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Total No. of Pages : 01

Total No. of Questions : 08

M.Tech (ME) (Sem.-2)

TRIBOLOGY

Subject Code : MTME-202

M.Code : 74978

Date of Examination : 15-12-22

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions in all, out of EIGHT questions.
2. Each question carries TWENTY marks.

1.
 - a) Discuss the concept of Industrial Tribology.
 - b) Explain in brief the concept of Surface energy and Flash temperature theory.
2.
 - a) What are Laws of Friction? Discuss material properties influencing friction.
 - b) Discuss frictions characteristics causes by friction in metals and Non-metals.
3.
 - a) Discuss in detail various theories of wear and explain types of wear.
 - b) What is wear mechanism?
4.
 - a) What is the importance of lubrication in tribology?
 - b) Discuss various types and mechanism of lubrication.
5. Discuss in detail the principle operation and selection criteria of hydrodynamic journal.
6. Discuss in brief the introduction to solids lubricants and their applications.
7. Write a short note on:
 - a) Sommerfeld number
 - b) Design of bearing/journal bearing
8. Discuss in detail the Industrial application of tribology in paper and glass fibre industry.

NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC case against the Student.