

Time: Two (02) hours

PART - B

5. Explain the procedure of fabricating the pipe bracket shown in Fig.Q05 using the facilities in the university workshop. Assume suitable dimensions and raw materials.

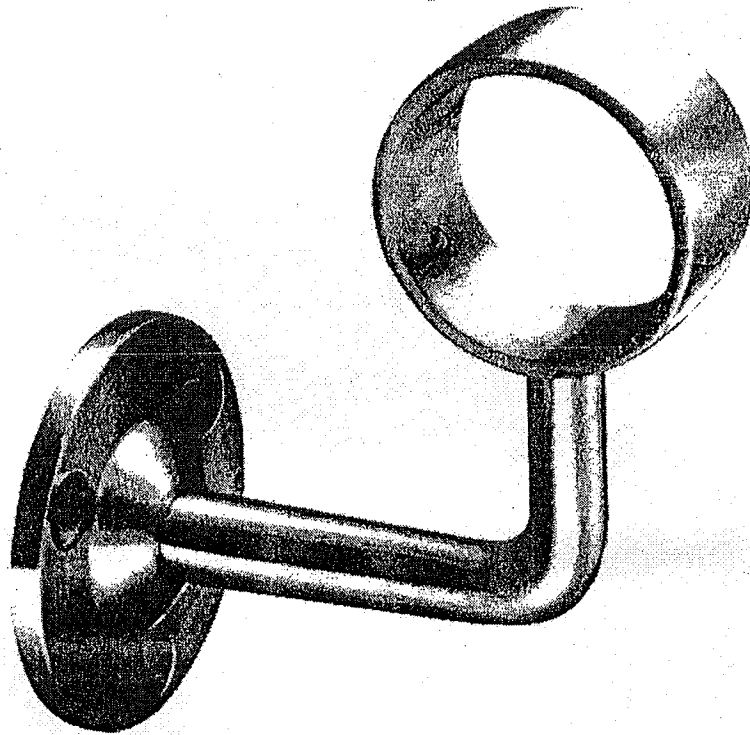


Fig.Q05

(15marks)

6. Welding is a widely used joining process in the industry.
- Write an essay gas welding giving the details of the welding torch, gasses used and the types of flames used.
 - Explain the electric arc welding operation.
- (15 marks)
- 7.
- What are the types of joints used in welding? Explain using sketches.
 - What are the different types of welding positions used?
 - Briefly explain the principle of arc welding.
8. Calculate the indexing requirement for 43, 87, 121 divisions and 3.75° on a milling machine equipped with a differential indexing head. The index plates available are

Plate no. 1 15, 16, 17, 18, 19, 20 holes

Plate no. 2 21, 23, 27, 29, 31, 33 holes

Plate no. 3 37, 39, 41, 43, 47, 49 holes

The change gear set available is 24, 24, 28, 32, 40, 44, 48, 56, 64, 72, 86, 100.