



The Shirpur Education Society's

**R. C. Patel College of Engineering and  
Polytechnic, Shirpur**

**Department of Mechanical Engineering**

**NAME OF COURSE: - Production Drawing**

**CODE OF COURSE: - 313311**

**SEMESTER: - ME-3K (SYME)**

**Unit - 4 Details To Assembly  
16 Marks**

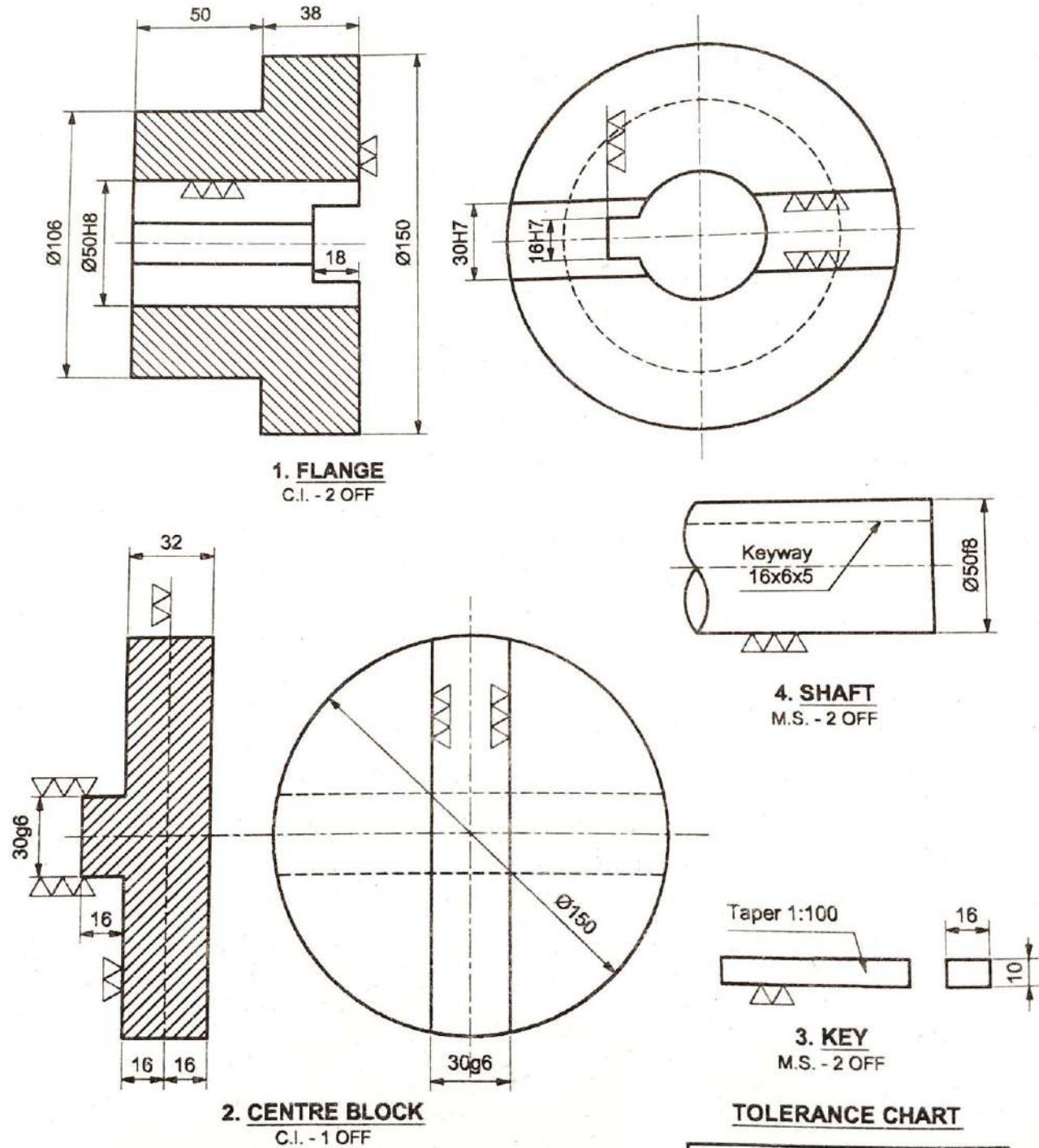
**SUBJECT TEACHER**

Mr. Anil S. Patil

# Production Drawing\_PDR\_(313311)

## Unit 4 \_ Details to Assembly

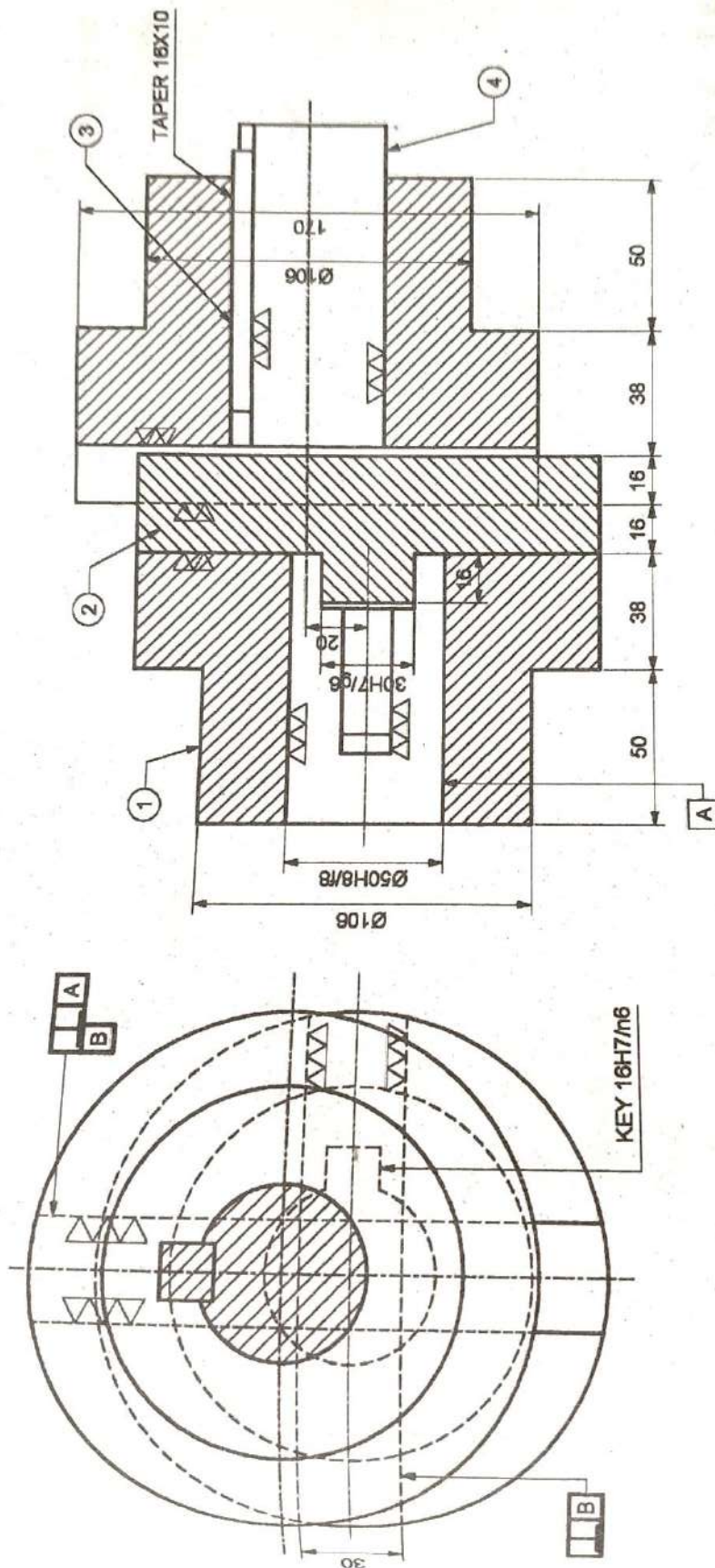
Q1. Oldham coupling



**TOLERANCE CHART**

50H8 = +0.039 +0.000	30H7 = +0.021 +0.000
50f8 = -0.039 -0.000	30g6 = -0.007 -0.020
16n6 = +0.023 +0.012	16H7 = +0.018 +0.000

