

SEM) III (R)
MACHINE DRAWING

Con. 2737-09.

VR-3258

(REVISED COURSE)

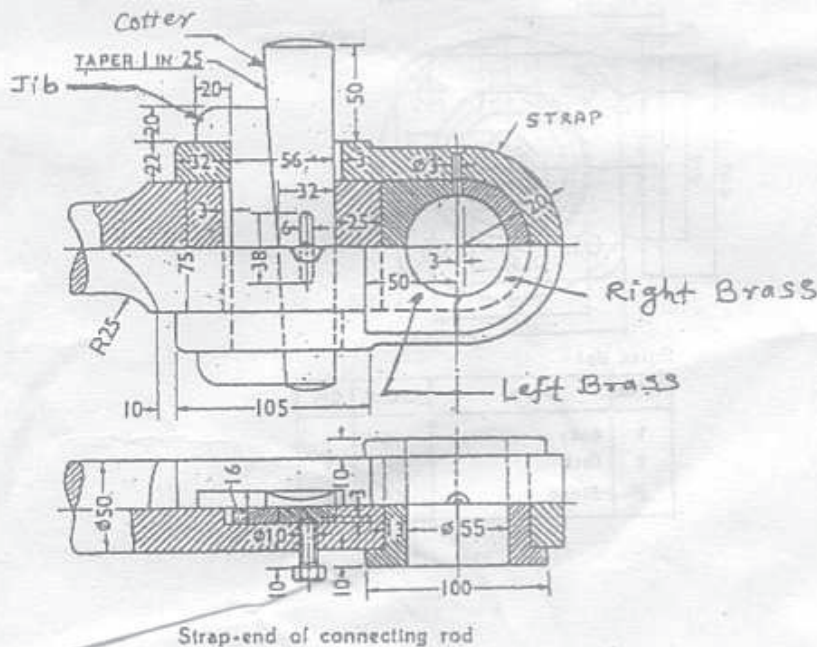
(4 Hours)

[Total Marks : 100

- N.B.:(1) Question No. 1 is compulsory.
 (2) Attempt any four questions from the remaining .
 (3) Use your judgement for any unspecified dimension.
 (4) Use only drawing sheet for answering.

1. (a) A square prism, side of base 50 mm and height 70 mm, is resting on H.P. on its base with one of edges/side of the base inclined at 30° to V.P. The above prism is penetrated by horizontal square prism side of base 32 mm and length 100 mm. Rectangular faces of the horizontal prism are equally inclined to H.P. and V.P. both. The axes of two prism bisect at right angle. Draw the projection and show the lines of intersection. 12
N.A.S.P.R.
Page ①
- (b) A vertical cone of base diameter 90 mm and 100 mm height has an axial triangular hole of 50 mm side cut through it one of the faces of the hole is parallel to V.P. and nearer to it. Draw front view and top view showing curves of intersection. 8

2. Figure shows an assembly of strap end of connecting rod. Draw the detail drawing of
- | | | |
|---------------------------------------|-------------------------------|---|
| (a) Strap : | (i) Sectional front view | 4 |
| | (ii) Top View | 3 |
| (b) Left Brass : | (i) Upper half sectional F.V. | 3 |
| | (ii) Top View | 2 |
| | (iii) Left hand Side view | 2 |
| (c) Jib : Front view and top view | | 3 |
| (d) Cotter : Front view and Top view. | | 3 |



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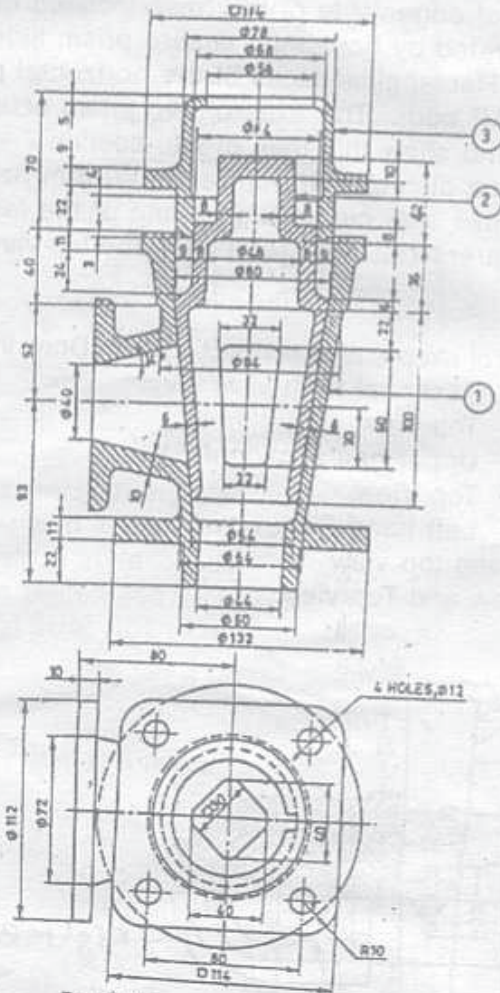
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Page 2

