Code No: R22036 **R10** SET - 1

**II B. Tech II Semester Supplementary Examinations January – 2014**
**MACHINE DRAWING**
(Com. to ME, AME)

Time: 3 hours Max. Marks: 75

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

**PART- A**

(12.5M×2=25M)

1. Draw the conventional representation of wood, glass, leaf spring, external thread and metal

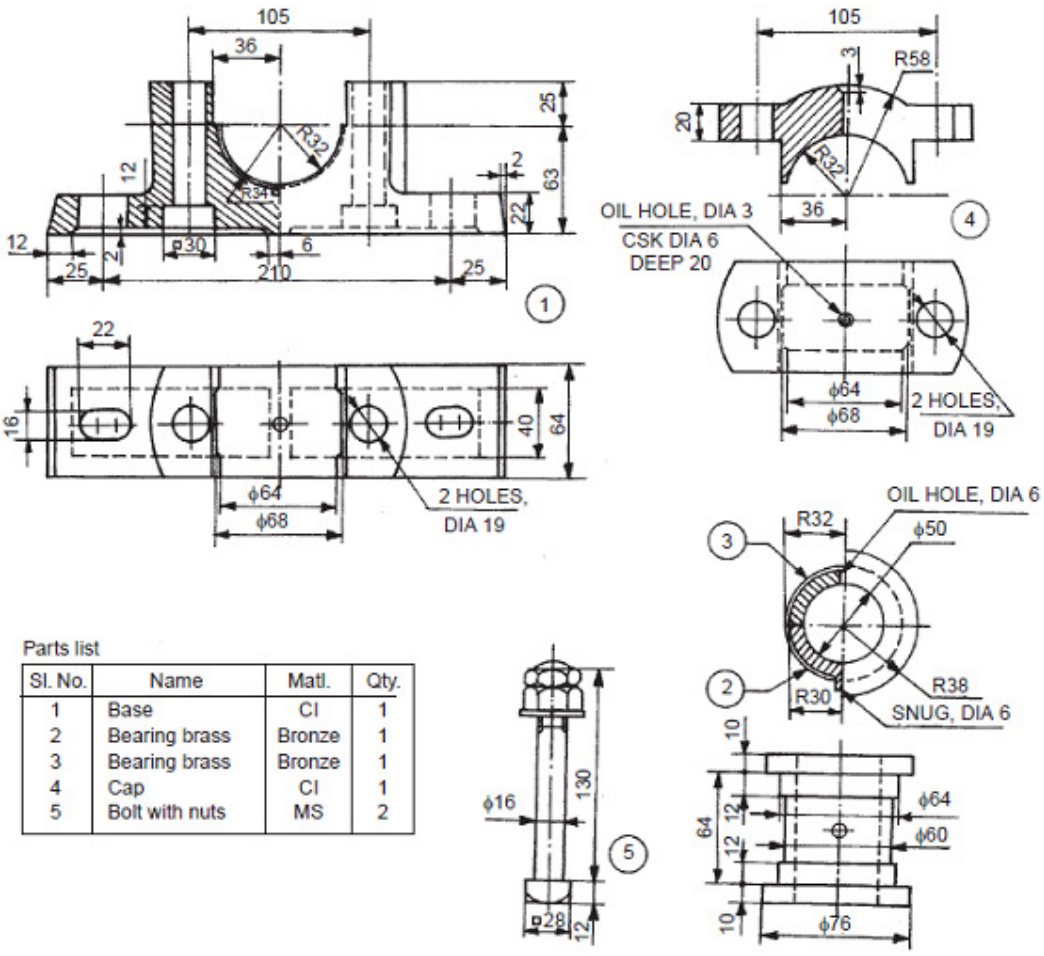
2. Draw any two views of a hexagonal headed bolt of nominal diameter 25 mm and length 100mm; with a hexagonal nut and washer.

3. Draw the sectional front view and top view of a double riveted double strap zig-zig but joint. Take the thickness of main plates=10 mm. Assuming pitch of rivets as three times the rivet diameter.

**PART-B**

(50M)

4. Assemble the parts of the plummer block, shown in Figure. 1 and draw the following views:
   i) Half sectional view from the front, with left half in section.
   ii) View from above.




