



INTERNATIONAL CENTRE FOR APPLIED SCIENCES
MAHE, MANIPAL
B.Sc. (Applied Sciences) in Engg.
End – Semester Theory Examinations – Nov./ Dec. 2020
III SEMESTER - PROCESS PLANT MATERIALS (ICHM 233)
(Branch: Chemical)

Time: 3 Hours

Date: 25 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 | Explain the five stages in selection of any material used in industry. | 5 |
| 1.B | Define (i) ductility (ii) resilience (iii) fatigue (iv) creep (v) brittleness | 5 |
| 2.A | Explain in detail the different types of cast iron and their applications. | 5 |
| 2.B | Write a short note on:
a) Forging
b) Die Casting | 5 |
| 3.A | Briefly explain the two types of glasses:
a) Lead Glass
b) Glass wool | 5 |
| 3.B | Give a detailed description of the steps involved in the process of rubber lining. | 5 |
| 4.A | What is corrosion and what are the factors that have an influence on the process? | 5 |
| 4.B | Compare and contrast the different types of Polyethylene with its uses. | 5 |
| 5.A | Where is Non Destructive testing employed? Write briefly about any two methods. | 5 |
| 5.B | Explain in detail the different factors that affect the mechanical properties of materials (metals). | 5 |