3. Figure shows an assembly of a Blow-off cock.

Draw the following views for :-

- (a) Body : (i) Sectional front View
- (ii) Top View
- (b) Cock : (i) Sectional front View
- (ii) Top View
- (c) Gland : (i) Sectional front View
- (ii) Top View

4
4
3
3
3
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Parts list

Part No	Name	Material	Qty
1	Body	CS	1
2	Cock	GM	1
3	Gland	CS	1

Blow-off cock

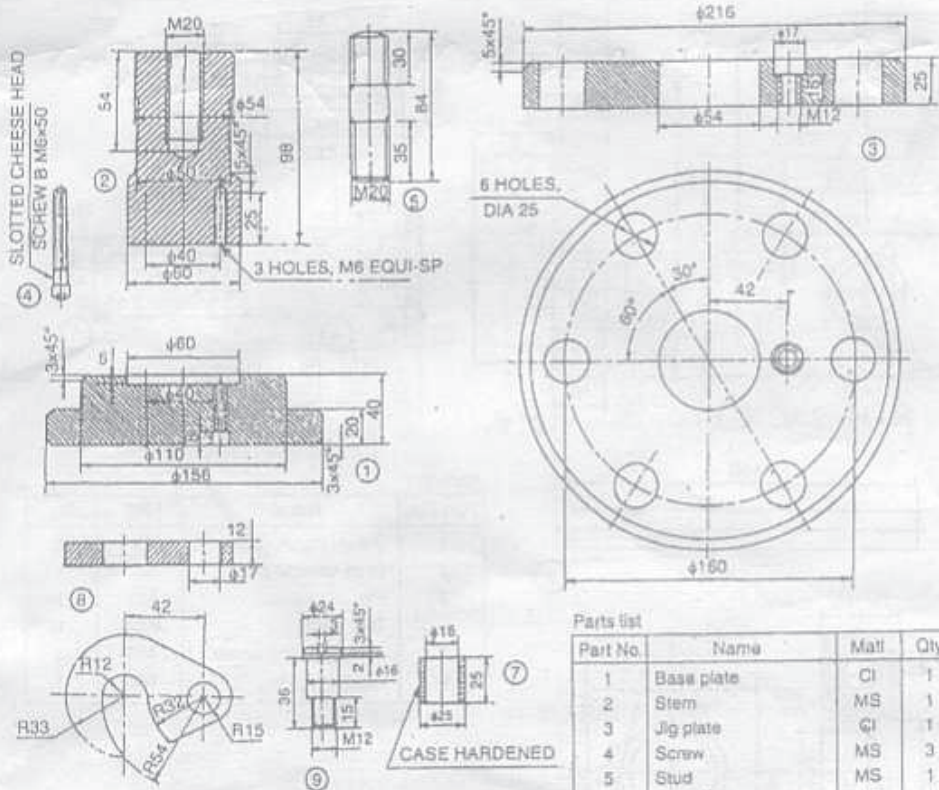
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4. Figure shows details of Drill Jib. Assemble the parts and draw the following views :-

- (a) Sectional front view
- (b) Top view

Page 12
8



Parts list

Part No.	Name	Matl	Qty
1	Base plate	CI	1
2	Stem	MS	1
3	Jig plate	CI	1
4	Screw	MS	3
5	Stud	MS	1
6	Nut M20	MS	1
7	Bush case hardened	Steel	6
8	Latch washer	MS	1
9	Screw	MS	1

