

Code No: R1622035

R16**SET - 1****II B. Tech II Semester Regular Examinations, April - 2018****MACHINE DRAWING**

(Com to ME, AME)

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)2. Answer any Two questions in **Part-A** – $10 \times 2 = 20$ marks3. Question from **Part-B** is compulsory – $50 \times 1 = 50$ marks
~~~~~**PART -A**

1. Draw half sectional front view and top view of a solid journal bearing suitable for supporting a shaft of diameter 30 mm and mark the proportions. (10M)
2. Draw three views of a Hexagonal headed bolt of nominal diameter 30 mm and Length 125 mm with a hexagonal nut and washer in place. (10M)
3. Draw Sectional view from front and view from above of a Double Riveted zig zag lap joint to join plates of thickness 18 mm and provide all dimensions. (10M)

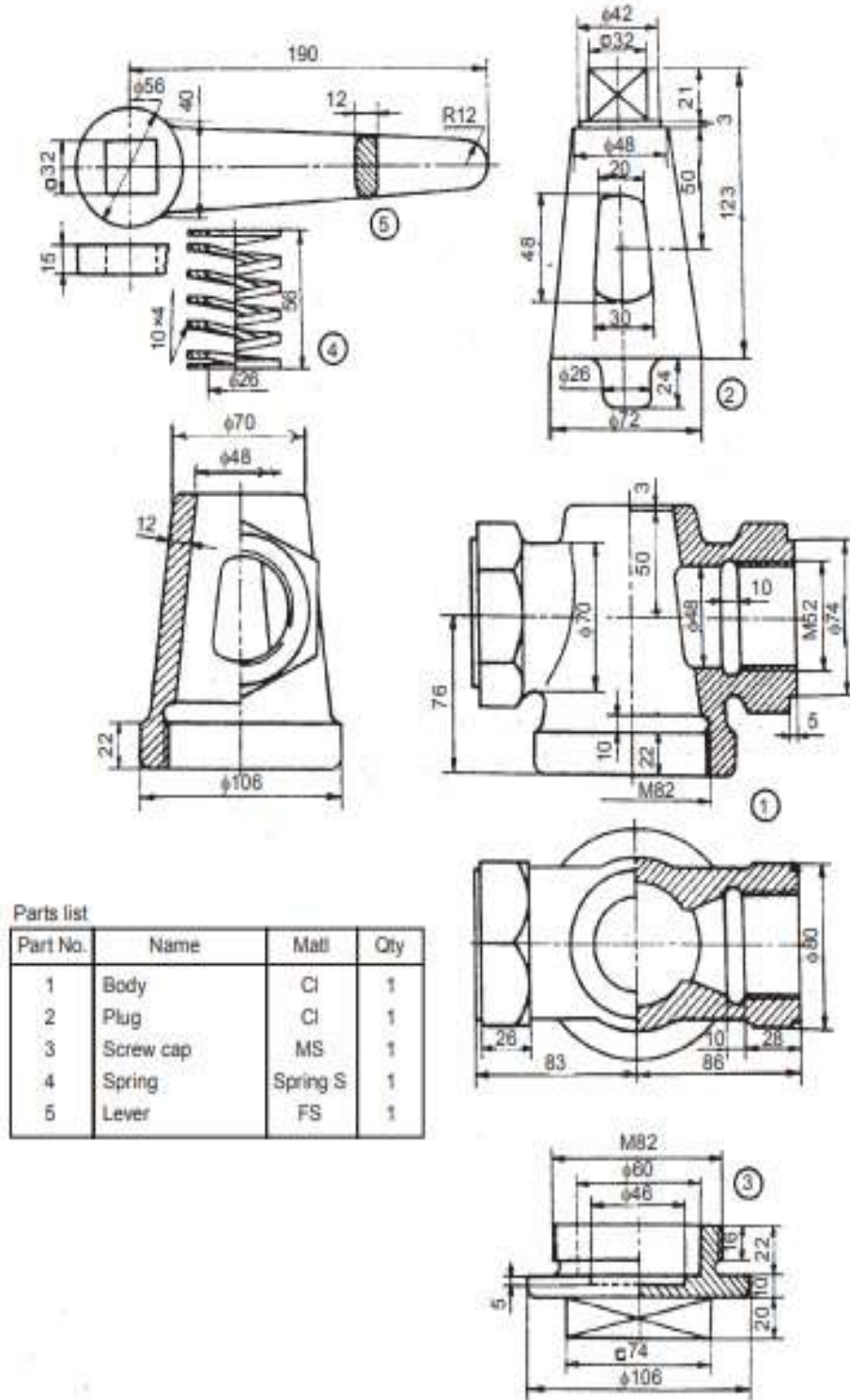
**PART -B**

4. The details of an air cock are shown in Fig. 1 Assemble the parts and draw, (i) half sectional view from the front, (ii) view from the right and (iii) the view from above. (50M)

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**SET - 1**



Parts list

| Part No. | Name      | Matl     | Qty |
|----------|-----------|----------|-----|
| 1        | Body      | CI       | 1   |
| 2        | Plug      | CI       | 1   |
| 3        | Screw cap | MS       | 1   |
| 4        | Spring    | Spring S | 1   |
| 5        | Lever     | FS       | 1   |

Fig. 1 Air Cock

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**R16****SET - 2****II B. Tech II Semester Regular Examinations, April - 2018****MACHINE DRAWING**

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Time: 3 hours

Max. Marks: 70

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Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)2. Answer any Two questions in **Part-A** -  $10 \times 2 = 20$  marks3. Question from **Part-B** is compulsory -  $50 \times 1 = 50$  marks  
~~~~~**PART -A**

