

USN HV P J S MB O I L

18ME36A/18MEA306/18MA36

Third Semester B.E. Degree Examination, December 2019

COMPUTER AIDED MACHINE DRAWING

Time: 3 Hours

Max. Marks: 100

Note: 1. Answer any one question from each of the parts A,B,C

2. Use **FIRST ANGLE** projection only.

3. Missing data if any may suitable be assumed

4. All the calculations should be on answer sheet supplied

5. All the dimensions are in mm

6. Part C Assembled View should be in 3D and the other 2 views in 2D

PART-A

Q. No. 1 A regular hexagonal pyramid, base 30 mm side and axis 70 mm long is resting on its base on HP with the two opposite base edges parallel to VP. It is cut by a section plane perpendicular to VP and inclined at  $45^\circ$  to HP and intersecting the axis at a point 30 mm above the base. Draw its front view, sectional top view and the true shape of section.

(25 Marks)

Q. No. 2 Draw two views of Hexagonal headed bolt with nut of size M20 X 100

(25 Marks)

PART-B

Q. No. 3 Draw a knuckle joint to connect two rods of 25 mm diameter showing sectional front view and top view. Indicate all the proportions with dimensions.

(25 Marks)

Q. No. 4 Draw two views of a pin type Flexible coupling of diameter of shaft of 25 mm

(25 Marks)

PART-C

Q. No. 5 Figure: 1 Shows the details of "Machine Vice". Assemble the parts and draw the following: a) Sectional front view b) Top view

(50 Marks)

Q. No. 6 Figure: 2 Shows the details of "Lever safety Valve". Assemble the parts and draw the following: a) Sectional front view b) Top view

(50 Marks)