Solution-



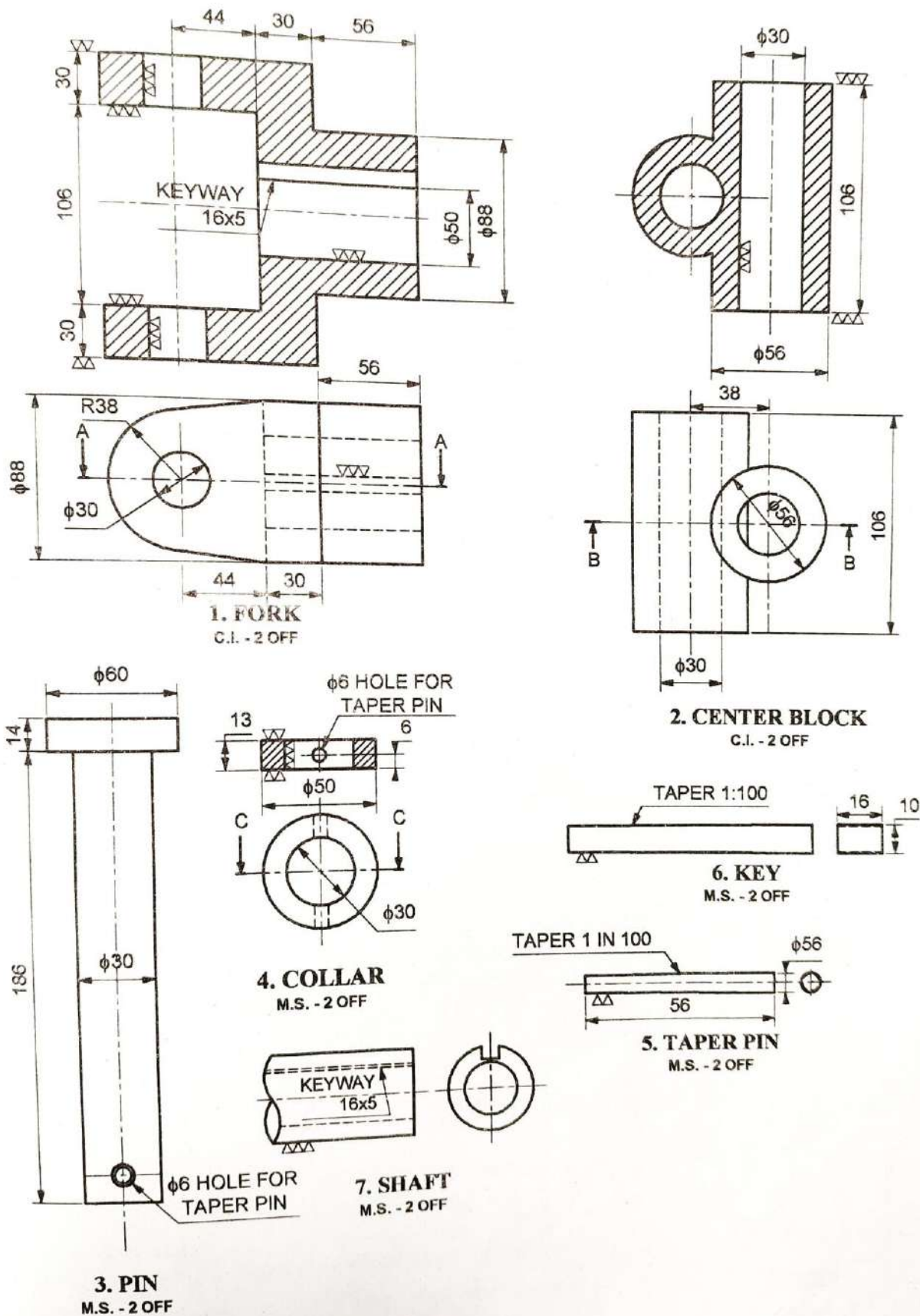
PART LIST

PART NO.	PART NAME	METL	QTY.
1	FLANGE	C.I.	2
2	CENTER BLOCK	C.I.	1
3	KEYS	M.S.	2
4	SHAFT	M.S.	2

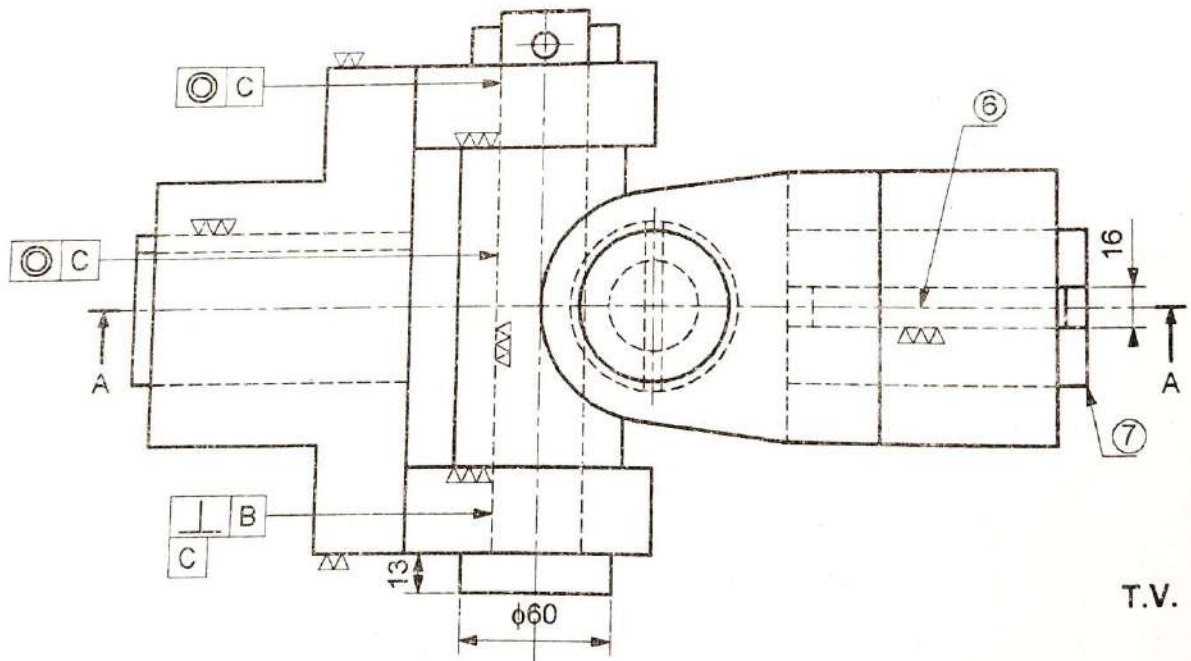
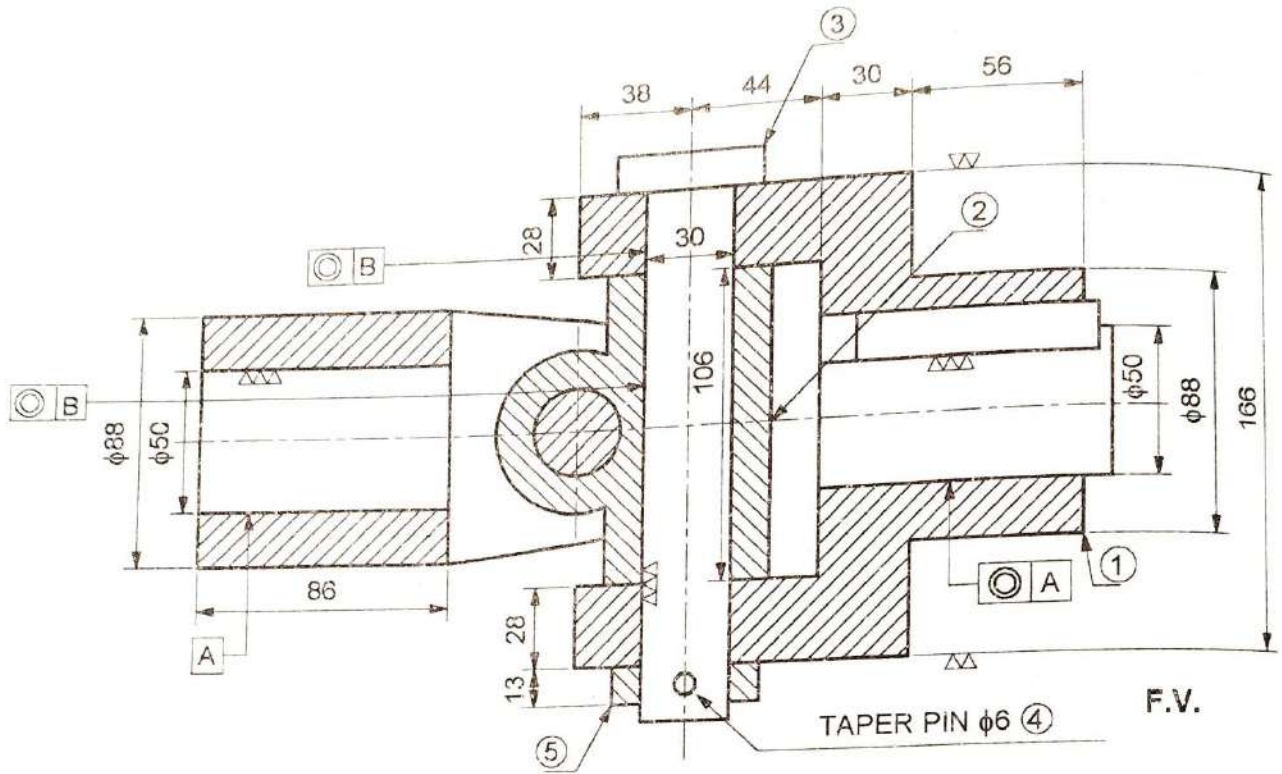
FIT CHART

