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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ME) (E-I 2011 Onwards) (Sem.-6)**INDUSTRIAL TRIBOLOGY**

Subject Code : DE/ME-3.6

M.Code : 71268

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION 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**1. Answer briefly :**

- (a) Give the applications of tribology in industry.
- (b) What is rough surface?
- (c) What is friction?
- (d) Give the applications of lubricant additives.
- (e) List down the causes of friction?
- (f) What is the purpose of filtration process?
- (g) Give the mechanical properties of surface layer.
- (h) What is the concept of friction measurement?
- (i) What is dry friction?
- (j) Give the laws of rolling friction.





SECTION-B

2. Discuss in brief the properties of liquid and grease lubricants.
3. Explain in general steps required for selection of bearing.
4. Explain the concept of mechanism of wear using suitable diagram
5. Discuss how friction affects wear of metals and non-metals.
6. Give differences between hydrostatic and elasto-hydrodynamic lubrication.

SECTION-C

7. What is boundary lubrication and discuss the industrial applications of lubricants?
8. Discuss in brief some tribological considerations of nature of surfaces.
9. Discuss the concept of adhesion theory and discuss laws of static friction.

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.