1. Two views of a taper sunk key positioned in a shaft of diameter 25mm and hub of diameter 50mm and mark dimensions on it. (10M)
2. Draw half sectional front view and top view of a bushed pin type flange coupling, indicating proportions to connect two shafts of diameter 25mm each. (10M)
3. Draw three views of a Hexagonal headed bolt of nominal diameter 25mm and length 100mm with a hexagonal nut and washer in place. (10M)

PART -B

4. Fig. gives the part drawings of Plummer block. Assemble all the parts and draw the following assembled views. (50M)
(a) Sectional front view (b) Top view (c) Sectional view from the left

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SET - 2

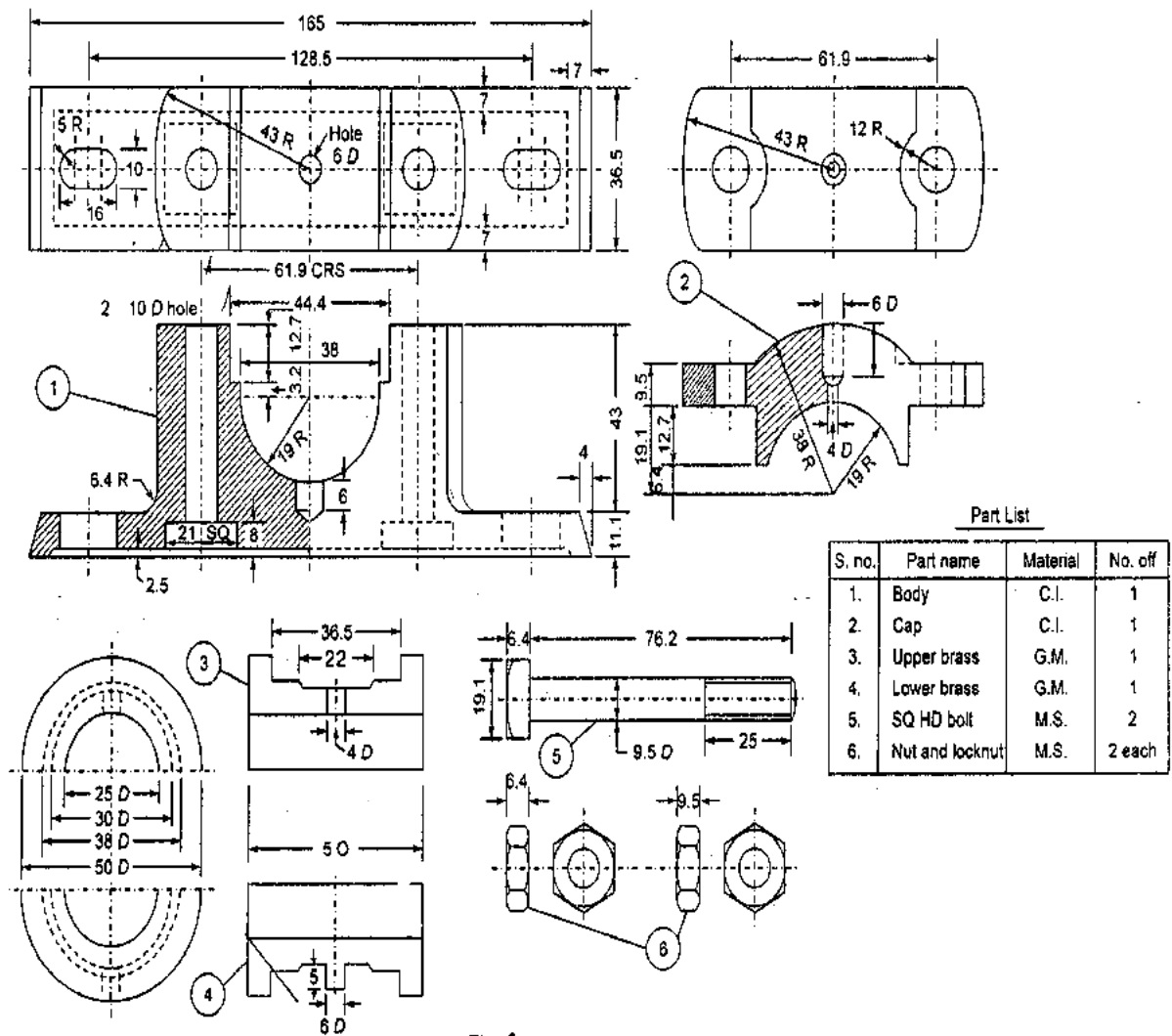


Fig. 1 Details of plummer block

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R16**SET - 3****II B. Tech II Semester Regular Examinations, April - 2018****MACHINE DRAWING**

(Com to ME, AME)