Drill jig

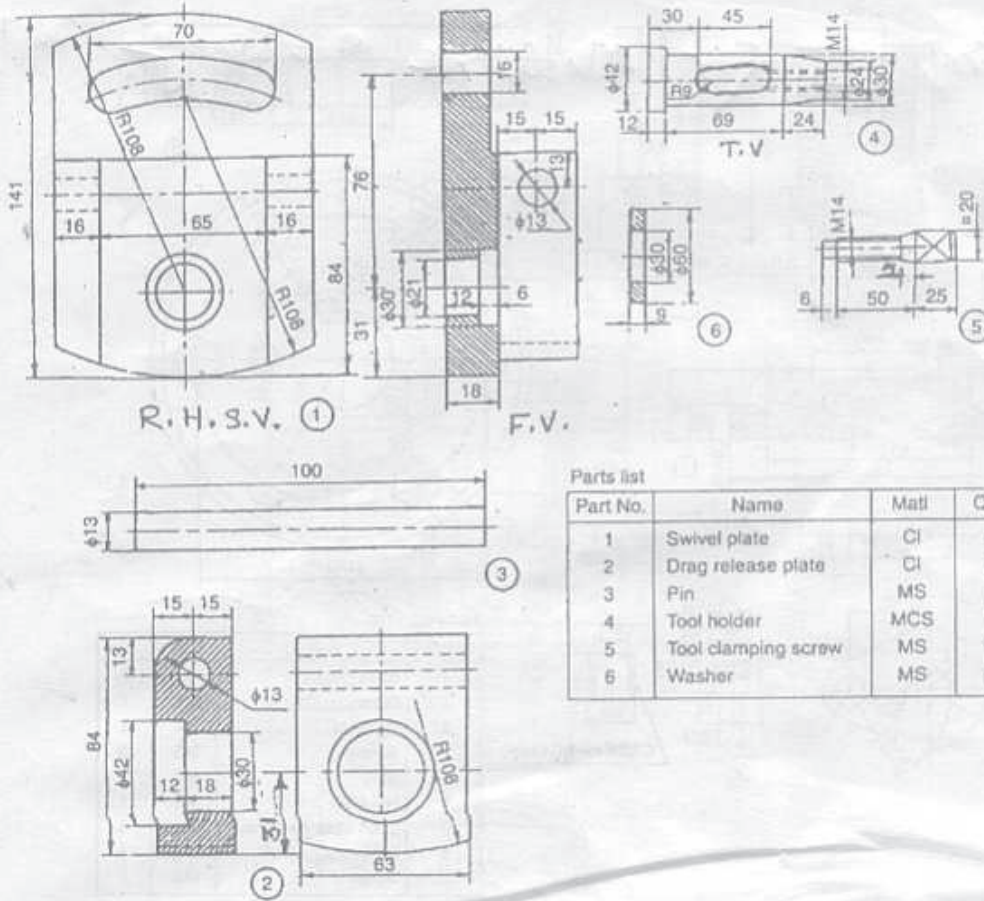
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5. Figure shows details of clapper block. Assemble the components in working position and draw.

- (a) Sectional front view
- (b) Top view

Page 4
12
8



Parts list

Part No.	Name	Matl	Qty
1	Swivel plate	CI	1
2	Drag release plate	CI	1
3	Pin	MS	1
4	Tool holder	MCS	1
5	Tool clamping screw	MS	1
6	Washer	MS	1

Clapper block

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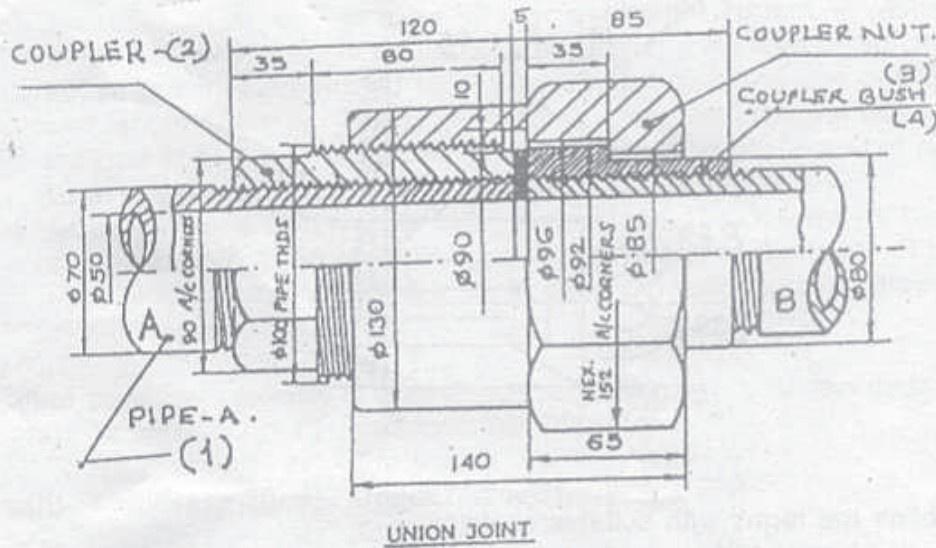
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6. (a) **Figure** show the assembly of "Union joint" used for pipe of 50 mm bore.
Draw the details as follows :—

Page 5

- (i) Coupler (2) : (1) Upper half Sectional F.V. 4
 (2) L.H.S.V. 3
- (ii) Coupler Bush (4) : (1) Sectional F.V. 3
 (2) R.H.S. View 2



- (b) Make neat free hand sketches of the following any two, in two view each. 8
- (i) Old Ham Coupling
 - (ii) Fast and Loose Piley
 - (iii) Foot Step Bearing.

