



VISION

"To incorporate technical & professional skills in Mechanical Engineers to fulfil industrial & social needs".

MISSION

- *To educate, guide, and mentor the students for academic excellence.*
- *To develop technical skills and discipline among the students as per the requirement of the industry.*
- *To impart ethics & social values by arranging social activities.*

SYME

Subject Name: MWD (22341)

Sheet No. 1

Questions.

1. A square prism side of base 45mm and axis length 90mm has its axis vertical and rectangular faces equally inclined to VP. A square hole of sides 30mm is drilled through the prism completely such that the axis of the hole is perpendicular to VP and bisect the axis of vertical square prism. The side of square hole are equally inclined to HP. Draw DLS with effect of hole.
2. A right circular cone diameter of base 60mm and axis 60mm long is resting on its base on HP. It is cut by a section plane perpendicular to front view, top view and DLS of the cone.
3. A cylinder with base diameter 66mm and axis length 84mm has its base in HP. A square hole of side 36mm is punched centrally having its sides equally inclined with HP. Draw the DLS with hole.
4. A square pyramid of 60mm side of base and 80mm axis height rests vertically on its base with the adjacent edges of the base equally inclined to VP. A circular hole of 40mm diameter is drilled through the pyramid so that the axis is perpendicular to the VP and parallel to the HP. The axis of the hole is intersecting the axis of the pyramid at 25mm above the base. Develop the lateral surface of the pyramid.



VISION

“To incorporate technical & professional skills in Mechanical Engineers to fulfil industrial & social needs”.

MISSION

- *To educate, guide, and mentor the students for academic excellence.*
- *To develop technical skills and discipline among the students as per the requirement of the industry.*
- *To impart ethics & social values by arranging social activities.*

SYME

Subject Name: MWD

Sheet No. 2

Questions.

1. A square prism side of base 40mm height 75mm is kept on the HP on its base with its rectangular faces equally inclined to VP. It is penetrated by a horizontal square prism of side of base 30mm, axis length 75mm such that axis of the two prisms bisects each other at right angles. The two rectangular faces of the horizontal square prism are equally inclined to HP and angles. The two rectangular faces of the horizontal square prism are equally inclined to HP and axis is parallel to both HP and VP. Draw the projections of solid showing the lines of intersection axis is parallel to both HP and VP. Draw the projections of solids showing the lines of intersection.

2. A vertical square prism base 50mm side and height 90mm is completely penetrated by a horizontal square prism base 35mm side and axis length 90mm so that their axes are 6mm apart. The axis of the horizontal prism is parallel to the VP while the faces of both prism are equally inclined to the VP. Draw the projections of the prisms showing lines of intersection.

3. A vertical square prism 50mm side of base and 100mm long having its faces equally inclined to the VP is completely penetrated by a horizontal cylinder 40mm diameter and 100mm long the axis of which is parallel to VP and 6mm away from that of axis of prism. Draw the projection of the solids showing curves of intersection.

4. A vertical cylinder of 60mm diameter is penetrated by another cylinder of the same size. The axis of penetrating cylinder is parallel to both HP and VP and is

10mm away from the axis of the vertical cylinder .Draw the projections of two cylinder showing curves of intersection. Assume the length of vertical cylinder as 90mm and horizontal cylinder with length 100mm.

5. A vertical cylinder of diameter 70mm and height 100mm is completely penetrated by a horizontal square prism of side 50mm and length 110mm.The axes of the prism bisect the axis of the cylinder. All the rectangular faces of the prism are equally inclined to HP. Draw FV, TV and SV showing the curves of intersection.

6. A cone with base diameter 80mm and axis height75mm is kept on the HP on its base It is penetrated by a horizontal cylinder of the diameter 40mm with axis parallel to VP and intersections the axis of the cone at a Distance of 25mm above the base of the cone .Draw the projections of the solids showing curves of intersection.

7.a cylinder of 80mm diameter is resting on HP on its base A cone diameter of base 90mm and height 110mm penetrates the cylinder at right angle .The axis of the cone is parallel to HP and VP both. Apex of the cone reaches 60mm beyond the axis of cylinder .Draw the projects and show the line intersections.

8. A vertical cone diameter of base 80mm and axis 90mm long is completely penetrated by a cylinder of 44mm diameter. The axis of the cylinder it's parallel to HP and VP and intersect the axis of the cone at a point 25mm above the base. Draw the projections showing curves of intersection.



VISION

“To incorporate technical & professional skills in Mechanical Engineers to fulfil industrial & social needs”.

MISSION

- *To educate, guide, and mentor the students for academic excellence.*
- *To develop technical skills and discipline among the students as per the requirement of the industry.*
- *To impart ethics & social values by arranging social activities.*

SYME

Subject Name: MWD

Sheet No. 3

Questions.

