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

II B. Tech II Semester Regular Examinations April/May – 2013
MACHINE DRAWING
(Com. to ME, AME)

Time: 3 hours Max. Marks: 75

Note: Answer any **TWO** Questions from **PART-A**.
PART-B is compulsory.

PART - A

(12.5M×2=25M)

1. Draw the sectional front view of double riveted chain butt joint (Thickness of plate in 10mm)

2. Sketch the following thread profiles for a nominal diameter of 25 mm and pitch 3 mm and give their applications:
   a) BSW thread, b) ACME thread and c) Worm thread.

3. Sketch the conventional representation of the following:
   a) Semi- elliptical leaf springs with eyes, b) Square on shaft,
   c) Cylindrical compression springs d) Bearings

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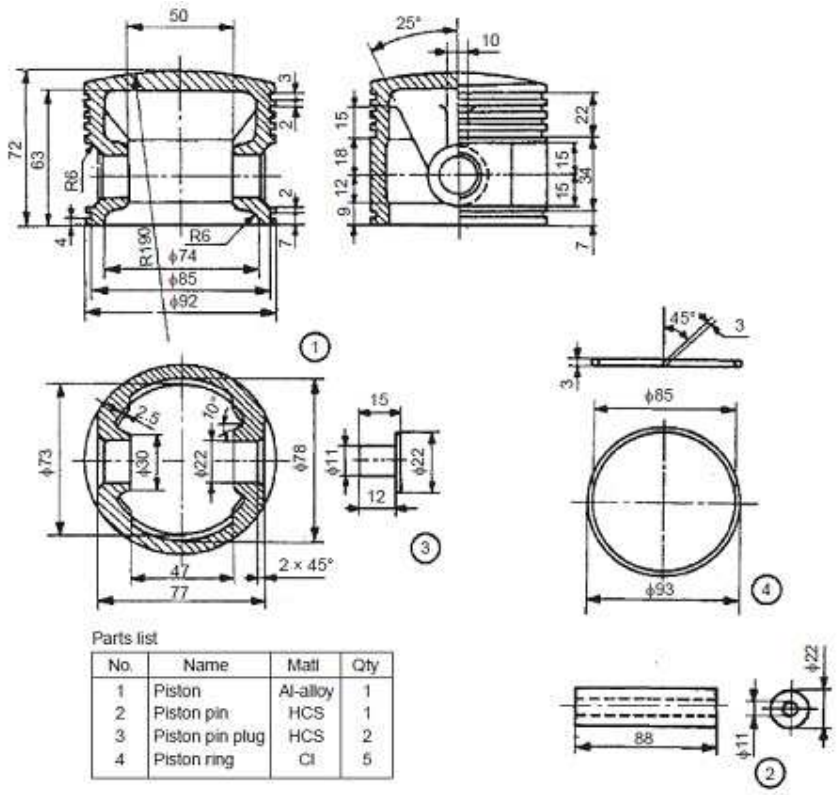
PART-B

(50M)

4. Assemble the parts of the piston, shown Figure and draw the following views:
   i) Sectional front view, *ii*) Half sectional left side view *iii*) Sectional top view.



Parts list

No.	Name	Matl	Qty
1	Piston	Al-alloy	1
2	Piston pin	HCS	1
3	Piston pin plug	HCS	2
4	Piston ring	CI	5

Figure Piston

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II B. Tech II Semester Regular Examinations April/May – 2013
MACHINE DRAWING
(Com. to ME, AME)

Time: 3 hours Max. Marks: 75

Note: Answer any **TWO** Questions from **PART-A**.
PART-B is compulsory.

PART - A

(12.5M×2=25M)

1. Draw the half sectional front view (with top half in section) and the side view of a cotter joint with socket and spigot ends, to connect two rods of 50 mm diameter each

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

3. Sketch the conventional representation of the following:
   a) Diamond knurling, b) Square on shaft,
   c) Cylindrical compression springs d) assembled threads in section

