

**II B. Tech I Semester Regular Examinations, March - 2021**  
**MACHINE DRAWING**  
 (Mechanical Engineering)

Time: 3 hours

Max. Marks: 75

**Note: Part A: Answer any TWO of the following questions:**  
**PART-B** is compulsory.

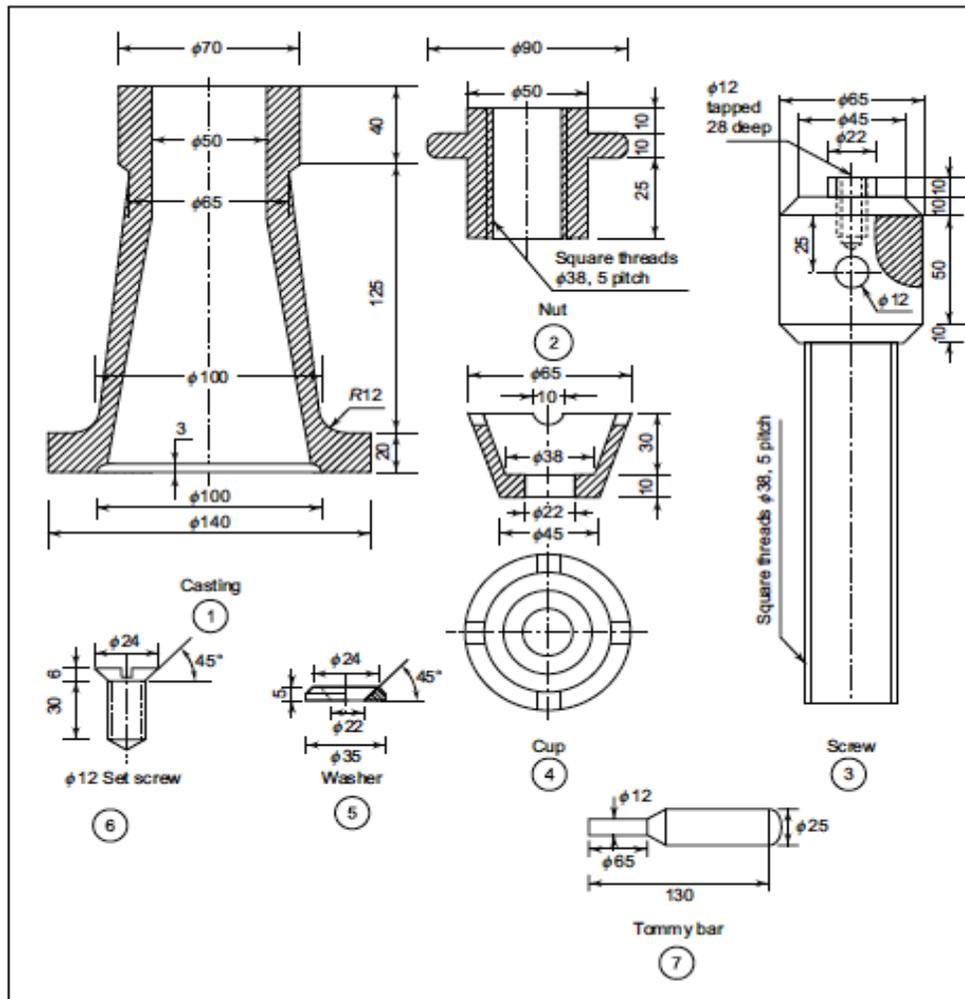
(12.5M×2=25M)

**PART-A**

1. Draw internal square threads for a diameter of 50 mm. Show at least 6 threads in schematic method. (12.5M)
2. Draw a double riveted lap joint for plate thickness of 16 mm with zigzag riveting. (12.5M)
3. Sketch the necessary views of a foot-step bearing, for supporting a shaft of diameter 50mm. (12.5M)

**PART-B**

4. Draw the following assembled views of a screwjack to a suitable scale. (50M)  
 (a) Sectional front view (b) Side view (c) Top view.  
 Also include a bill of material. All the dimensions are in mm only



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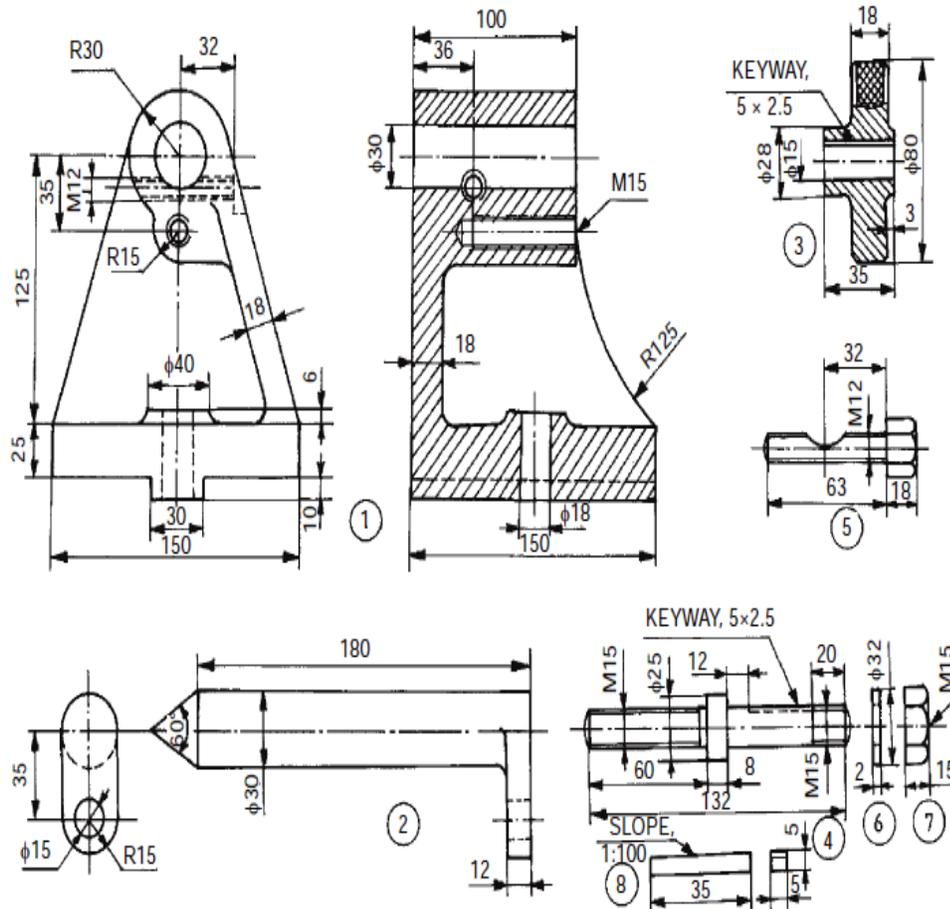
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**PART-A**