1. Draw Conventional representations of

A.Bevel gear

B.Semi-elliptic leaf spring with eyelets

C.Spring with square and flat ends

D.Rack and pinion gear

E.Compression spring with square section

F.Spiral spring

G.External Screw Threads

H.Spur gear

I. Worm Gear

J.Helical compressing spring with flat ends

K.Internal Screw threads

L.Semi-elliptic leaf spring

M.Cylindrical helical Compression spring of wire of circular cross section

2. Draw Conventional representations of

- A. Diamond Knurling
- B. Gate valve
- C. Ball bearing
- D. Splined shaft
- E. Roller bearing
- F. Reducing socket
- G. Globe valve
- H. Cross pipe joint
- I. Rack and pinion
- J. check valve
- K. saddle key

3. Draw Conventional representations of

- A. Conventional break for pipe.
- B. Short break for pipe.
- C. Long break for pipe.
- d. I section or rolled section
- E. Glass and Rubber
- F. Cast iron
- G. petrol
- Rectangular section (wood)
- I. Steel
- j. Cement concrete.



VISION

"To incorporate technical & professional skills in Mechanical Engineers to fulfil industrial & social needs".

MISSION

- *To educate, guide, and mentor the students for academic excellence.*
- *To develop technical skills and discipline among the students as per the requirement of the industry.*
- *To impart ethics & social values by arranging social activities.*

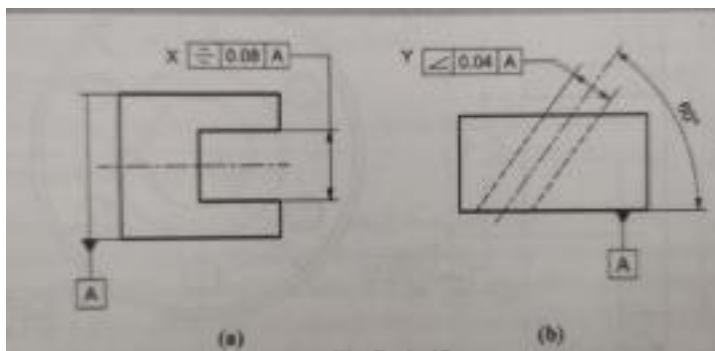
SYME

Subject Name: MWD(22341)

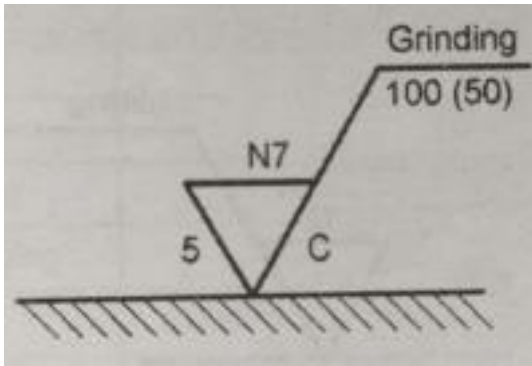
Sheet No. 4

Questions.

1. Draw symbol representing the characteristics of geometrical tolerance.
2. Draw conventional representation of the all forms of weld.
3. What is the meaning of symbol X and Y