Parts list

| Sl. No. | Name | Matl. | Qty. |
|---|---|---|---|
| 1 | Base | CI | 1 |
| 2 | Bearing brass | Bronze | 1 |
| 3 | Bearing brass | Bronze | 1 |
| 4 | Cap | CI | 1 |
| 5 | Bolt with nuts | MS | 2 |

Figure.1

Code No: R22036 **R10** SET - 2

**II B. Tech II Semester Supplementary Examinations January – 2014**
**MACHINE DRAWING**
(Com. to ME, AME)

Time: 3 hours Max. Marks: 75

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

## PART- A

(12.5M×2=25M)

1. Conventionally represent the following
   i) Straight knurling ii) Bolt and Nut iii) Concrete iv) Glass.

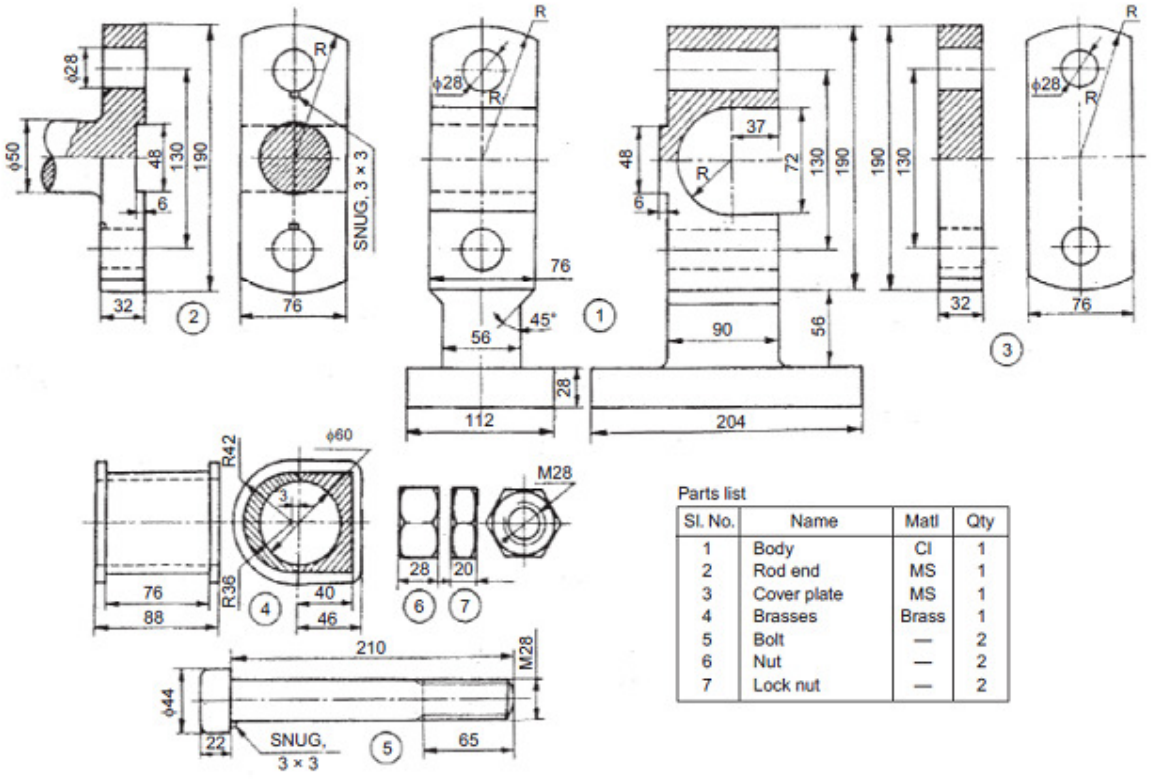
2. Draw a journal bearing for a shaft of 30 mm diameter.

3. Draw the sectional front view and top view of a double riveted double strap zig-zig but joint. Take the thickness of main plates=20 mm.

## PART-B

(50M)

4. Assemble the steam engine crosshead parts and draw, *i*) half sectional view from the front, with bottom half in section and *ii*) view from above.




Parts list

| Sl. No. | Name | Matl | Qty |
|---|---|---|---|
| 1 | Body | CI | 1 |
| 2 | Rod end | MS | 1 |
| 3 | Cover plate | MS | 1 |
| 4 | Brasses | Brass | 1 |
| 5 | Bolt | — | 2 |
| 6 | Nut | — | 2 |
| 7 | Lock nut | — | 2 |



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Code No: R22036 **R10** SET - 3

**II B. Tech II Semester Supplementary Examinations January – 2014**
**MACHINE DRAWING**
(Com. to ME, AME)

Time: 3 hours Max. Marks: 75

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

**PART- A**

(12.5M×2=25M)

