

Menoufia University
Faculty of Engineering
Shebin El-Kom
Academic year 2016
Second term

Dep. : Prod Eng. & Mech. Design
Year : Diploma program
Subject/code : Jigs, & fixtures / PRE 510
Time allowed : 3 hours .
Date : 6/6/2016

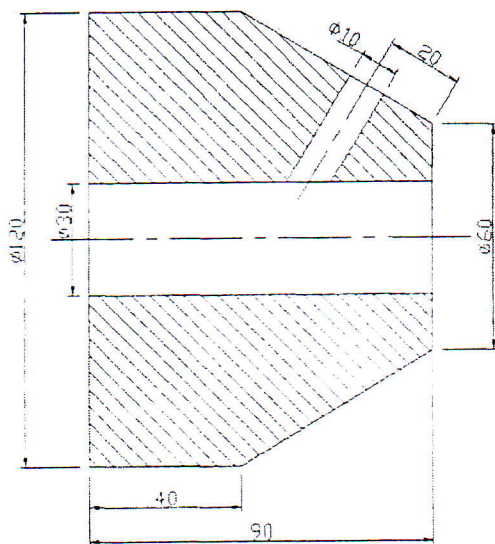
Answer all the following questions (with the help of sketches) :

Question : 1

- Distinguished between jigs and fixtures .
- Name any three materials commonly used in Jigs and fixtures .
- Discuss the advantages of Jigs and fixtures .
- Mention the different turning fixtures and their applications .

Question : 2

- Design and sketch a drill Jig to drill the 10mm hole in the component shown in Fig. 1, assuming that this is the last operation to performed.
- Design and sketch a milling fixture for making a slot as shown in Fig. 2.
- Figure 3 represents a spherical part, design a suitable Jig and fixture to make a hole of a diameter equals 10mm as shown in the Fig. 3.



All Dimensions are in mm
Figure 1

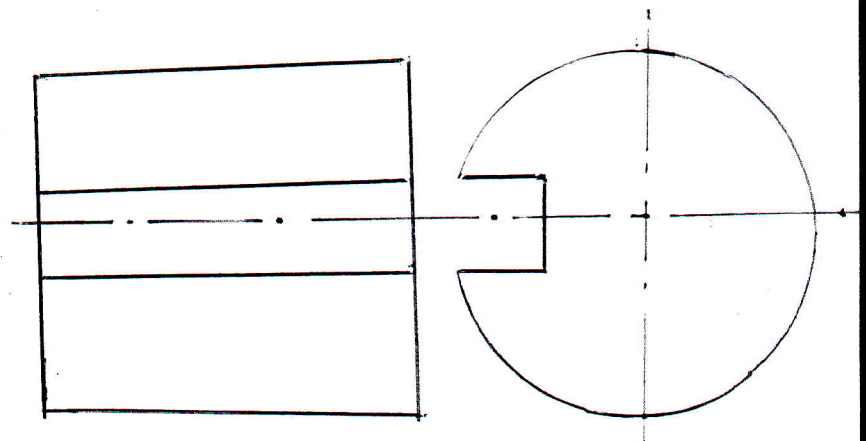


Fig. 2

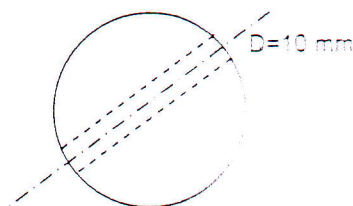


Figure 3