Tilak Maharashtra University  
Diploma in Engineering  
SUB: Elements of Mechanical Engineering

Year –FY  Branch- Computer/E&TC /Mech  
Semester -2nd

Assignment No: 1  
(5 Marks each)

Attempt any five.

Q.1 Describe various types of forging tools.  
Or
Q.1 Describe various types of cutting tools.

Q.2 Explain causes of accidents & what are the preventive measures.  
Or
Q.2 Describe in short electrical safety & five safety.

Q.3 Write specification of lathe.  
Or
Q.3 Which are the different components of lathe.

Q.4 Describe in short various lathe operation  
Or
Q.4 Describe in short various drilling machines.

Q.5 Describe in short different drilling operations.  
Or

Q.5 What is milling. Describe the knee & column milling machine.
Answer any four

Q.1 Describe in detail molding & metal pouring process
   Or
Q.1 Which are different types of molds?

Q.2 Write short note on molding sand.
   Or
Q.2 Explain Shell molding.

Q.3 Write short note on forging.
   Or
Q.3 Explain in short rolling, extrusion & wire drawing.

Q.4 Write note on Lapping.
   Or
Q.4 Describe process of honing.

Q.5 What is the process of super finishing?
   Or
Q.5 Describe in short different cleaning & coating processes.
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Assignment No: 3
(5 Marks each)

Attempt any four

Q.1 Describe group drive & Individual drive.
Or
Q.1 Write short note on belt drive

Q.2 Write short note on Fast & loose Pulleys
Or
Q.2 Explain the function of idler pulley & jockey pulley.

Q.3 Explain Gear drive.
Or
Q.3 Define Prime mover. Write its type & factors considered in the selection of prime movers.

Q.4 Explain with neat diagram working of hydro-electric power plant & give its advantage & disadvantages.
Or
Q.4 Explain with neat diagram working of steam engine.

Q.5 Explain various components of 1C engine.
Or
Q.5 What are the advantages & disadvantages of pneumatic prime mover?