



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

Question: 1

(25 marks)

- Distinguish between Jigs and fixtures.
- Name some materials commonly used in jigs and fixtures.
- Discuss the advantages of jigs and fixtures
- Mention and sketch the different applications of turning fixtures.
- Mention the advantages and disadvantages of conical locators
- Discuss the causes of errors in the design and operation of jigs and fixtures.
- Writes short notes on broaching fixture.
- What are the welding fixtures ? state the general purpose of welding fixtures.

Question: 2

(25 marks)

- Design and sketch a suitable jig to make four equi-spaced radial through holes in a ring as shown in Fig. 1. (assuming that this is the last operation to be performed)

Question: 3

(25 marks)

- Design and sketch a drill jig to drill the hole in the component shown in Fig. 2.

Question: 4

(25 marks)

- Design and sketch a milling fixture to make a slot as shown in Fig.3.