16H7/m6	TRANSITION FIT
30H7/g6	CLEARANCE FIT
50H8/f8	CLEARANCE FIT

Q2. Universal coupling



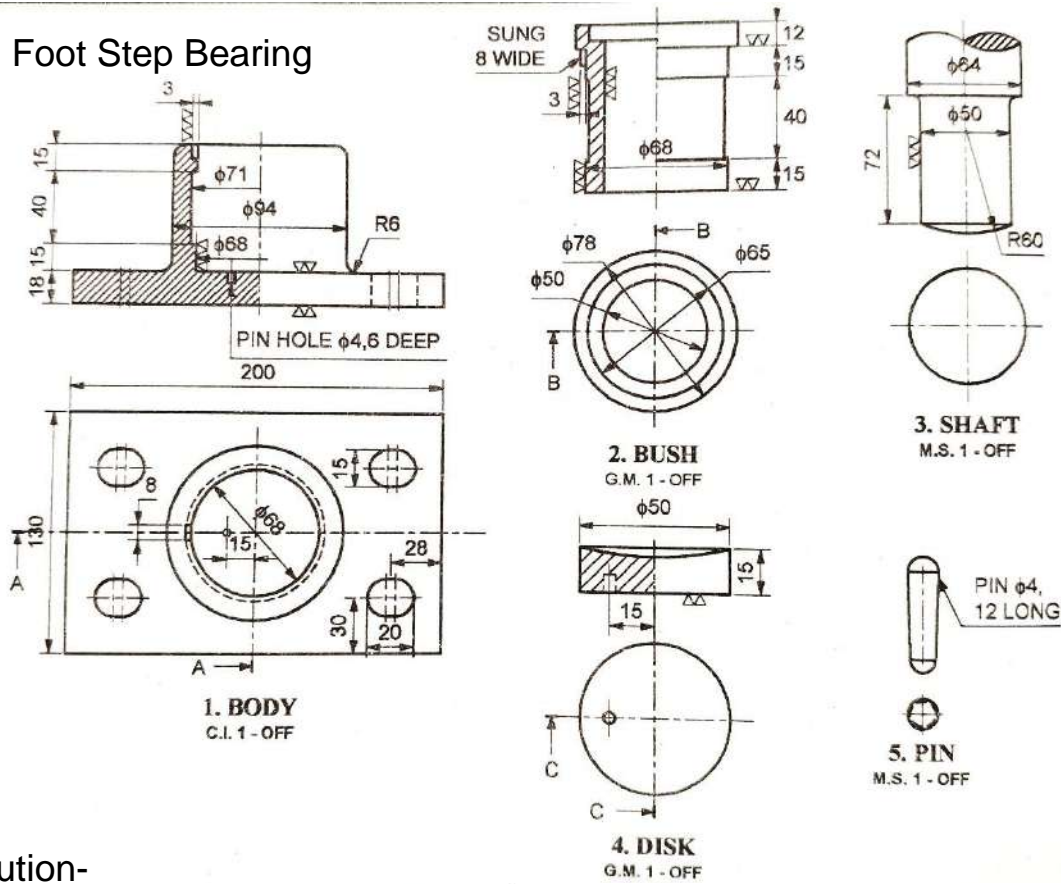
Solution-



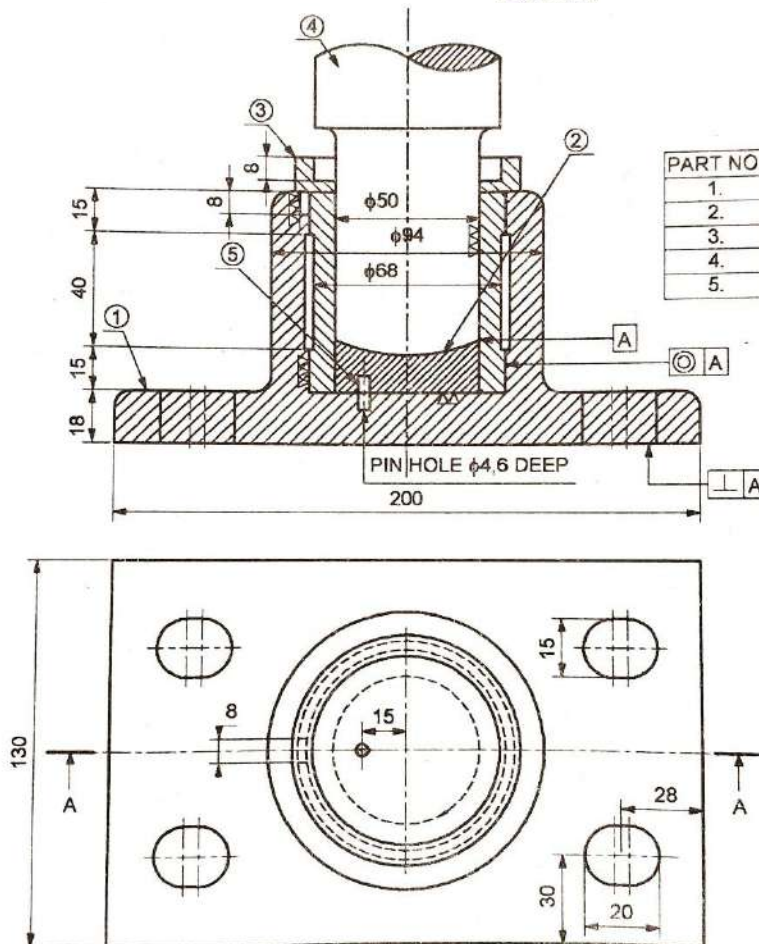
PART LIST

PART NO.	PART NAME	METAL	QTY.
1.	FORK	C.I.	2
2.	CENTER BLOCK	C.I.	1
3.	PIN	M.S.	2
4.	TAPER PIN	M.S.	2
5.	COLLAR	M.S.	2
6.	KEY	M.S.	2
7.	SHAFT	M.S.	2