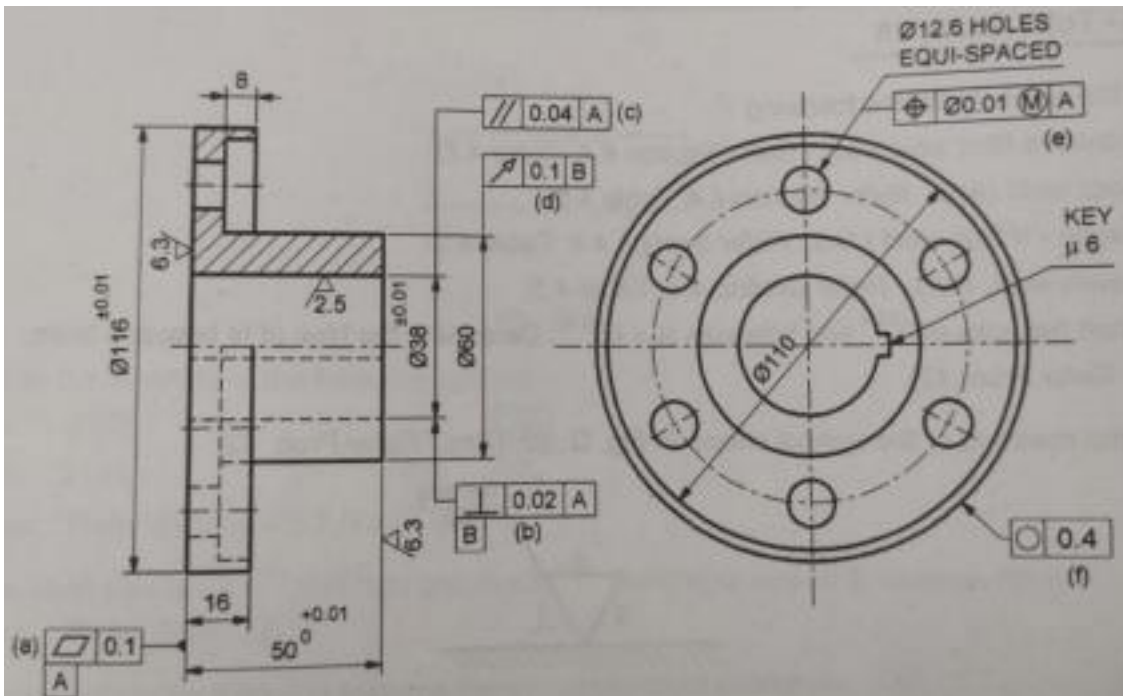
4. State the meaning of the symbol



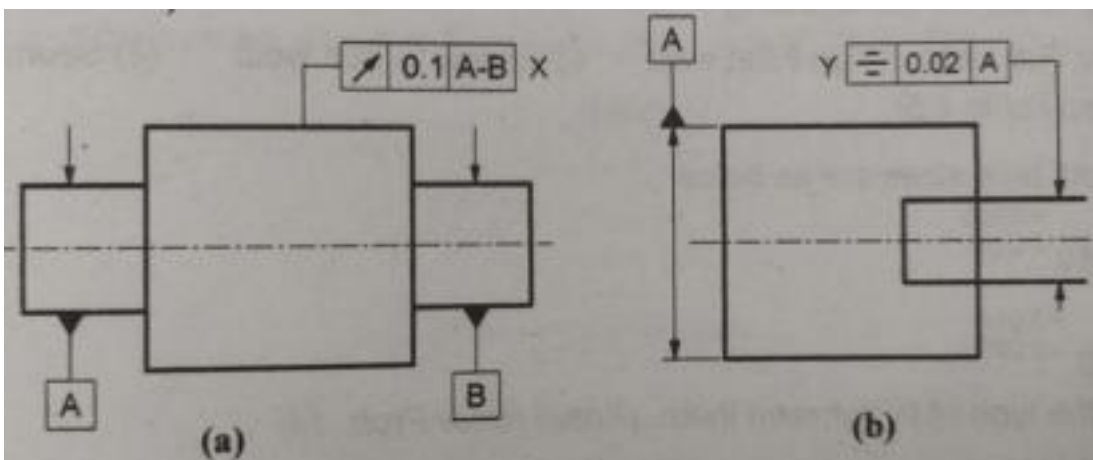
5. From the drawing answer the question

A. what is the meaning of a

B. what is the meaning of d



6. State the meaning of X and Y





VISION

"To incorporate technical & professional skills in Mechanical Engineers to fulfil industrial & social needs".

MISSION

- To educate, guide, and mentor the students for academic excellence.
- To develop technical skills and discipline among the students as per the requirement of the industry.
- To impart ethics & social values by arranging social activities.