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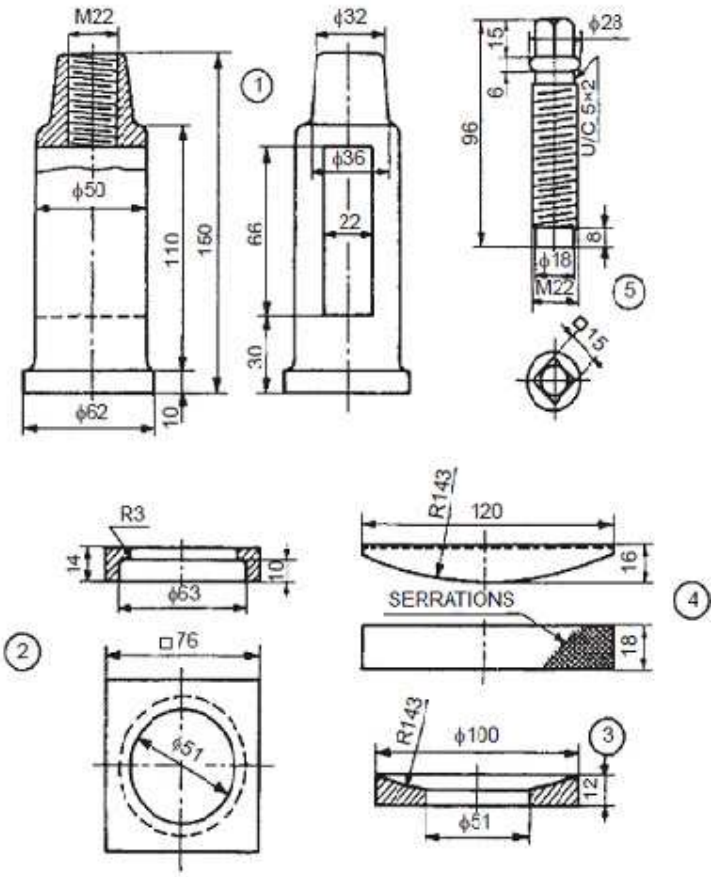
PART-B

(50M)

4. Draw the assembled front view and top view for the part drawings of the Tool post using conventions and easy drawing proportions



Parts list

No.	Name	Matl	Qty
1	Piller	MCS	1
2	Block	MCS	1
3	Ring	MS	1
4	Wedge	MCS	1
5	Screw	TS	1

Tool Post

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

II B. Tech II Semester Regular Examinations April/May – 2013
MACHINE DRAWING
(Com. to ME, AME)

Time: 3 hours Max. Marks: 75

Note: Answer any **TWO** Questions from **PART-A**.
PART-B is compulsory.

PART - A

(12.5M×2=25M)

1. Sketch the following types of keys in two views, as fitted in position between a shaft and the mounting. Choose the shaft diameter as 30 mm and the hub diameter of the mounting as 60 mm: *a*) hollow saddle key, *b*) taper sunk key, *d*) single headed feather key,

2. Sketch the following thread profiles for a nominal diameter of 25 mm and pitch 3 mm and give their applications:

   a) BSW thread, b) Buttress thread c) Square thread,

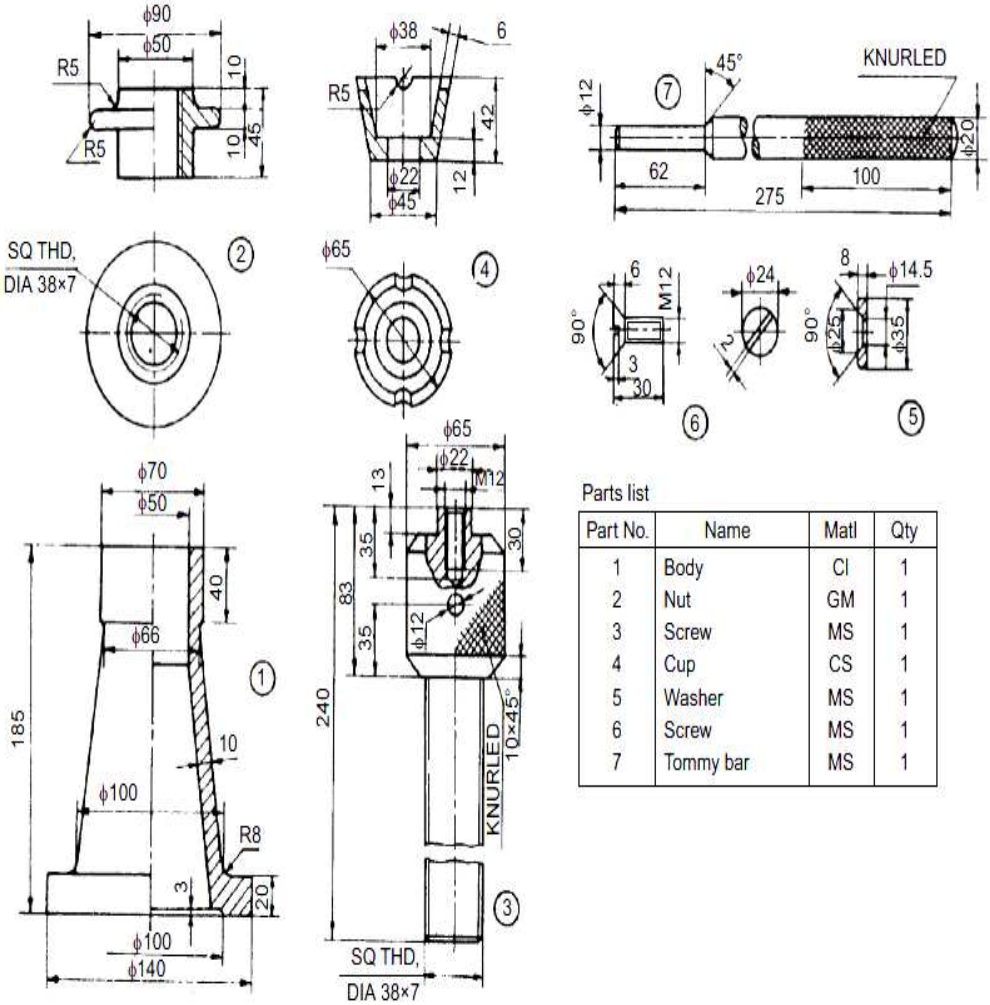
3. Sketch the conventional representation of the following: *a*) Holes on circular pitch, *b*) Square on shaft, *c*) Cylindrical tension springs *d*) assembled threads in section.

