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**PART- A**

**[3 × 10 = 30 Marks]**

AG 1. AG Draw the sectional front view and top view of two 20 mm thick plates fastened together by means of 20 mm diameter stud, a hexagonal nut and a washer. Insert important dimensions. [10]

2. Draw the sectional front and side view of a cotter-joint with two sleeves and each sleeve is having a width of 32 mm and thickness 6 mm and the clearance is 3 mm and taper as 1 in 30. [10]

AG 3. AG Draw neatly, a sectional front view and top view of a single riveted butt joint for two 10 mm thick plates, using two butt-straps. Show all the dimensions in your drawing. [10]

4. Draw the half sectional front view and side view of a journal bearing which can accommodate 40 mm diameter shaft. [10]

AG AG AG **PART- B** AG AG AG /

**[1 × 45 = 45 Marks]**

5. Assemble the parts of spring loaded safety valve for the parts shown in Figure and draw the:  
a) sectional front view  
b) right side view. [45]

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