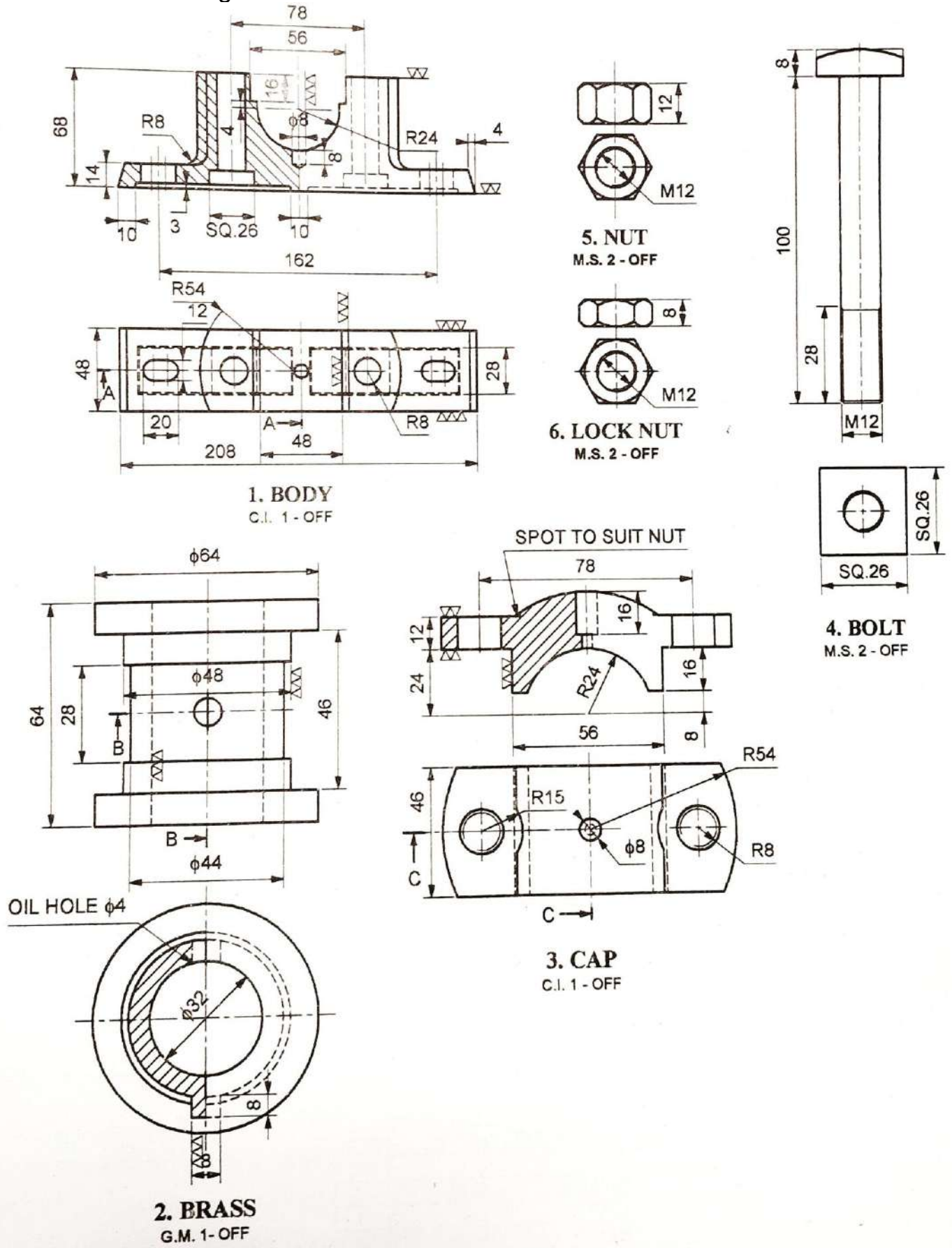
Q3. Foot Step Bearing



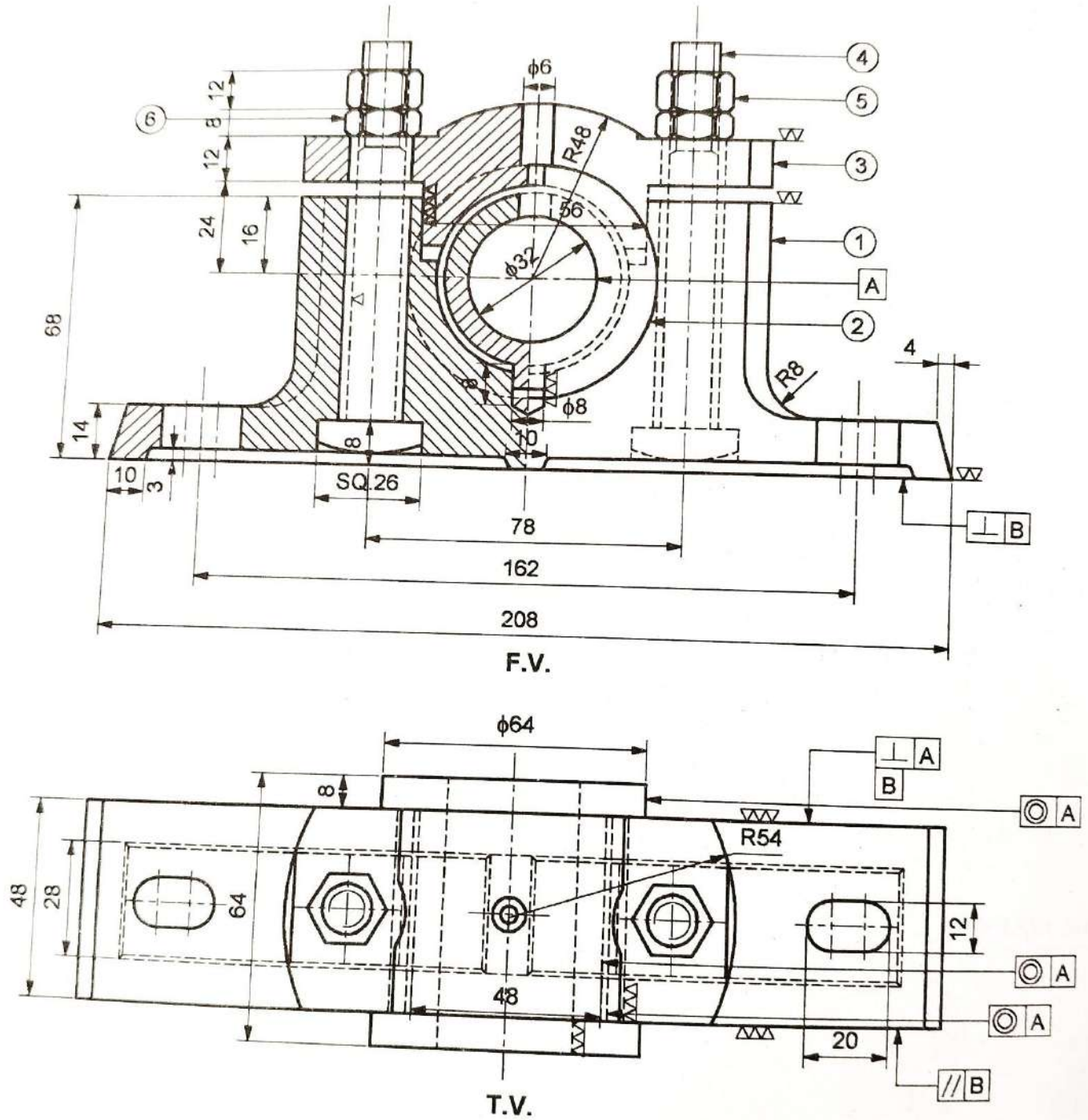
Solution-



Q4 Pedestal Bearing



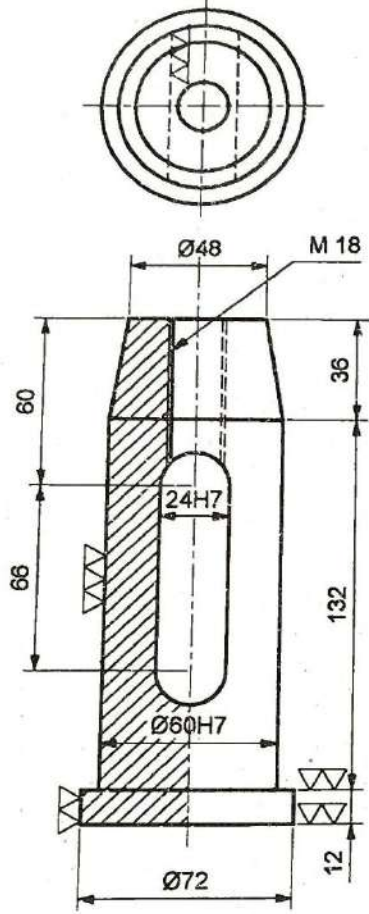
Solution-



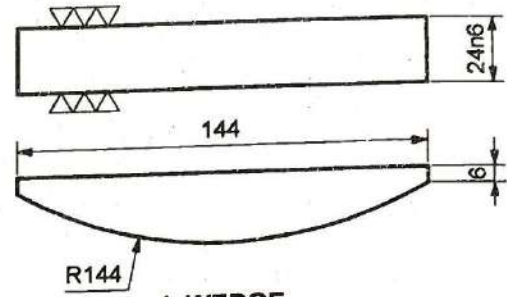
PART LIST

PART NO.	PART NAME	METAL	QTY.
1.	BODY	C.I.	1
2.	BRASS	G.M.	1
3.	CAP	C.I.	1
4.	BOLT	M.S.	2
5.	NUT	M.S.	2
6.	LOCK NUT	M.S.	2

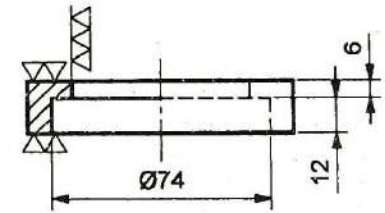
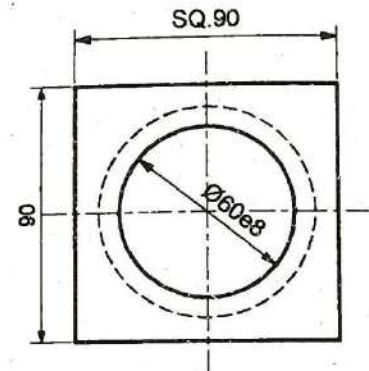
Q5 Pillar Type Tool Post