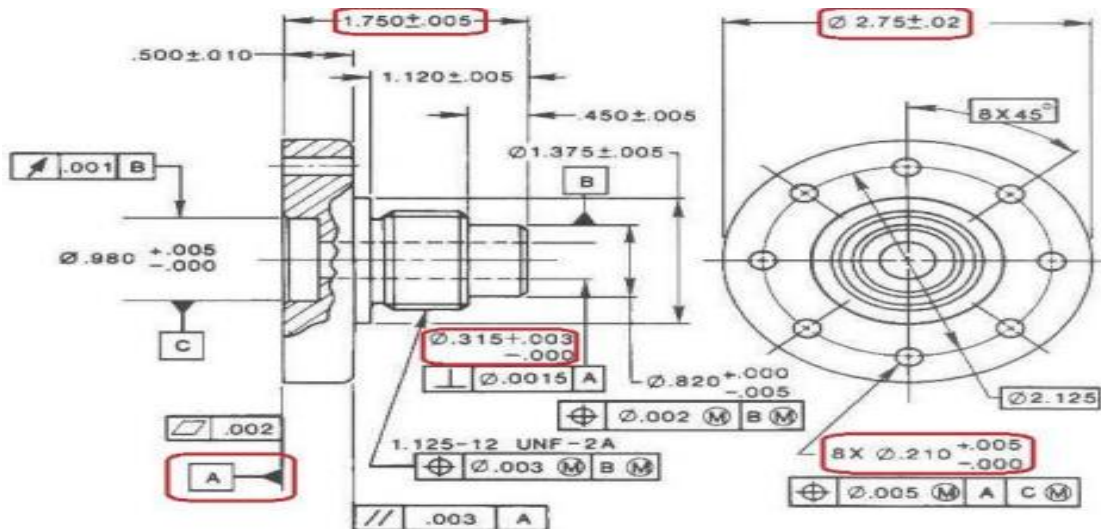
SYME

Subject Name: MWD

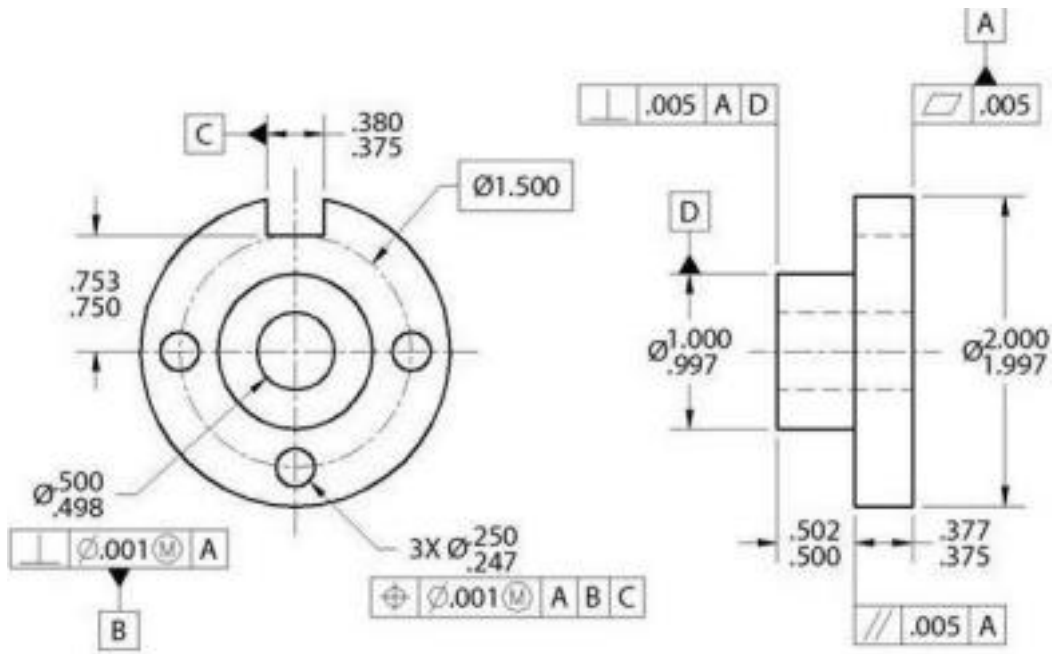
Sheet No. 5

Questions. (Draw diagram as it is)

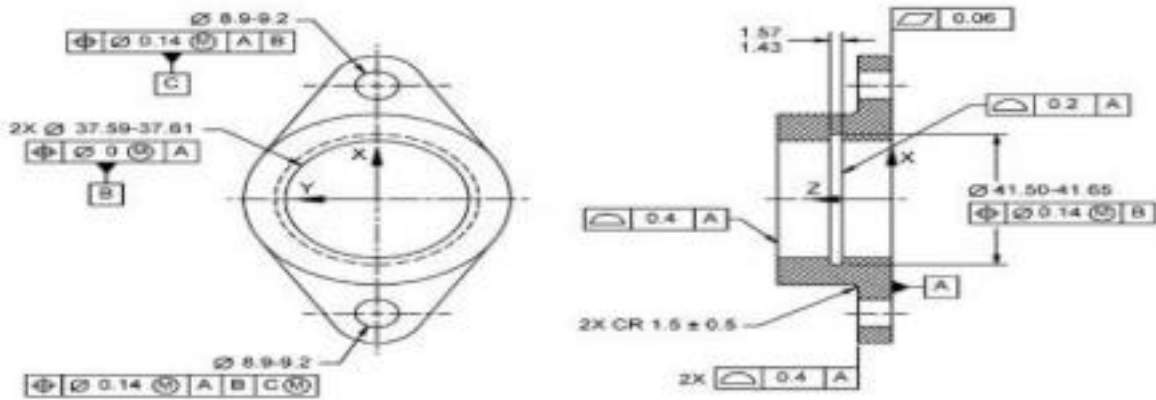
1. Draw the production drawing of at following machining component showing dimensional and geometrical tolerance, surface finish.