1. Sketch the following thread forms:
   i) ACME ii) B.S.W iii) Knuckle iv) Buttress

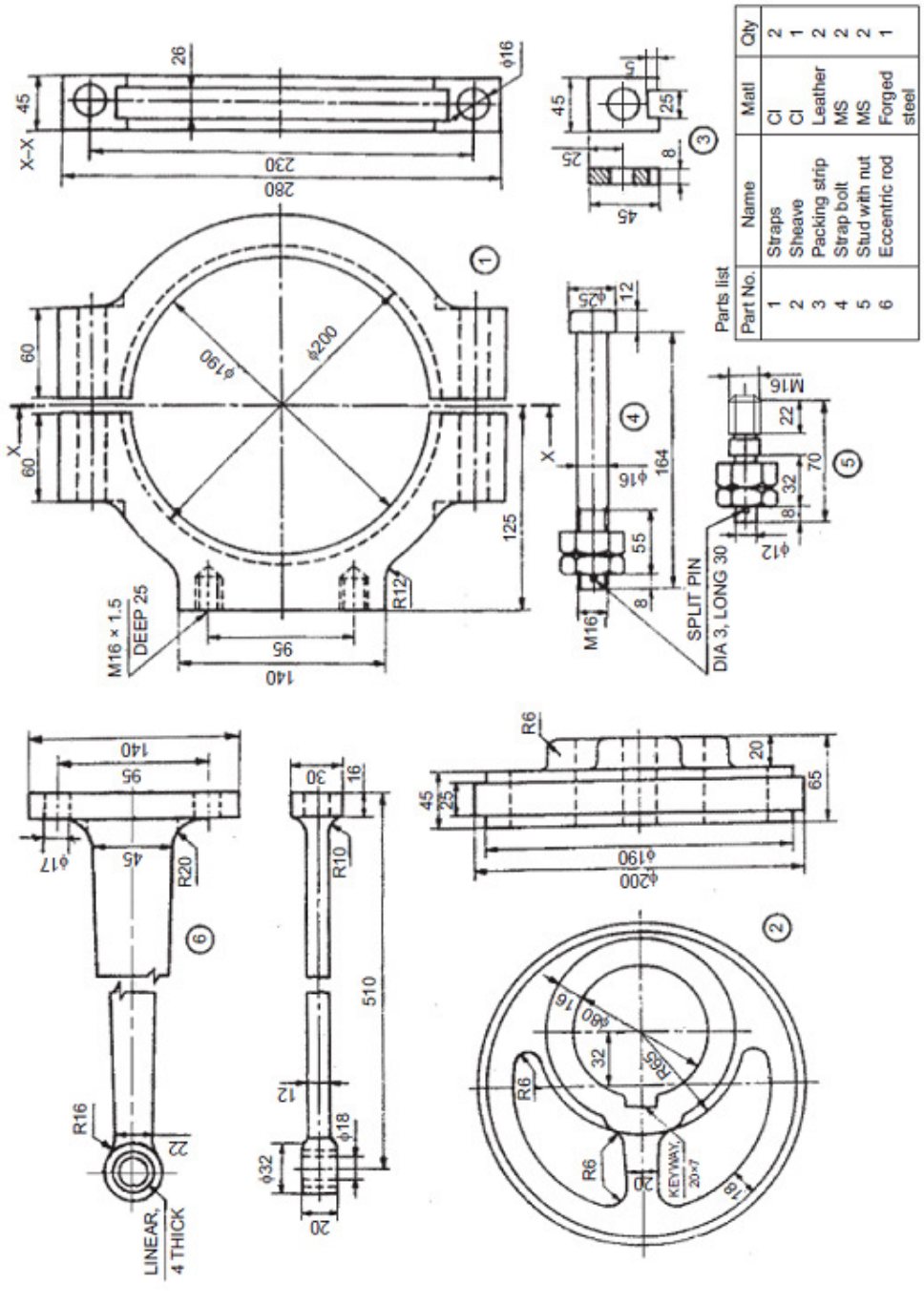
2. Draw the eye bolt where d=20mm

3. Draw the sectional front view and top view of a single riveted double strap but joint. Take the thickness of main plates=10 mm. Assuming pitch of rivets as three times the rivet diameter.

**PART-B**

(50M)

4. Assemble the parts of an eccentric and draw, i) half sectional view from the front, with top half in section, ii) view from the right and iii) view from above.