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)2. Answer any Two questions in **Part-A** - $10 \times 2 = 20$ marks3. Question from **Part-B** is compulsory - $50 \times 1 = 50$ marks
~~~~~**PART -A**

1. Draw the sectional view from the front, and view from the top of a knuckle joint used to connect eye and fork end of diameter 50mm. (10M)
2. Sketch a socket and spigot pipe joint to connect two pipes of 50mm diameter each. The pipes are laid underground. Indicate proportionate dimensions of various parts of the joint. (10M)
3. Draw a). Sectional view from the front and b). View from the above, of the double riveted, double strap, zig-zag butt joint, to join plates of thickness 12mm. (10M)

**PART -B**

4. Figure shows the details of a machine vice. Assemble the parts and draw, (i) sectional view from the front, (ii) view from above and (iii) view from the right. Use suitable scale. (50M)

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**SET - 3**

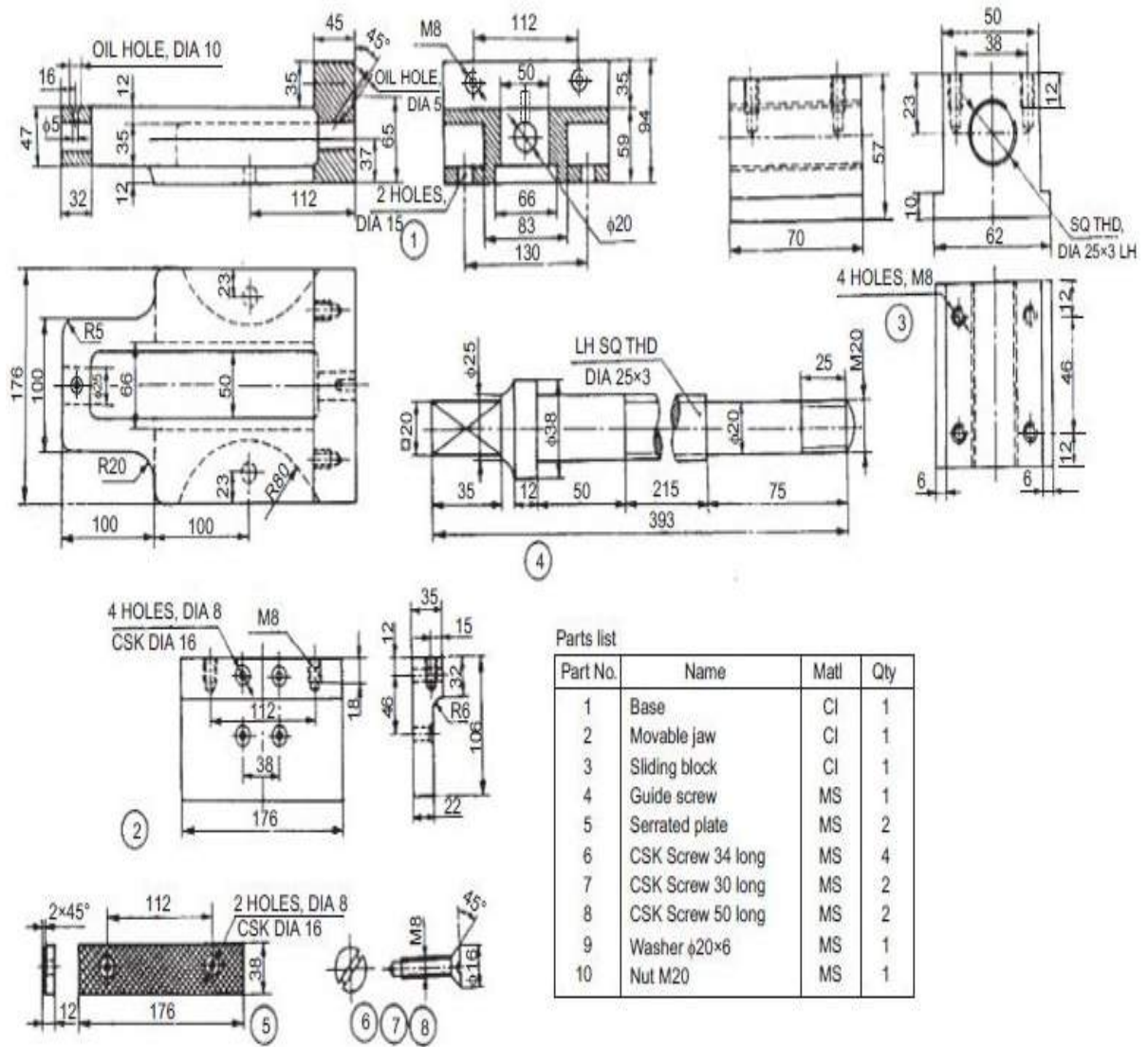


Fig. Machine vice

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**R16****SET - 4****II B. Tech II Semester Regular Examinations, April - 2018****MACHINE DRAWING**

(Com to ME, AME)

Time: 3 hours

Max. Marks: 70

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Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)2. Answer any Two questions in **Part-A** – 10x2 = 20 marks3. Question from **Part-B** is compulsory - 50x1= 50 marks  
~~~~~**PART -A**

1. Sketch the required views of Oldham coupling and indicating proportions, used (10M)
to connect two shafts, each of diameter 30 mm.
2. Draw three views of a Hexagonal headed bolt of nominal diameter 30mm and (10M)
length 120mm with a hexagonal nut and washer in place.
3. Two square rods of side 50 mm each, are connected by a cotter joint with a gib. (10M)
Sketch the following views of the assembly :
(a) half sectional view from the front and (b) view from the side.

