

- Q.8 Design a suitable milling fixture to cut a key way of size 3x3 mm on a solid shaft of 30 mm diameter and 100mm length.
- Q.9 Write the procedure steps for designing a plus gauge with go and not go side. Assuming suitable dimensions draw the same.

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4th Sem, **Branch :** Mech./T&D/CNC/CAD/CAM  
**Subject :** Jigs, Fixtures & Gauges - Design & Drawing

**Time : 3 Hrs.**

**M.M. : 100**

### **SECTION-A**

**Note :** Attempt any 5 questions. (5x8=40)

- Q.1 Explain interchangeability in mass production. How jigs and fixtures help in achieving it?
- Q.2 Explain different types of locating devices used for locating a work piece.
- Q.3 Draw a neat sketch of a box type jig and name the parts.
- Q.4 Explain any grinding fixture with neat sketch?
- Q.5 Explain the role of Limit gauges in mass production with examples.
- Q.6 Explain plug, ring and snap gauge in detail.

### **SECTION-B**

**Note :** Long answer type question. Attempt any two parts. (30x2=60)

- Q.7 Design and draw a drilling jig for drilling 8 holes of 10mm diameter on PCD of 80 mm dia. The circular MS plate consist of 120 mm dia & 30mm thickness.