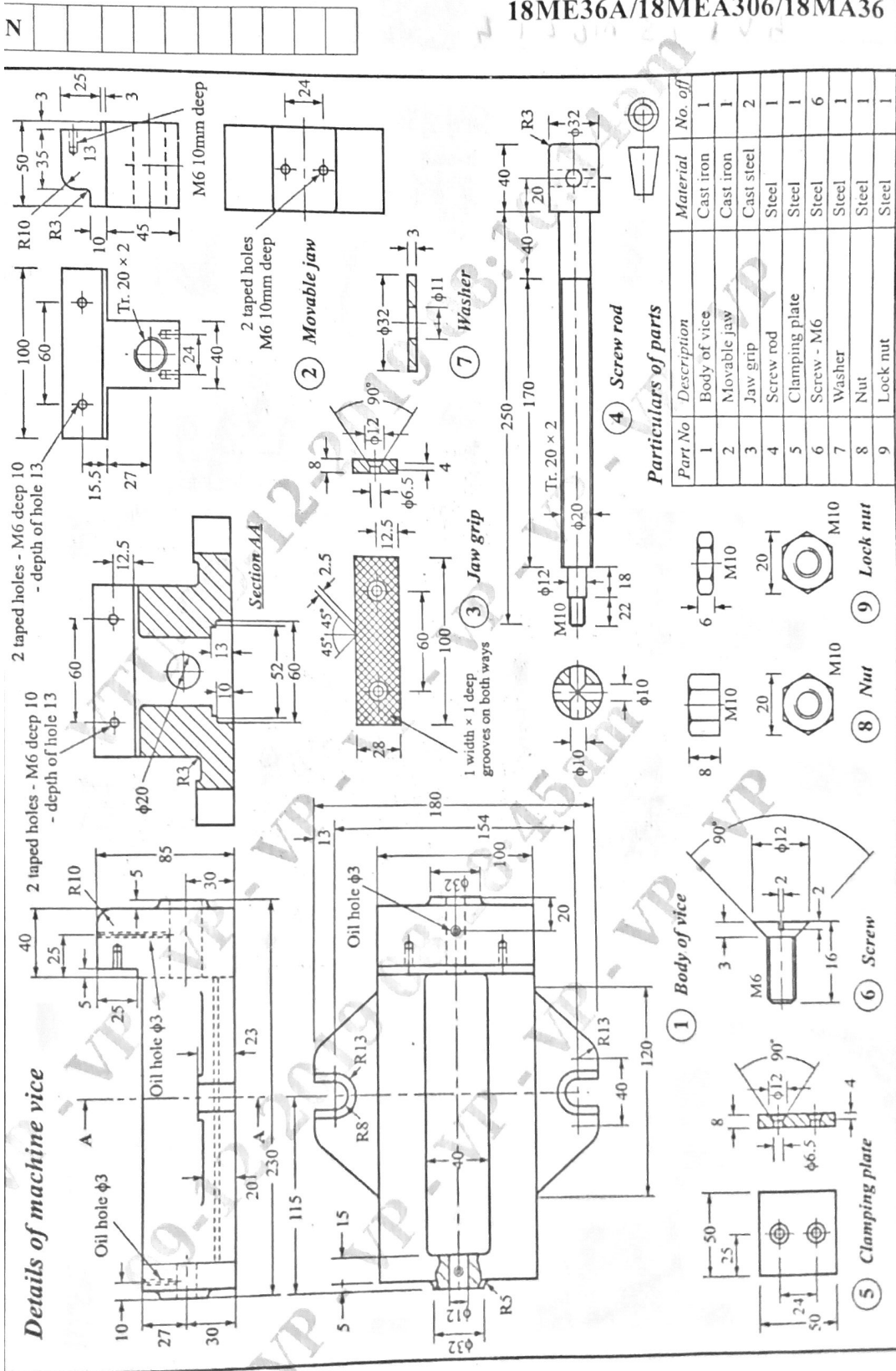
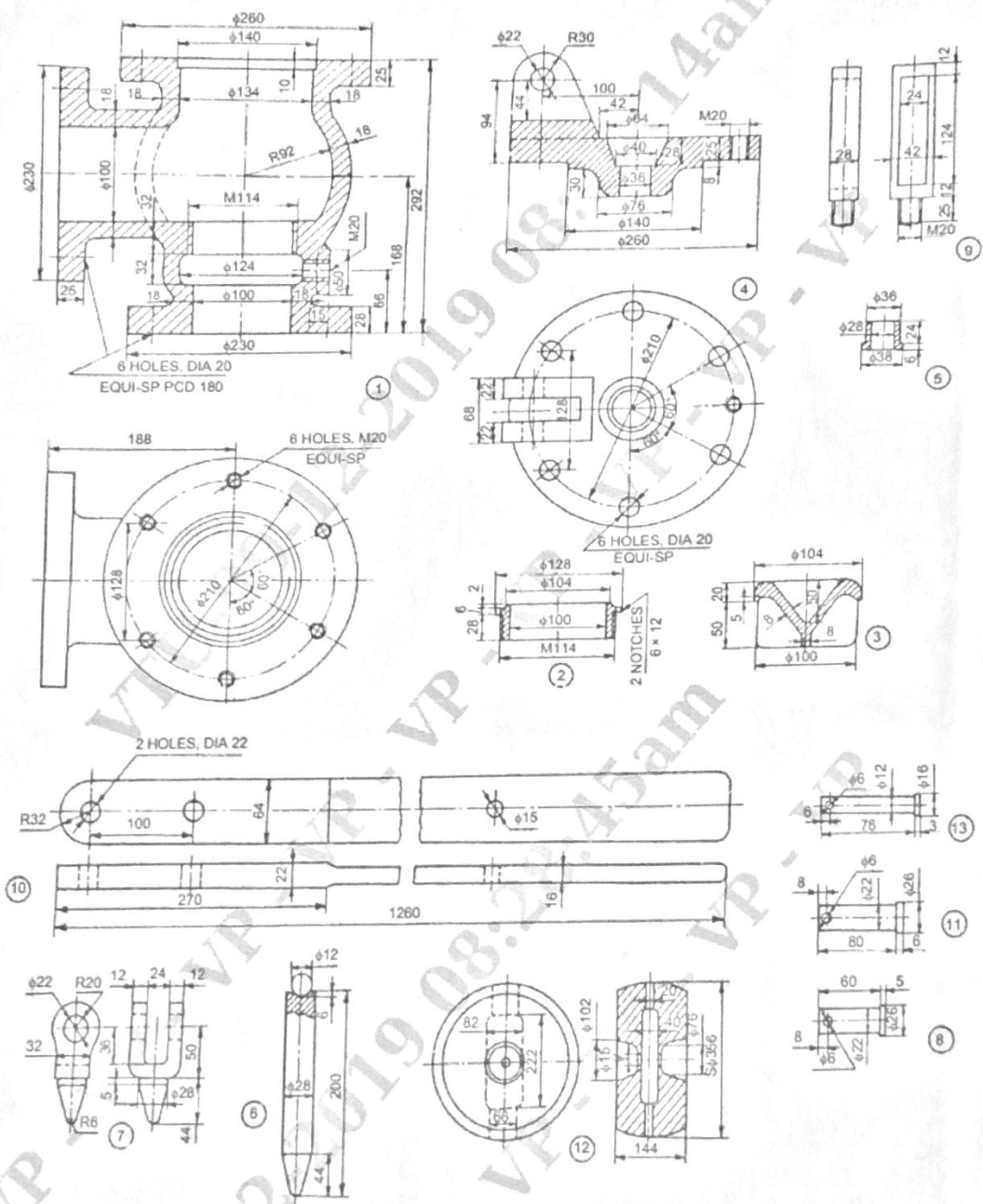


Figure 1: Details of Machine Vice

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Parts list

Part No	Name	Matl	Qty	Part No	Name	Matl	Qty
1	Body	CI	1	8	Toggle-pin	MS	1
2	Valve seat	GM	1	9	Lever guide	MS	1
3	Valve	GM	1	10	Lever	FS	1
4	Cover	CI	1	11	Fulcrum pin	MS	1
5	Cover bush	Brass	1	12	Weight	CI	1
6	Spindle	MS	1	13	Lever pin	MS	1
7	Toggle	MS	1	14	Stud with nut M20	-	6

Figure 2: Details of Lever safety Valve