PART -B

4. Assemble the parts of the piston, shown in Fig. and draw the following views: (50M)
(i) Sectional view from the front,
(ii) Half sectional view from the right, and
(iii) Sectional view from above

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SET - 4

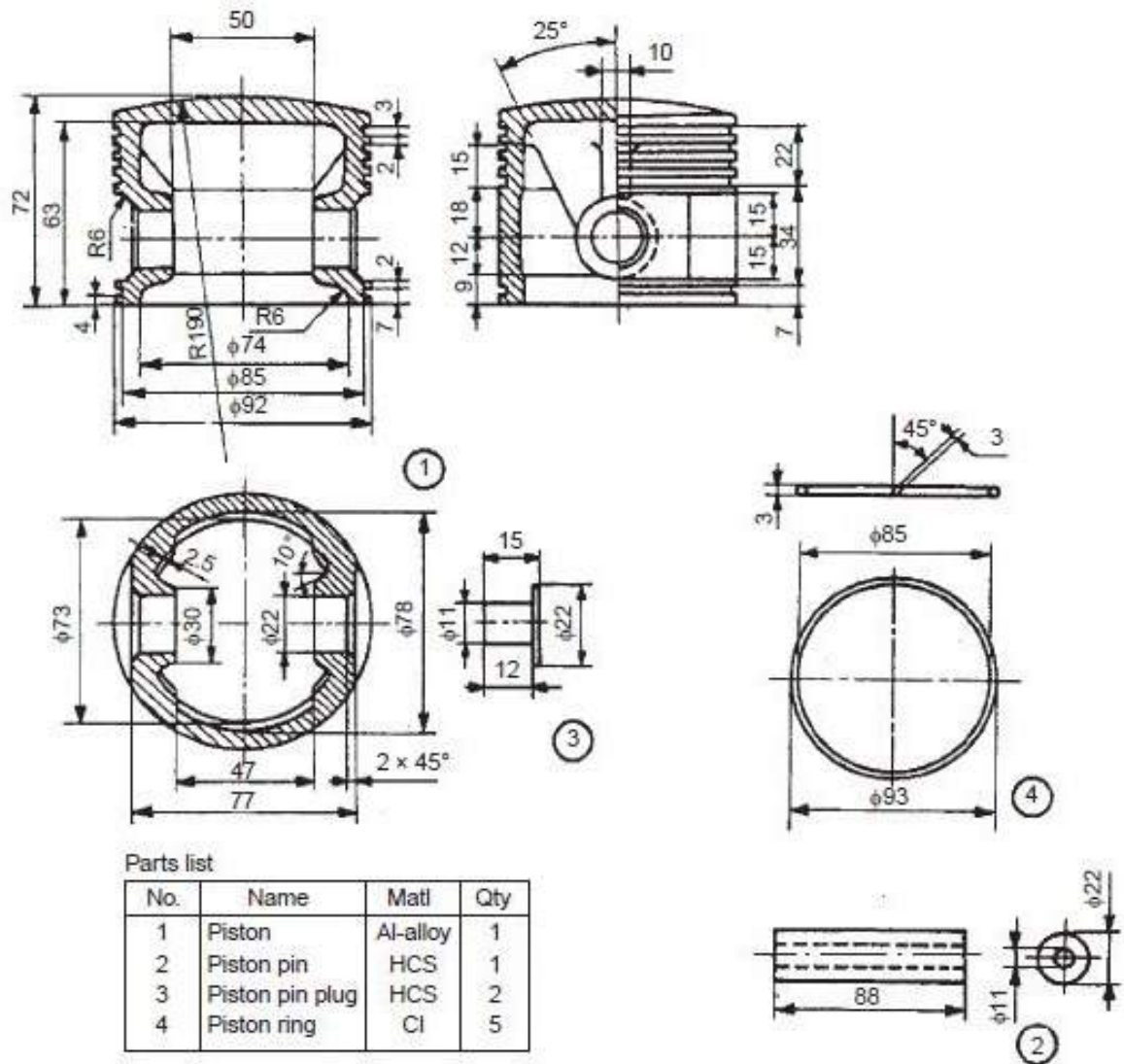


Fig. Piston of a petrol engine