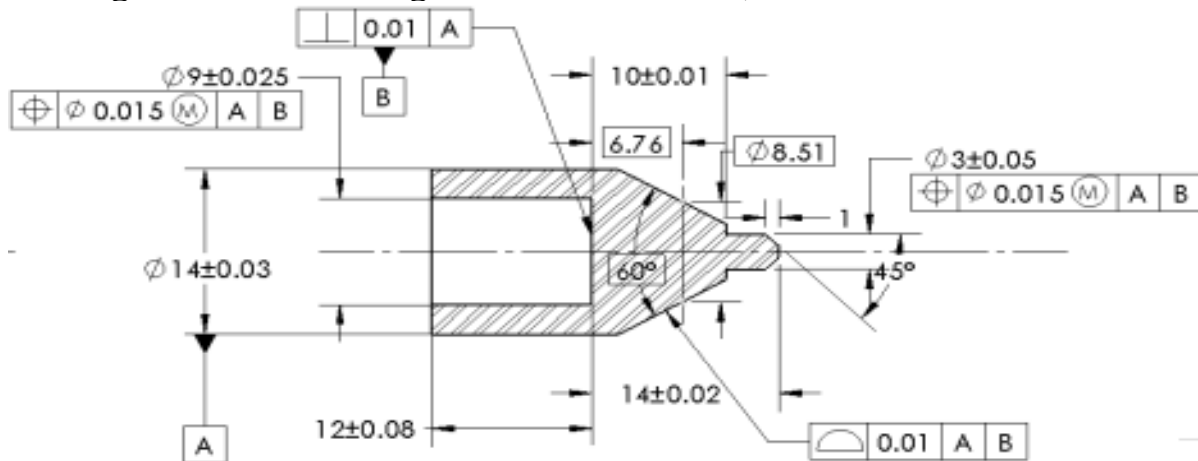
2. Draw the production drawing of at following machining component showing dimensional and geometrical tolerance, surface finish.



3. Draw the production drawing of at following machining component showing dimensional and geometrical tolerance, surface finish.



4. Draw the production drawing of at following machining component showing dimensional and geometrical tolerance, surface finish.





VISION

"To incorporate technical & professional skills in Mechanical Engineers to fulfil industrial & social needs".

MISSION

- *To educate, guide, and mentor the students for academic excellence.*
- *To develop technical skills and discipline among the students as per the requirement of the industry.*
- *To impart ethics & social values by arranging social activities.*

