

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (ME) (2012 Onwards E-II) (Sem.-7)

INDUSTRIAL TRIBOLOGY

Subject Code : DE/ME-3.6

M.Code : 72022

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**Answer briefly :**

1. List different tribological considerations.
2. Define Friction.
3. What is the need of lubrication?
4. Write the functions of lubricant additives.
5. What is filtration?
6. What are solid lubricants?
7. What is the need of pre-loading?
8. List the materials used for porous bearings.
9. Define Viscosity.
10. What is tribological surface?

SECTION-B

11. State and explain adhesion theory.
12. Explain how measurement of friction is done?
13. Explain the mechanism of wear.
14. State various types of lubricants and their industrial applications.
15. Define and explain: viscosity index and kinematic viscosity.

SECTION-C

16. Explain the procedure of diagnostic maintenance of tribological components.
17. Explain the mechanism of rolling friction and compare it with sliding friction.
18. Discuss the role of eccentricity in hydrodynamic lubrication of journal bearing.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.