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

PART-B

(50M)

4. Draw the assembled front view and top view for the part drawings of the screw jack using conventions and easy drawing proportions



Parts list

Part No.	Name	Matl	Qty
1	Body	CI	1
2	Nut	GM	1
3	Screw	MS	1
4	Cup	CS	1
5	Washer	MS	1
6	Screw	MS	1
7	Tommy bar	MS	1

Screw jack

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

II B. Tech II Semester Regular Examinations April/May – 2013
MACHINE DRAWING
(Com. to ME, AME)

Time: 3 hours Max. Marks: 75

Note: Answer any **TWO** Questions from **PART-A**.
PART-B is compulsory.

PART - A

(12.5M×2=25M)

1. Draw half sectional front view (top half in section) of a split-muff coupling, indicating proportions to connect two shafts, each of diameter 50 mm.

2. Draw the three views of a square headed bolt of nominal diameter 25mm and length 100mm; with a square nut and washer.

3. Sketch the conventional representation of the following:

   a) External threads, b) internal threads, c) splined shafts

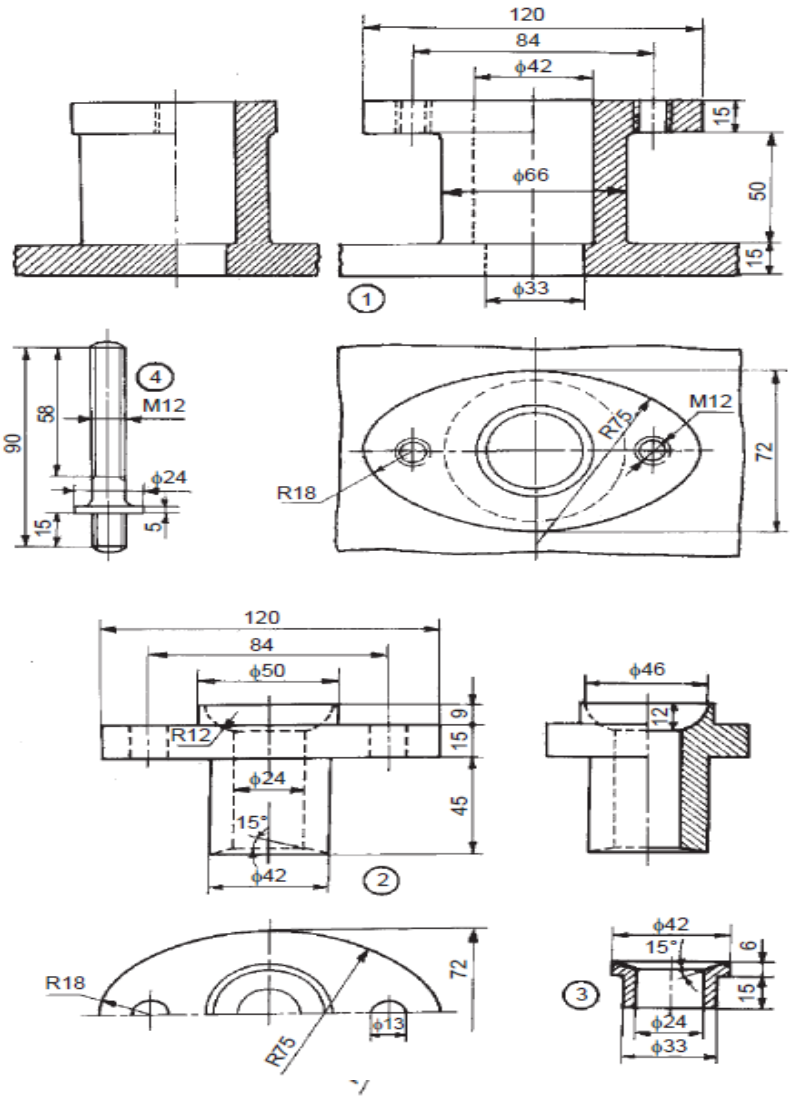
   d) Assembled threads in section

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

PART-B

(50M)

4. Assemble all parts of the stuffing box for a vertical steam engine, shown in Figure and draw, *i*) half sectional front view (with left half in section), *ii*) view from above.



Parts list

Part No.	Name	Matl	Qty
1	Body	CI	1
2	Gland	Brass	1
3	Bush	Brass	1
4	Stud	MS	2
5	Nut, M12	MS	2

Figure Stuffing Box