SYME

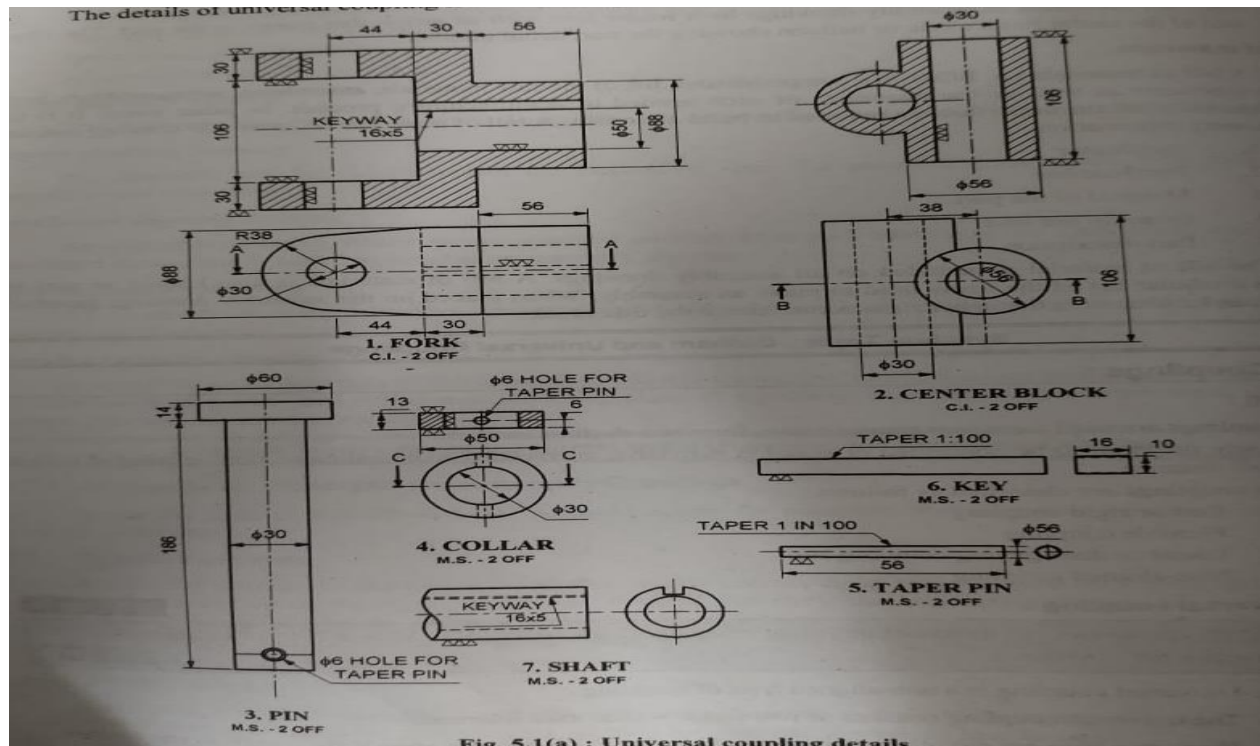
Subject Name: MWD

Sheet No. 6

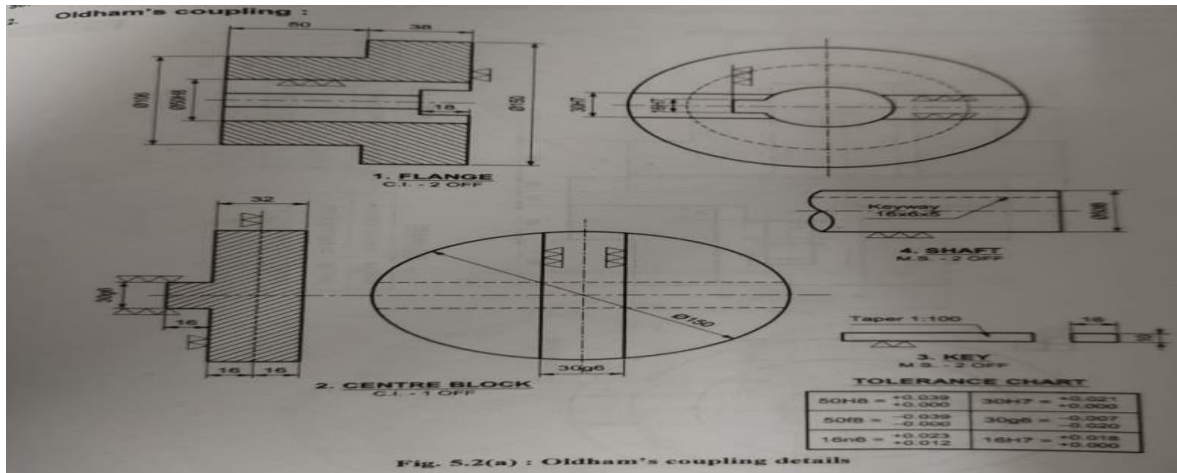
Questions.

Draw Detail to Assembly of following questions

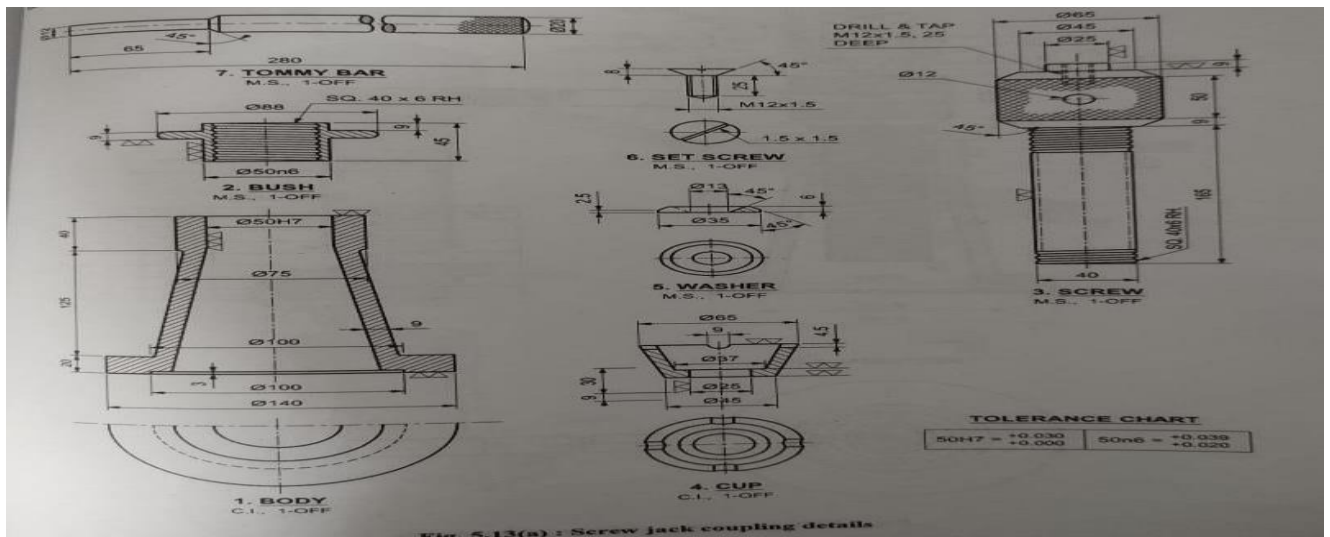
1. Draw assembly of Universal Coupling from given details