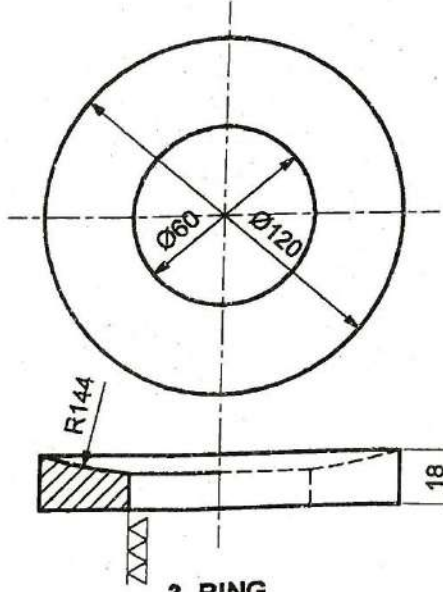
**1. POST**  
C.I. - 1-OFF



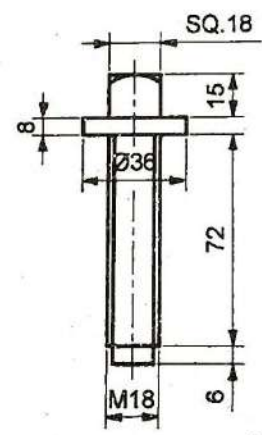
**4. WEDGE**  
M.S. - 1-OFF



**2. BLOCK**  
C.I. - 1-OFF



**3. RING**  
C.I. - 1-OFF



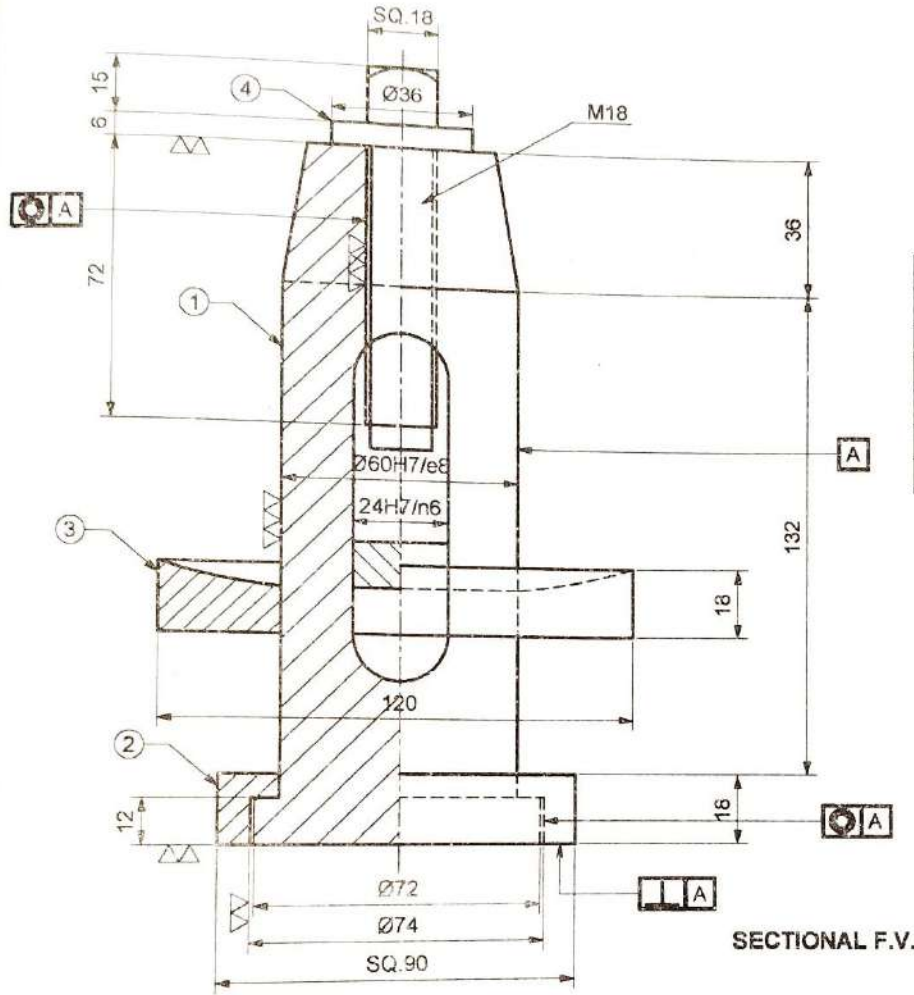
**5. SCREW**  
M.S. - 1-OFF

**TOLERANCE CHART**

60H7 = +0.000 +0.030	60e8 = -0.060 -0.106
24H7 = +0.021 +0.000	24n6 = +0.036 +0.015

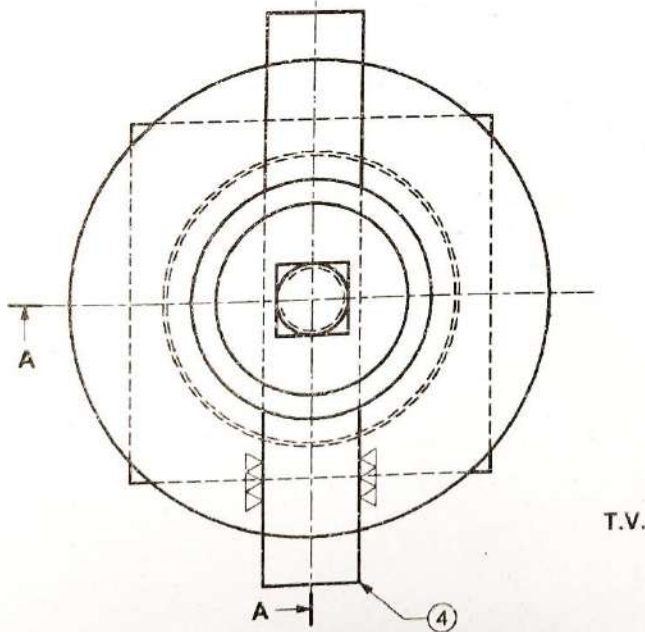
**Tool Post**

Solution-

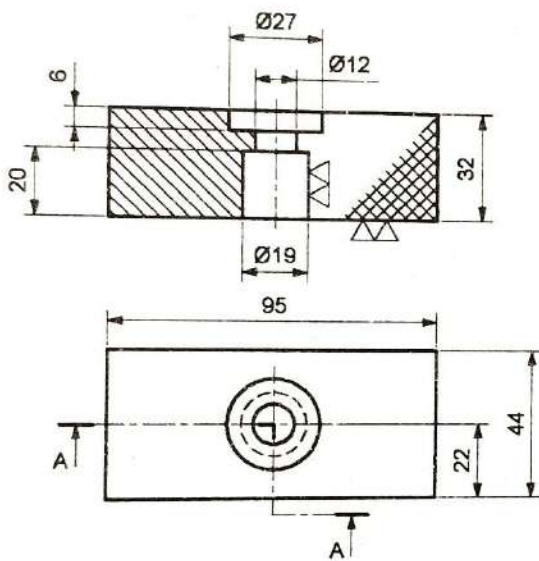
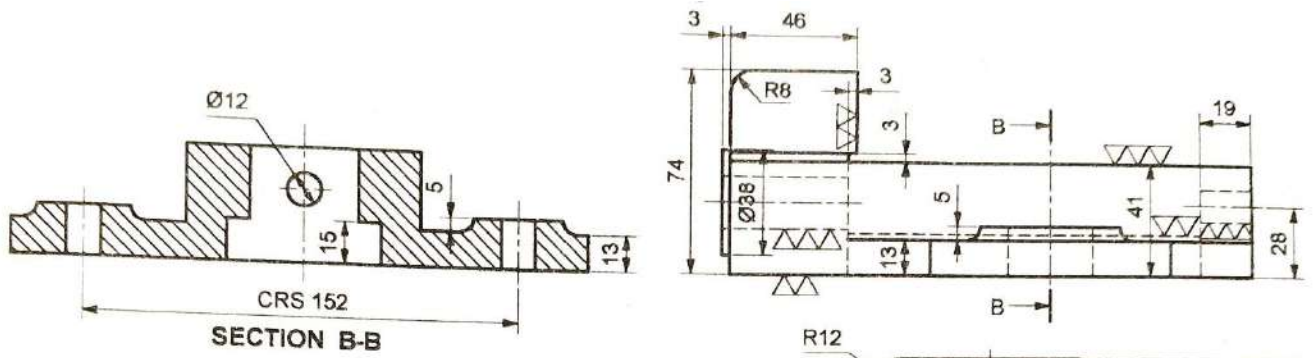


