

01/06/2012 – 11.30am to 2.30pm

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10ME36A/46A

Third/Fourth Semester B.E. Degree Examination, June 2012
(ME/IP/IM/MA/AE)

COMPUTER AIDED MACHINE DRAWING

Time: 3 Hours

Max. Marks: 100

- Note: 1. Answer any ONE question from each of the parts A, B and C.
2. Use FIRST ANGLE Projections only.
3. If any data is missing it may be suitably assumed and mentioned.
4. All the calculations should be on the answer sheet supplied.
5. All the dimensions are in mm.
6. Drawing instruments may or may not be used for sketching.
7. Part C assembled view should be in 3-D and other views in 2-D

PART – A

- 1) A cube of 30mm edges is cut by a section plane so that the true shape of section is a regular hexagon. Draw the projections of the cube and find the inclination of the section plane with HP. Also measure the length of the sides of the regular hexagon in the true shape of section.

[20 Marks]

- 2) Draw two views of a hexagonal headed bolt and nut with washer (assembly) for a 25mm diameter bolt. Take the length of the bolt equal to 125mm.

[20 Marks]

PART – B

- 3) Draw the sectional front view and top view of a single-riveted butt joint with double cover straps to connect two plates of 12mm thickness. Use snap head rivets and show all the calculations on the answer sheet. Use chain riveting arrangement.

[20 Marks]

- 4) Draw the side view and sectional front view of an Oldham's coupling by taking the shaft diameter as 25mm.

[20 Marks]

PART – C

5) Figure 1 & 2. Shows the details of a Tool Head of a shaper. Assemble the parts and draw i) Front View ii) Side view in section iii) Assembled 3D view.

[60 Marks]

[60 Marks]			
Part no	Description	Material	No .Off
1	BACK PLATE	CAST STEEL	1
2	VERTICAL SLIDE	CAST STEEL	1
3	ADJUSTABLE STRIP	Fe 410 W	1
4	GRUB SCREW	Fe 410 W	5
5	SCREW ROD	Fe 410 W	1
6	SPACER BUSH	Fe 410 W	1
7	HANDLE BAR	Fe 410 W	1
8	ROUND KEY	Fe 410 W	1
9	NUT M10	Fe 410 W	1