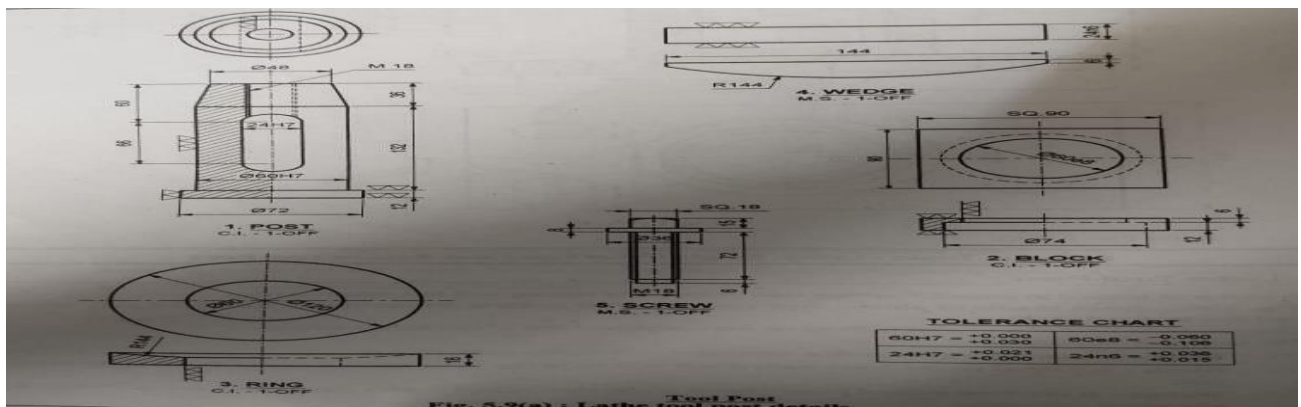
2. Draw assembly of Oldham Coupling from given details



3. Draw assembly of screw jack coupling from given details



4. Draw assembly of Lathe tool post from given details.





VISION

“To incorporate technical & professional skills in Mechanical Engineers to fulfil industrial & social needs”.

MISSION

- *To educate, guide, and mentor the students for academic excellence.*
- *To develop technical skills and discipline among the students as per the requirement of the industry.*
- *To impart ethics & social values by arranging social activities.*

