**Code: 13A03303**

B.Tech II Year I Semester (R13) Supplementary Examinations June 2016
# MACHINE DRAWING
(Mechanical Engineering)

Time: 4 hours                                                                                                      Max. Marks: 70

All answer should be on the drawing sheet only
Answers on the drawing sheet only will be valued
First angle projections to be adopted
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## Section – I
Answer any two of the following ( 2 × 4 = 08 Marks)

1       Sketch the conventional representation of the following:
(a)   Tin.
(b)   Marble.
(c)   Wax.
(d)   Aluminium.

2       Draw the conventional representation of Spur gear and tension spring.

3       Sketch the following thread profiles for nominal size of 30 x 3 mm using suitable scale:
(a)   B.S.W thread.
(b)   Worm thread.

## Section – II
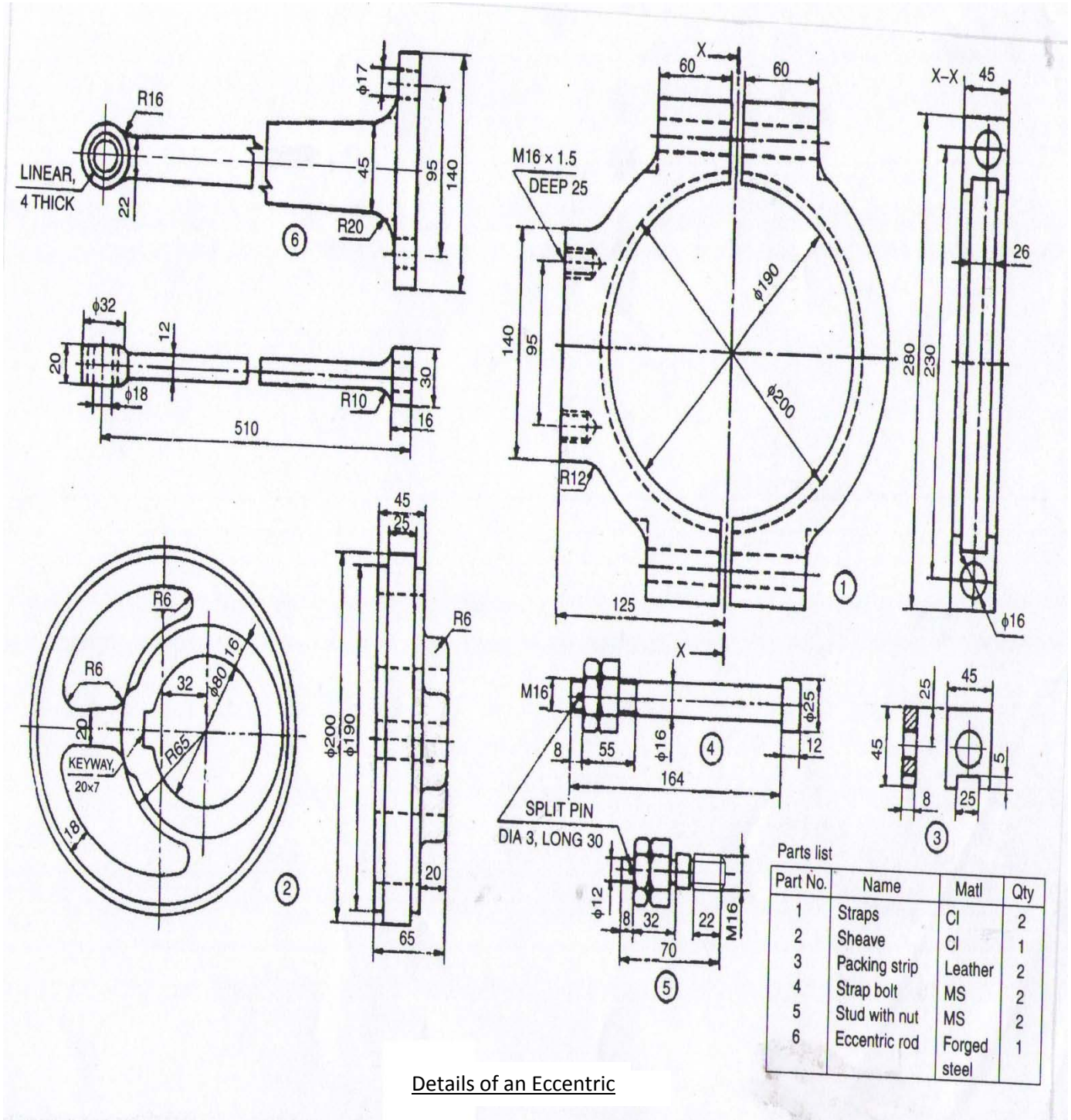Answer any two of the following ( 2 × 10 = 20 Marks)

4       Sketch any three types of machine screws of 10 mm diameter.

5       Sketch the sectional front view and side view of a protected flanged coupling indicating proportions to connect two shafts each of diameter 30 mm.

6       Draw sectional front view and top view of the double riveted, double strap chain butt joint of plates of thickness 10 mm.

## Section – III
Answer the following (1 × 42 = 42 Marks)

7       The details of an Eccentric are shown in figure below. Assemble the parts and draw:
(a)   Half sectional view from the front with top half in section.
(b)   View from the right and view from above.

Details of an Eccentric

| 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 |

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