PART LIST

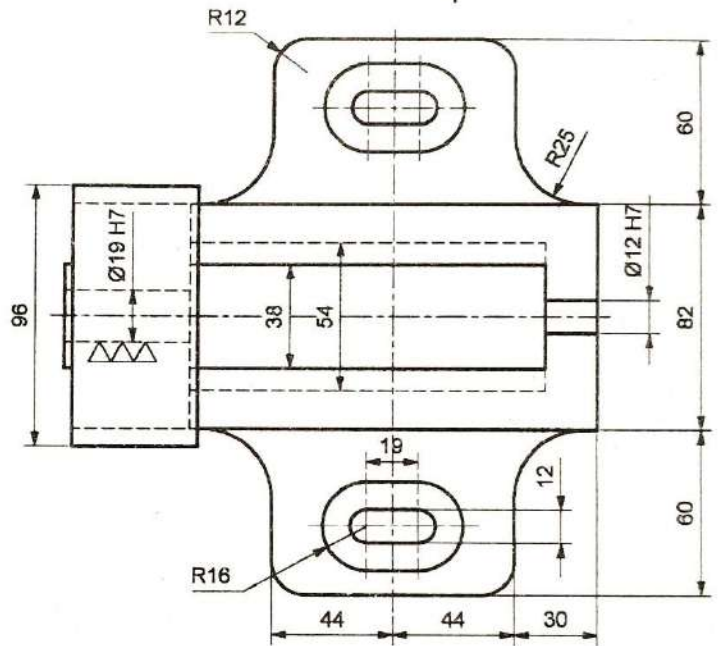
PART NO.	PART NAME	MATL	QTY.
1	POST	C.I.	1
2	BLOCK	C.I.	1
3	RING	C.I.	1
4	SCREW	M.S.	1
5	WEDGE	M.S.	1
6	TOOL	H.S.S.	1



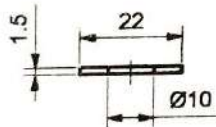
Q6 Bench vice



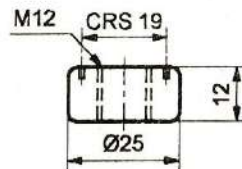
**2. SLIDING JAW**  
M.S. - 1 OFF



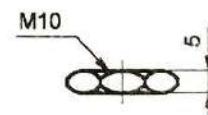
**1. BODY**  
C.I. - 1 OFF



**8. WASHER**  
M.S. - 1 OFF



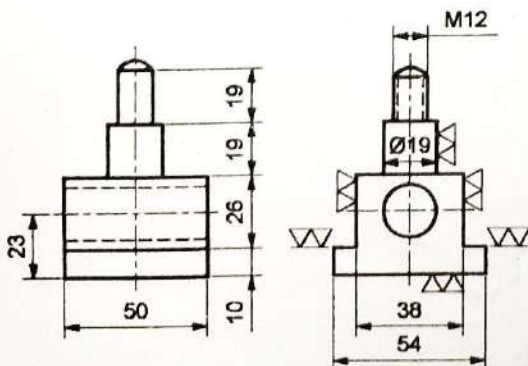
**5. CIRCULAR NUT**  
M.S. - 1 OFF



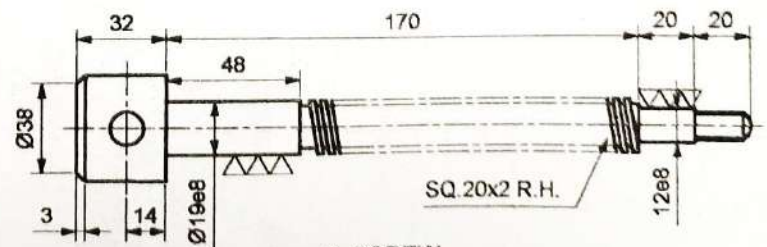
**7. LOCK NUT**  
M.S. - 1 OFF



**6. HEX NUT**  
M.S. - 1 OFF



**4. CLAMPING BOLT**  
M.S. - 1 OFF



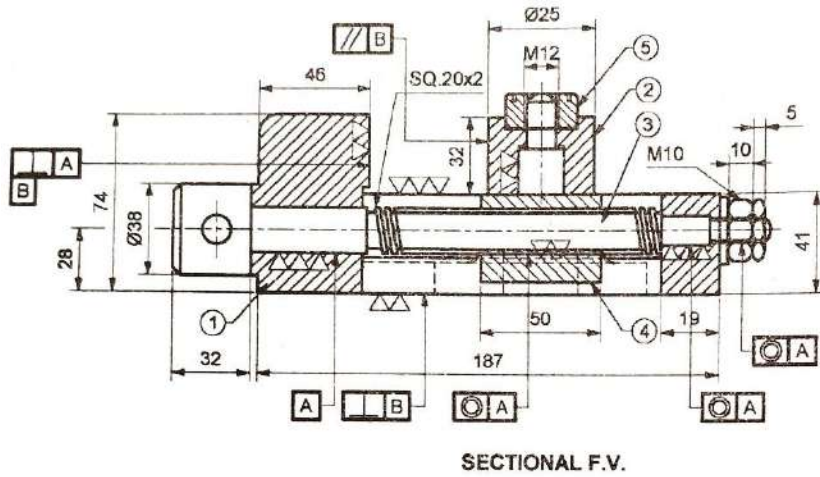
**3. SCREW**  
M.S. - 1 OFF

**TOLERANCE CHART**

19H7 =	+0.021	12H7 =	+0.018
	+0.000		+0.000
19e6 =	-0.040	12e6 =	-0.032
	-0.073		-0.059

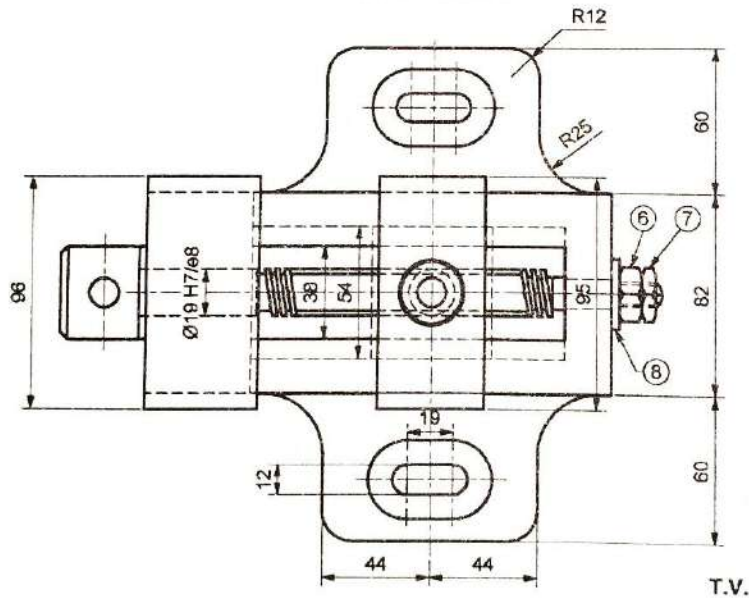
**DETAILS OF MACHINE VICE**

Solution-



**PART LIST**

PART NO.	PART NAME	MATL.	QTY.
1	BODY	C.I.	1
2	SLIDING JAW	M.S.	1
3	SCREW	M.S.	1
4	SLIDING JAW CLAMPING BOLT	M.S.	1
5	CIRCULAR NUT	M.S.	1
6	NUT	M.S.	1
7	LOCK NUT	M.S.	1
8	WASHER	M.S.	1