Parts list
Part No. | Name | Matl | Qty
1 | Straps | CI | 2
2 | Sheave | CI | 1
3 | Packing strip | Leather | 2
4 | Strap bolt | MS | 2
5 | Stud with nut | MS | 2
6 | Eccentric rod | Forged steel | 1
X–X
SPLIT PIN DIA 3, LONG 30
M16 × 1.5 DEEP 25
LINEAR, 4 THICK
KEYWAY 20×7

Code No: R22036 **R10** SET - 4

**II B. Tech II Semester Supplementary Examinations January – 2014**
**MACHINE DRAWING**
(Com. to ME, AME)

Time: 3 hours Max. Marks: 75

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

**PART- A**

(12.5M×2=25M)

1. Draw any two views of square nut and bolt assembly for a nominal diameter of 25 mm and length 100 mm.

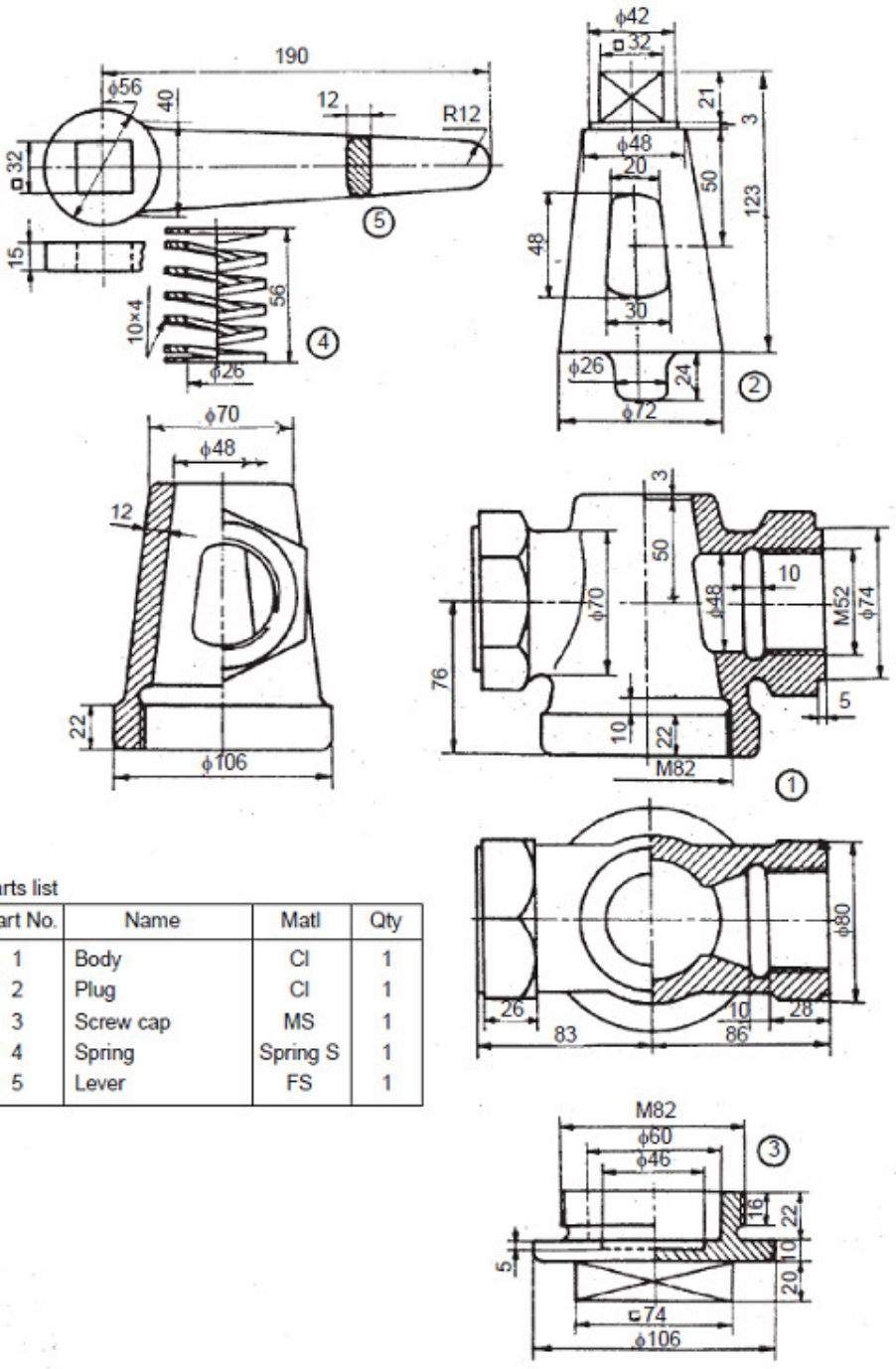
2. Draw the BSW, V-Thread and Buttress Thread profiles.

3. Draw the front view and side view of solid journal bearing suitable for a shaft 50 mm diameter.

**PART-B**

(50M)

4. Assemble the parts of an air cock and draw, i) half sectional view from the front, ii) view from the right and iii) the view from above.




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 |