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Code No.: 21412 S

**VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD**  
**B.E. II Year (Mech. Engg.) I-Semester Supplementary Examinations, May/June-2017**

**Machine Drawing**

Time: 3 hours

Max. Marks: 70

*Note: Answer ALL questions in Part-A and any FIVE from Part-B*

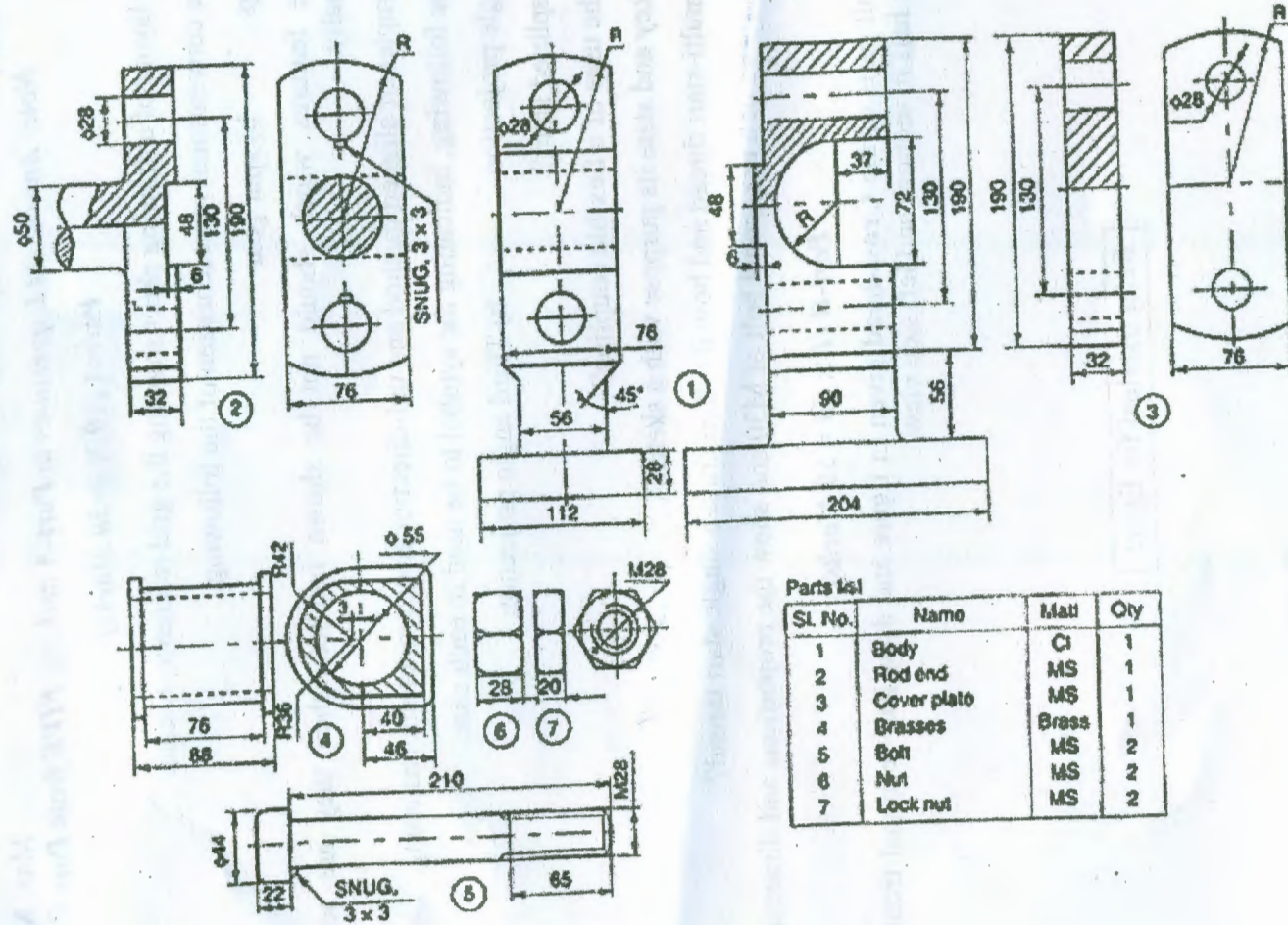
**Part-A (10 X 2=20 Marks)**

1. Draw the layout of a drawing sheet showing the grid reference system.
2. Sketch the conventional representation of the following.  
a) bearings                      b) spur gear
3. Name the features which should not be shown hatched when they are sectioned longitudinally.
4. Show examples of aligned method and uni-directional system of dimensioning.
5. Explain the following, indicating the symbol to be used in each case.  
a) First angle projection                      b) Third angle projection
6. What is a splined shaft?
7. What are the uses of a flexible coupling?
8. What is a key and state its purpose with a sketch.
9. What is a multi-start thread and how it differs from a single start thread?
10. Sketch two views of a hexagonal bolt of M30 and show the proportions and dimensions.

**Part-B (1 × 50 = 50 Marks)**

11. Assemble all parts of the **Cross-head** given in figure and draw half-sectional front view (with upper half in section) and left side view.

Refer overleaf for figure



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	MS	2
6	Nut	MS	2
7	Lock nut	MS	2

Fig. Cross-head