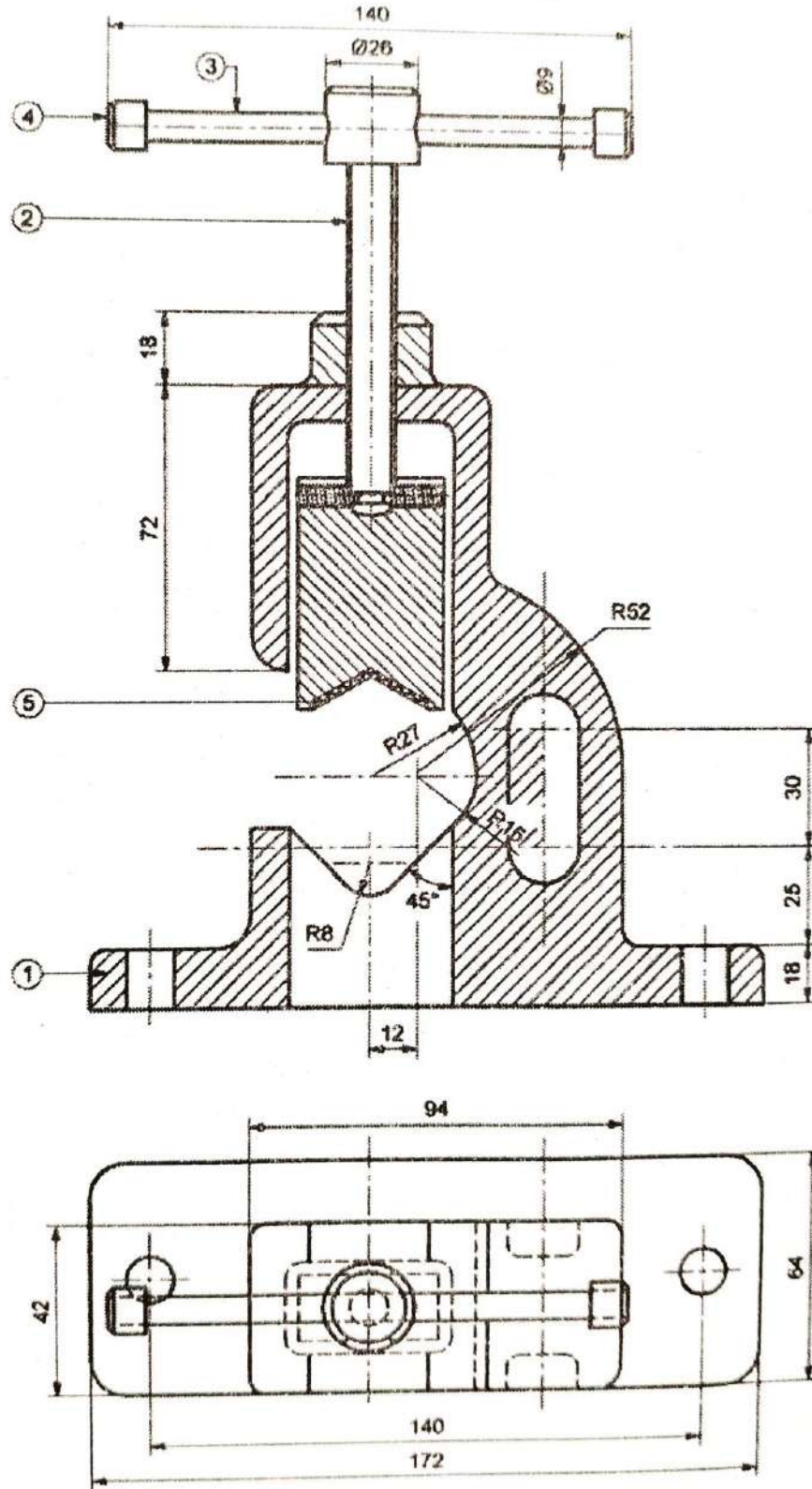


**FIT CHART**

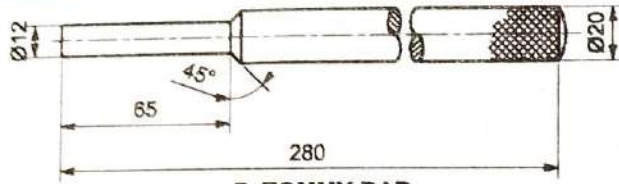
19H7/e8	CLEARANCE FIT
12H7/e8	CLEARANCE FIT