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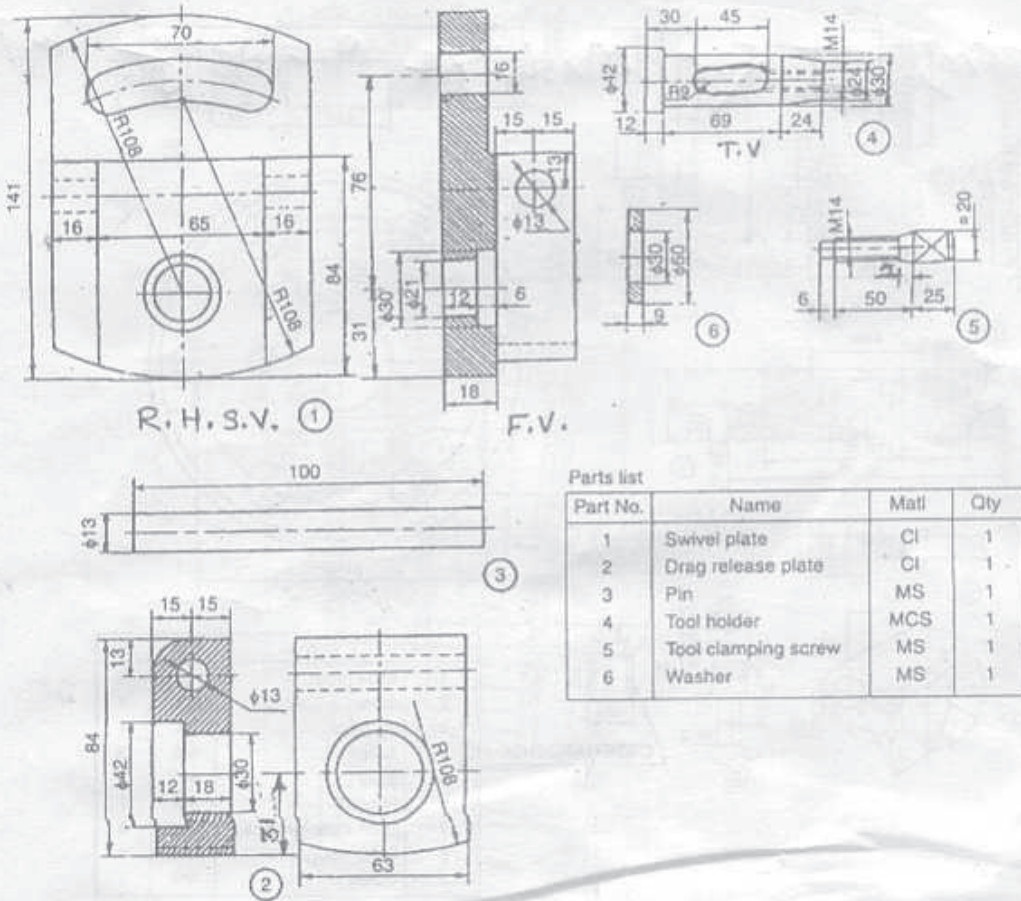
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5. Figure shows details of clapper block. Assemble the components in working position and draw.

- (a) Sectional front view
- (b) Top view

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Parts list

Part No.	Name	Matl	Qty
1	Swivel plate	CI	1
2	Drag release plate	CI	1
3	Pin	MS	1
4	Tool holder	MCS	1
5	Tool clamping screw	MS	1
6	Washer	MS	1

Clapper block

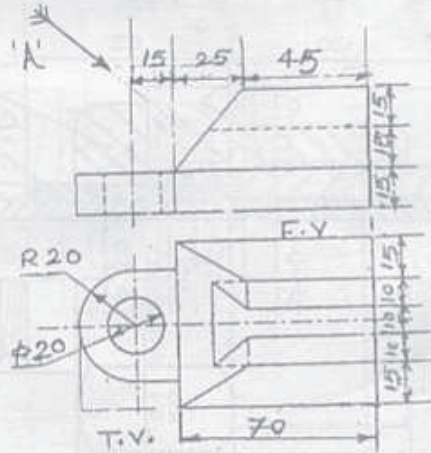
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7. (a) Figure shows the front view and top view of an object. Draw the following :-

- (i) F.V. and T.V.
- (ii) L.H.S.V.
- (iii) Auxiliary view from the direction of arrow "A".

Page 6
2
4
6



(b) Define the terms with suitable sketches :

- (i) Upper and lower deviation
- (ii) Tolerance zone
- (iii) Basic Dimension
- (iv) Actual size.