1. Draw 8 turns of M25 thread with square threads in schematic method. (12.5M)
2. Draw front view, side view and sectional top view of knuckle joint for a rod size of 25 mm (12.5M)
3. Draw a sectional front view and side view of a rigid type flange coupling for a shaft diameter of 30 mm. (12.5M)

**PART-B**

4. Assemble the parts of the milling machine tail-stock, shown in the following figure and draw, (i) sectional view from the front and (ii) view from the right Also include a bill of material. All the dimensions are in mm only. (50M)



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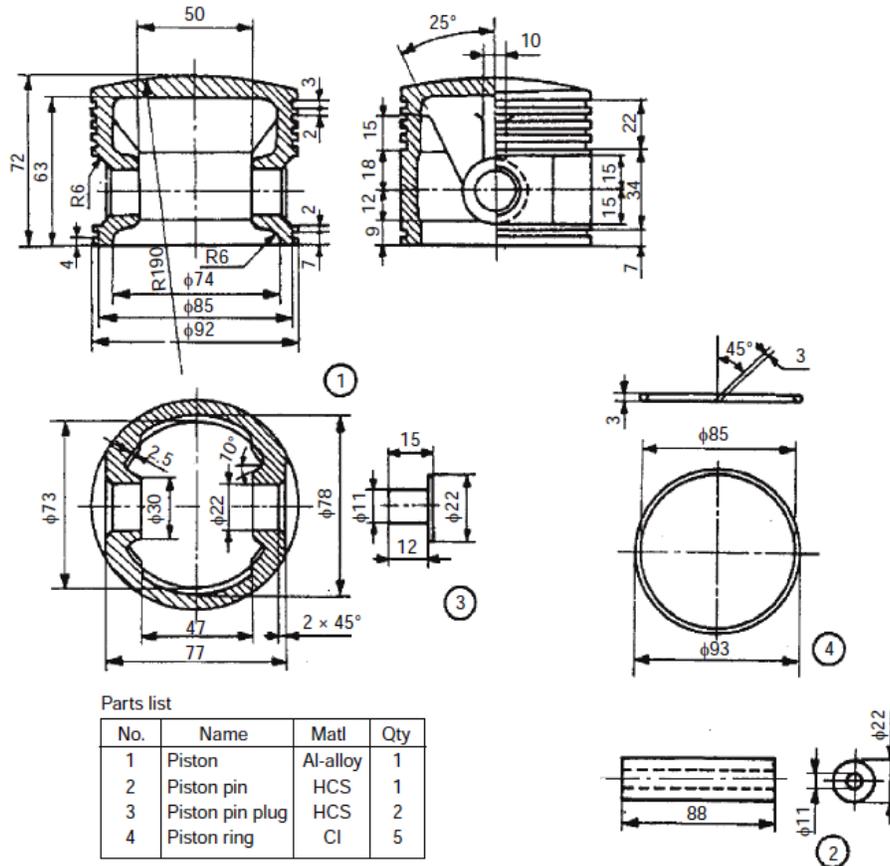
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**PART-A**

1. Draw front, side and top view of a hexagonal bolt of diameter 24 mm and length 100 mm along with its nut and washer. (12.5M)
2. Draw a flat saddle key, rectangular taper key, and single head screw key for shaft diameter of 50 mm. (12.5M)
3. Sketch the required views of Oldham coupling used to connect two shafts, each of diameter 30 mm. (12.5M)

**PART-B**

4. Assemble the parts of the piston, shown in the following figure and draw the following views: (50M)
  - (i) Sectional view from the front,
  - (ii) Half sectional view from the left, and
  - (iii) Sectional view from above
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**PART-A**

1. Draw three views of a 24 mm diameter stud, 120 mm long, with a hexagonal nut (12.5M) and a split pin. (12.5M)
2. Draw the two views of a cotter joint for joining two 30 mm diameter rods. (12.5M) Mention the necessary dimensions in the drawing. (12.5M)
3. Draw the half sectional front view and side view of bushed pin type flange coupling to connect two shafts each of diameter of 40 mm. (12.5M)

**PART-B**

4. Assemble the parts of the rotary gear pump, shown in the following figure and draw, (i) sectional view from the front and (ii) view from the right. (50M)  
 All the dimensions are in mm only.

