Roll No. | | | | | | | | | | | | |

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

Paper ID : [A2427]

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

Q1 Answer briefly :

a) List down the importance of Industrial Tribology.

b) Give the role of friction in Tribology.

c) What is dry friction?

d) What is the pour point of the lubricant?

e) Define a rough surface.

f) Define rolling friction.

g) What are tribological components?

h) What is the function of using filters?

i) List down different types of wear.

j) How bearing maintenance is done?

SECTION-B

Q2 Explain the measures of friction affects the wear rate.

Q3 Define wear and explain different types of wear.

Q4 Discuss different modes of bearing failure.

Q5 Explain general properties and different ways for selecting a lubricant.

Q6 Explain hydrostatic and elasto hydrodynamic lubrication.

SECTION-C

Q7 Discuss various methods for selecting a bearing and explain how bearing maintenance is done?

Q8 Explain the geometrical properties of the surfaces.

Q9 Discuss in detail how wear occurs in Metals and Non-metals.