitrified bond. | 5 |
| 4.B | Why back gear mechanism is used in lathe, explain with a neat sketch. | 5 |
| 5.A | List and explain the shaper operations. | 5 |
| 5.B | Draw the nomenclature of a twist drill bit. | 5 |

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