

MACHINE DRAWING
(Mechanical Engineering)

Time: 3 hours

Max. Marks: 70

Answer all questions

All answers should be on drawing sheet only and they alone will be valued

First angle projection to be adopted

Section – I

Answer any two of the following (2 × 4 = 08 Marks)

- 1 Sketch the conventional representation of the following materials.
(i) Bronze. (ii) Cast iron. (iii) Gravel. (iv) Plywood.
- 2 Sketch the conventional representation of the following:
(i) Splined shaft. (ii) Cylindrical compression spring.
- 3 Sketch the following thread profile for a nominal size of 30 x 3 mm, to a scale of 10:1.
(i) V thread. (ii) ACME thread.

Section – II

Answer any two of the following (2 × 10 = 20 Marks)

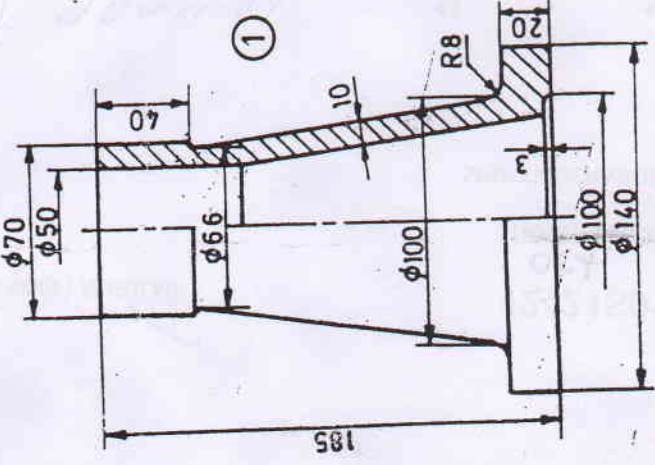
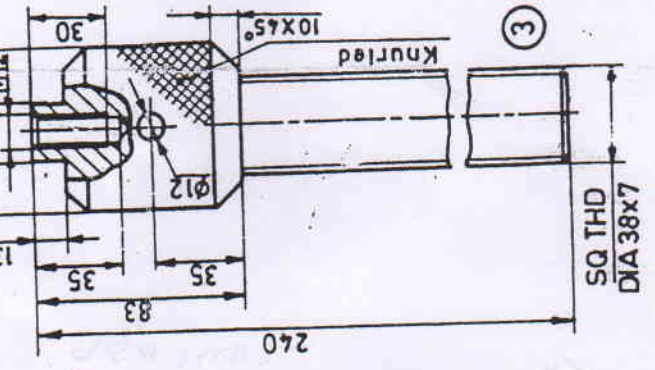
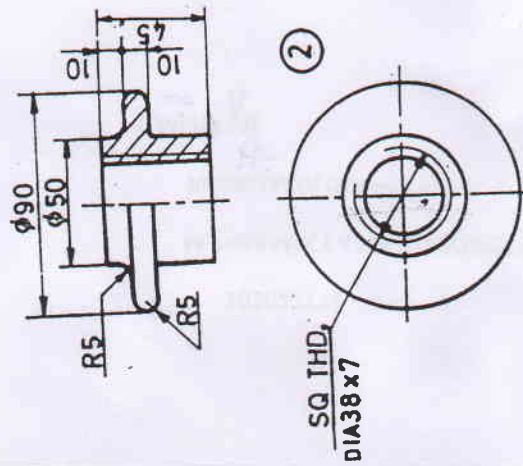
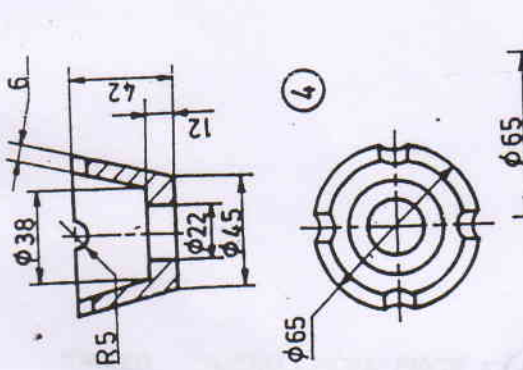
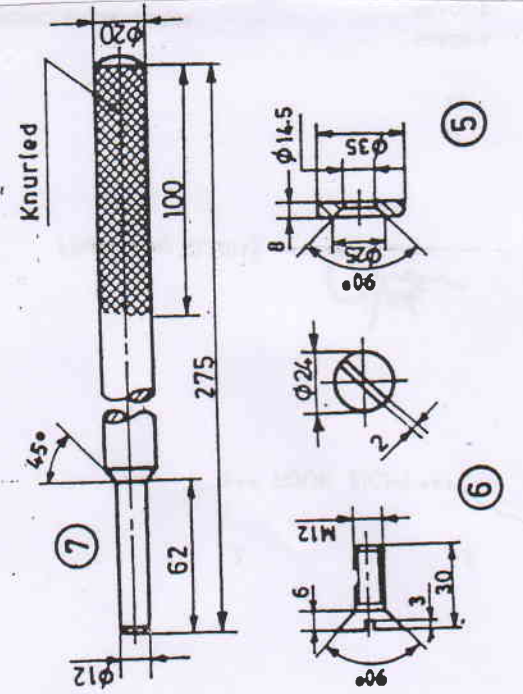
- 4 Draw three views of a hexagonal headed bolt of nominal diameter 30 mm and length 100 mm with a Hexagonal nut and a washer in position.
- 5 Draw the half sectional view from the front and view from the left of a simple flanged coupling to connect two shafts of dia. 'D' and mark proportions on the views.
- 6 Draw the half sectional view from the front (Top half in section) and view from the left of a socket and spigot joint connecting two pipes of dia. 'D' and mark proportions on the views.

Section – III

Answer the following (1 × 42 = 42 Marks)

- 7 Assemble all parts of the Screw Jack given in the figure and draw:
(i) Half sectional view from the front (with right half in section).
(ii) View from the above.
(iii) View from the right.

Contd. in page 2



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