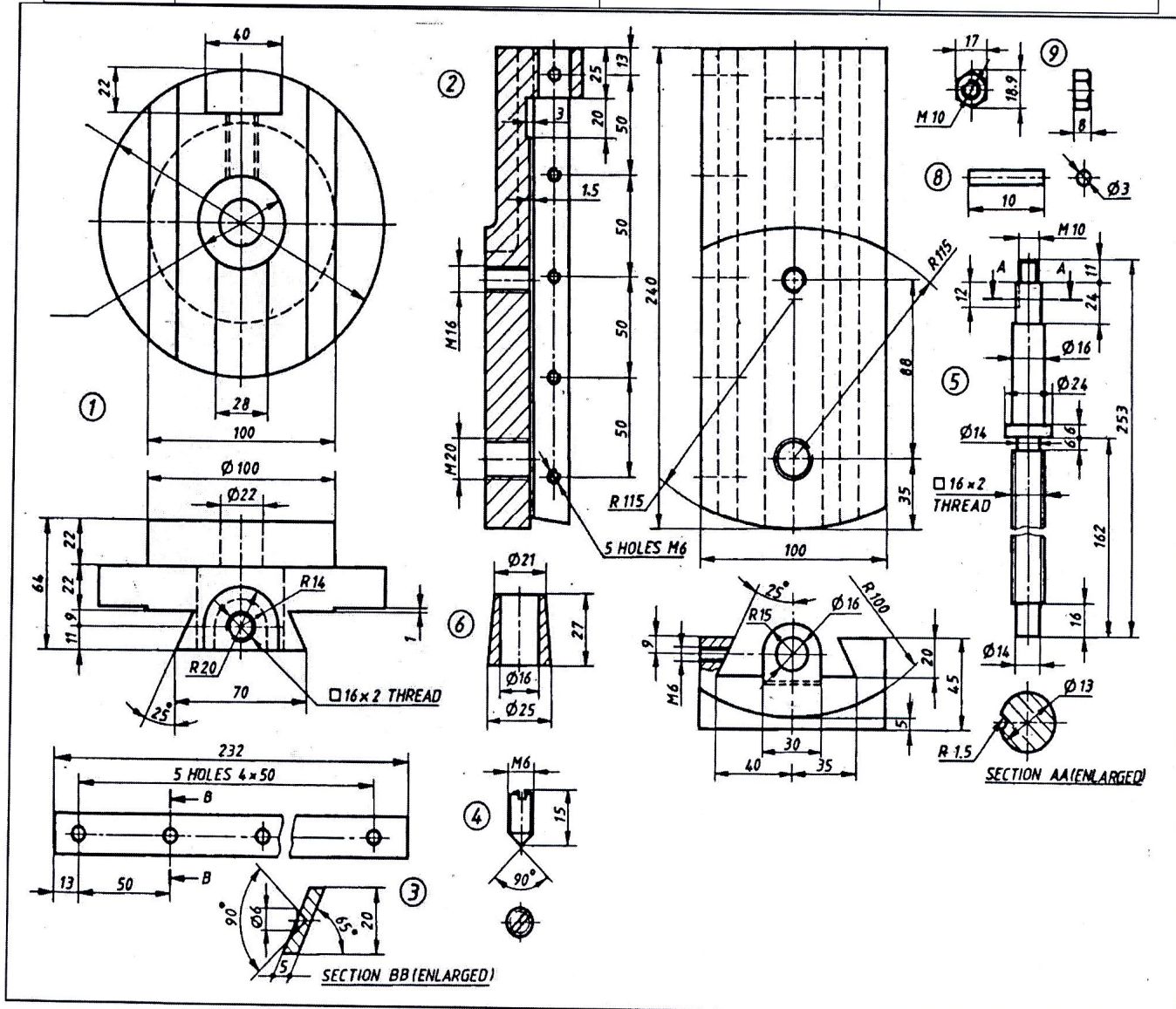
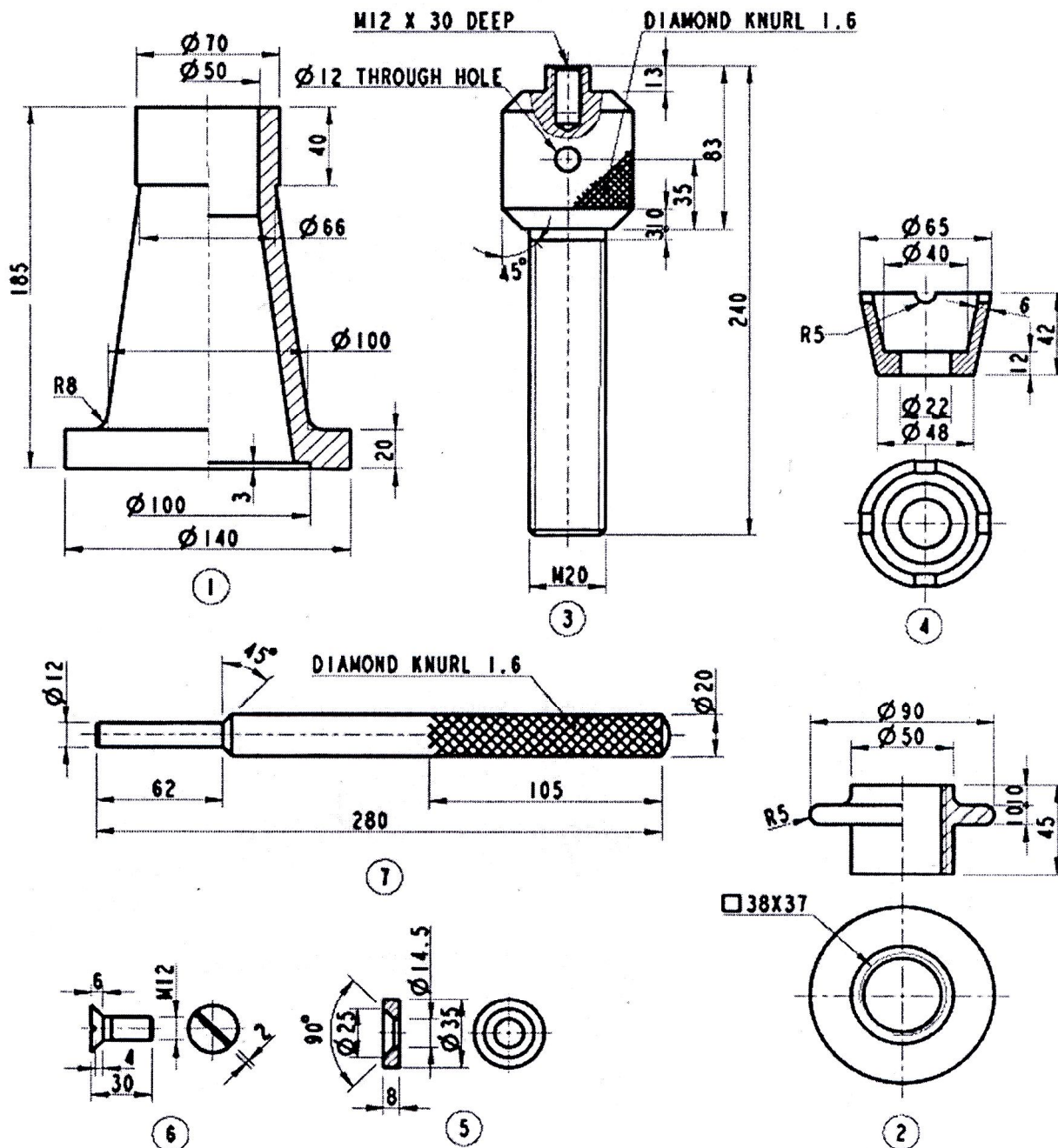


FIGURE 1

- 6) Figure 3. Shows the details of a Screw Jack. Assemble the parts and draw i) Sectional Front View ii) Top view iii) Assembled 3D view.

[60 Marks]



7	TOMMY BAR	Fe 410W	1
6	CSK SCREW	Fe 410W	1
5	WASHER SPECIAL	Fe 410W	1
4	CUP	CAST STEEL	1
3	SCREW-SPINDLE	Fe 410W	1
2	NUT	GUN METAL	1
1	BODY	CAST IRON	1
PART No.	DESCRIPTION	MATL.	No. OFF

Fig. 9.2 Detail of Parts View of Screw Jack
FIGURE 3