SYME

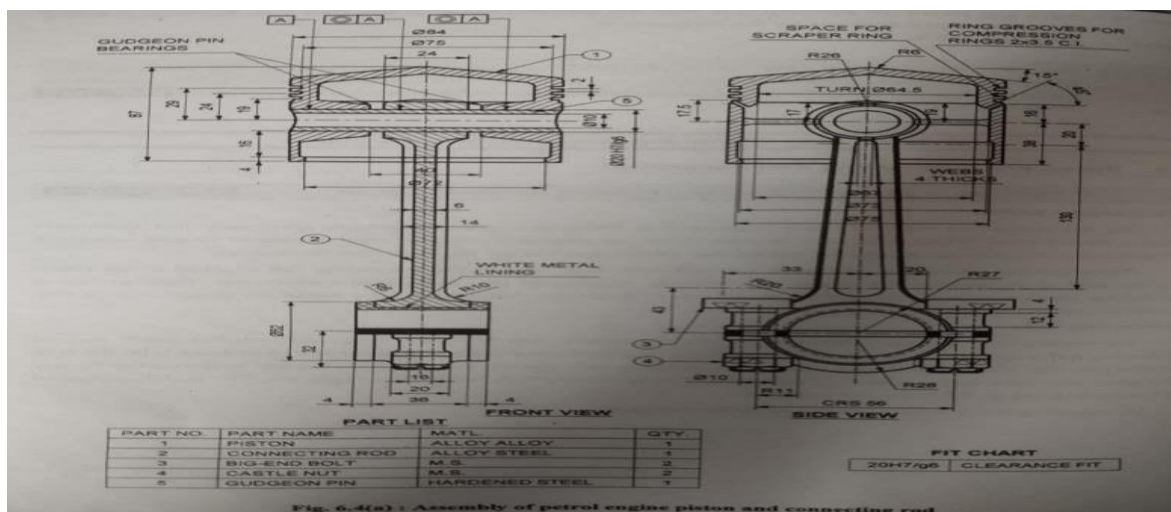
Subject Name: MWD

Sheet No. 7

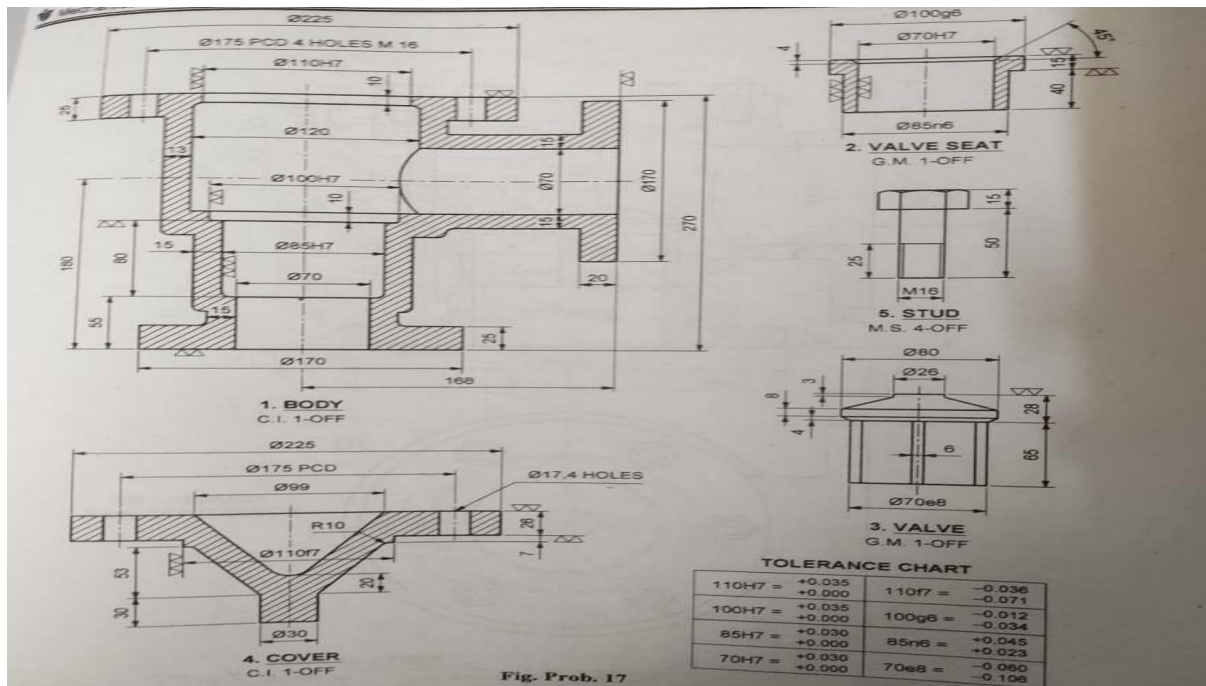
Questions.

Draw Assembly to Detail of following questions

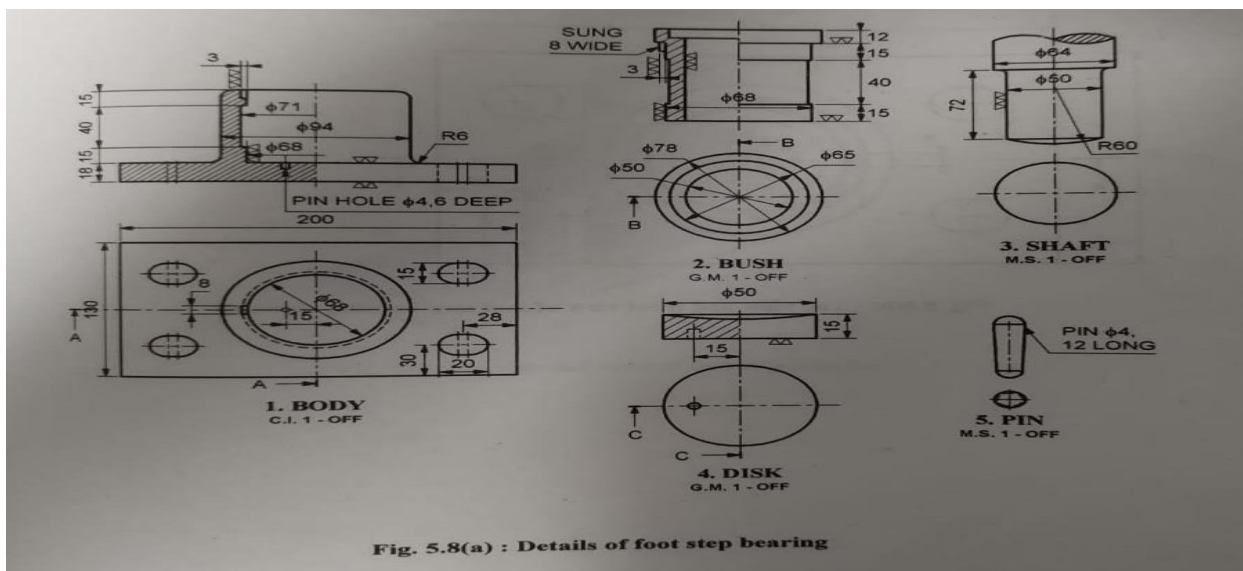
1. Draw detail of connecting rod from given assembly.



2. Draw detail of non-return valve from given assembly.



3. Draw detail of foot step bearing from given assembly.



4. Draw detail of pedestal bearing from given assembly.

