



Answer all the following questions (with help of sketches)

Question (1): (25 Marks)

- Discuss the advantages of jigs and fixtures.
- What is the advantage of conical locators?
- Define indexing device.
- Sketch and discuss the function of mandrels in turning fixtures.
- What are the welding fixtures? State the general purpose of welding fixtures

Question (2): (25 Marks)

Design a jig for drilling four equi-spaced radial through holes in a ring as shown in Fig. 1 (assuming that this is the last operation to be preformed).

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 a milling fixture to make a slot as shown in Fig. 3

Good Luck

The exam measures the following ILOs.

Q. No.	Q. No. 1	Q. No. 2	Q. No. 3	Q. No. 4
Skill 1 (k,u)	a)- a2 b)- a1			
Skill 2 intell.	c)- b2 d)- b3 d)-b1			
Skill 3 Profiss		c1	c5	c4