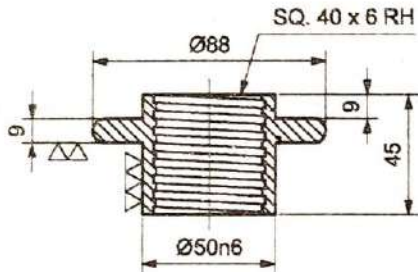
Solution-



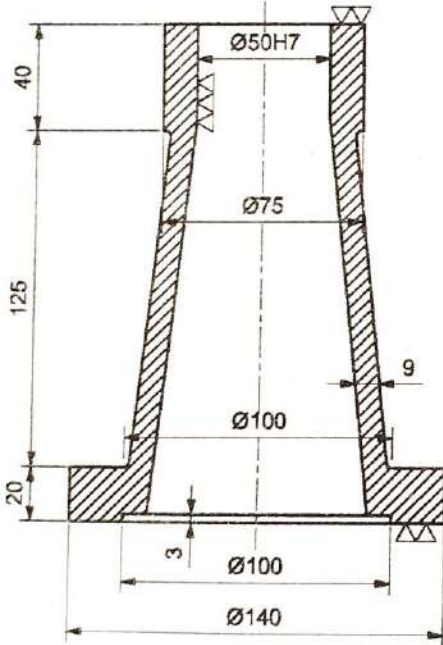
Q8 Screw-jack



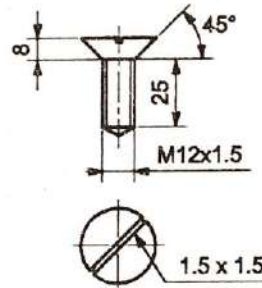
**7. TOMMY BAR**  
M.S., 1-OFF



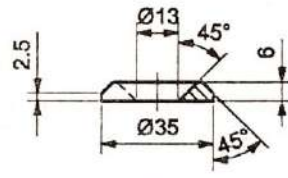
**2. BUSH**  
M.S., 1-OFF



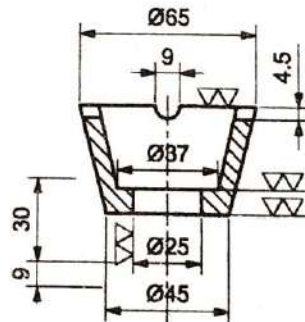
**1. BODY**  
C.I., 1-OFF



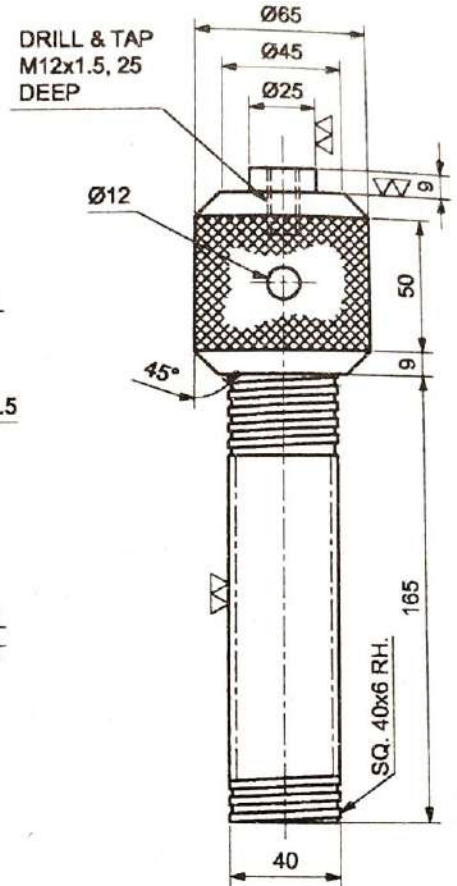
**6. SET SCREW**  
M.S., 1-OFF



**5. WASHER**  
M.S., 1-OFF



**4. CUP**  
C.I., 1-OFF

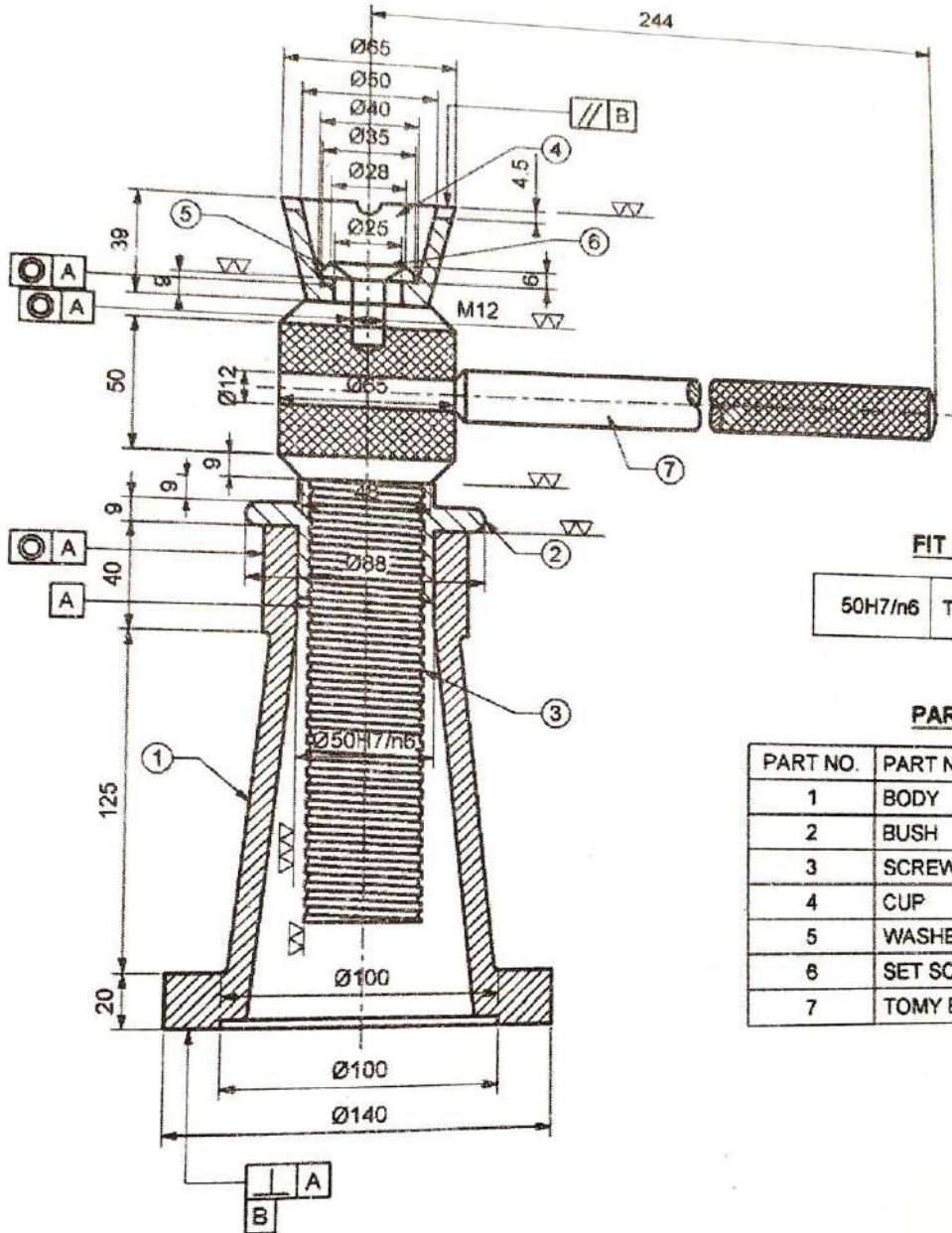


**3. SCREW**  
M.S., 1-OFF

**TOLERANCE CHART**

50H7 = +0.030 +0.000	50n6 = +0.039 +0.020
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Solution-



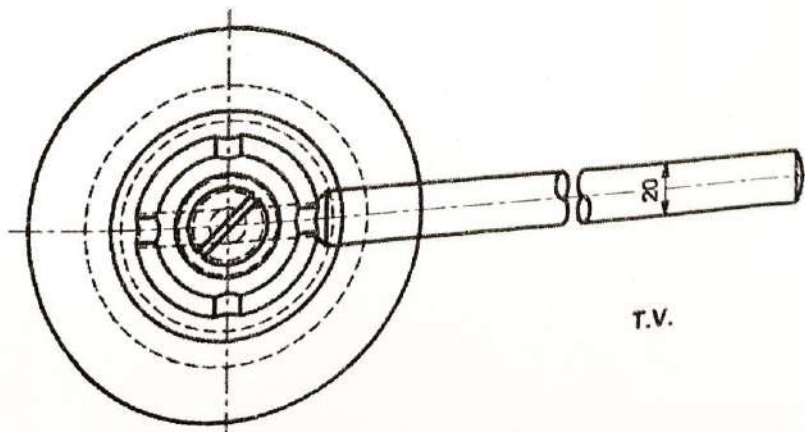
**FIT CHART**

50H7/m6	TANSINTION FIT
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**PART LIST**

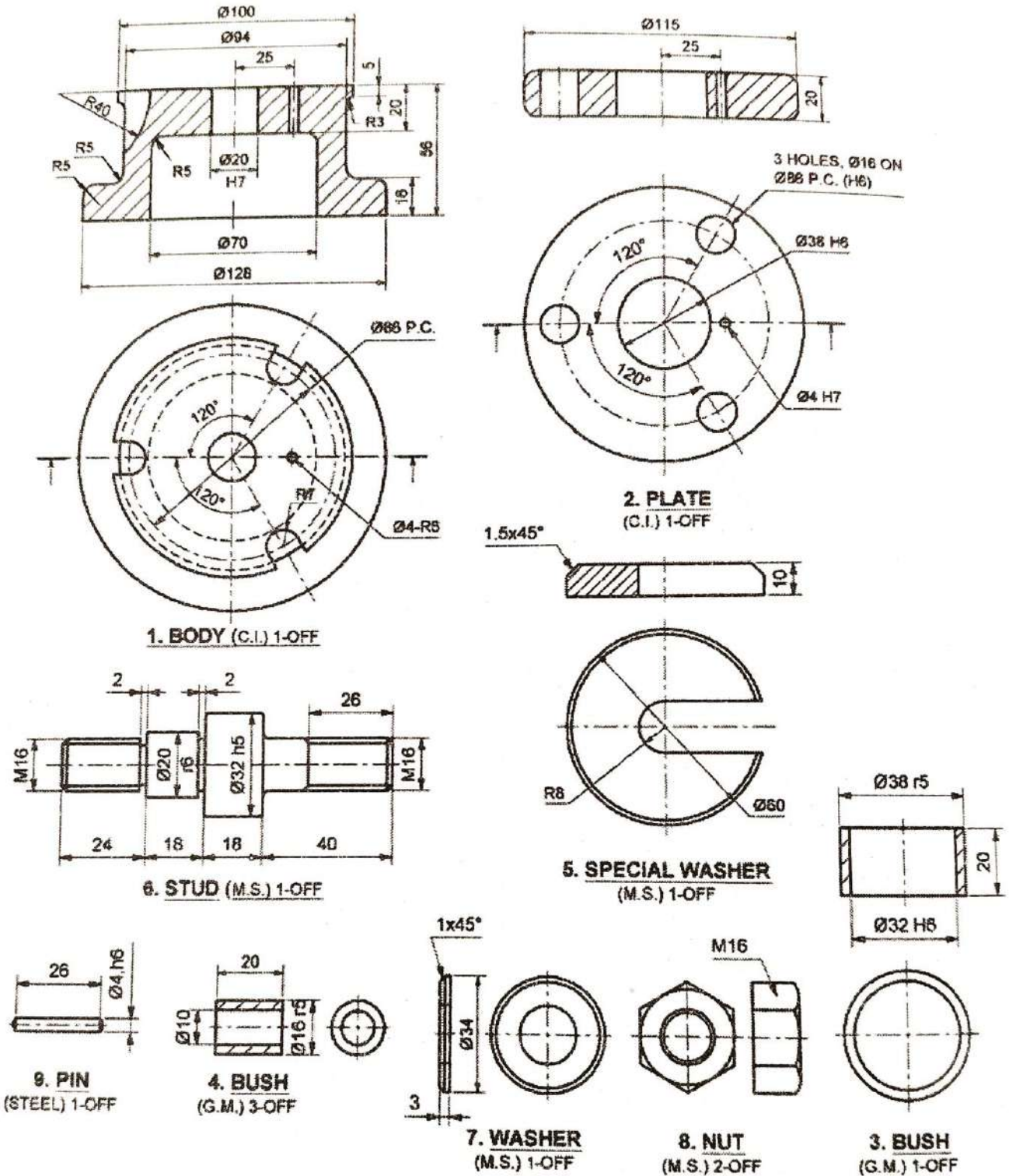
PART NO.	PART NAME	MATL.	QTY.
1	BODY	C.I.	1
2	BUSH	M.S.	1
3	SCREW	M.S.	1
4	CUP	C.I.	1
5	WASHER	M.S.	1
6	SET SCREW	M.S.	1
7	TOMY BAR	M.S.	1

SECTIONAL F.V.

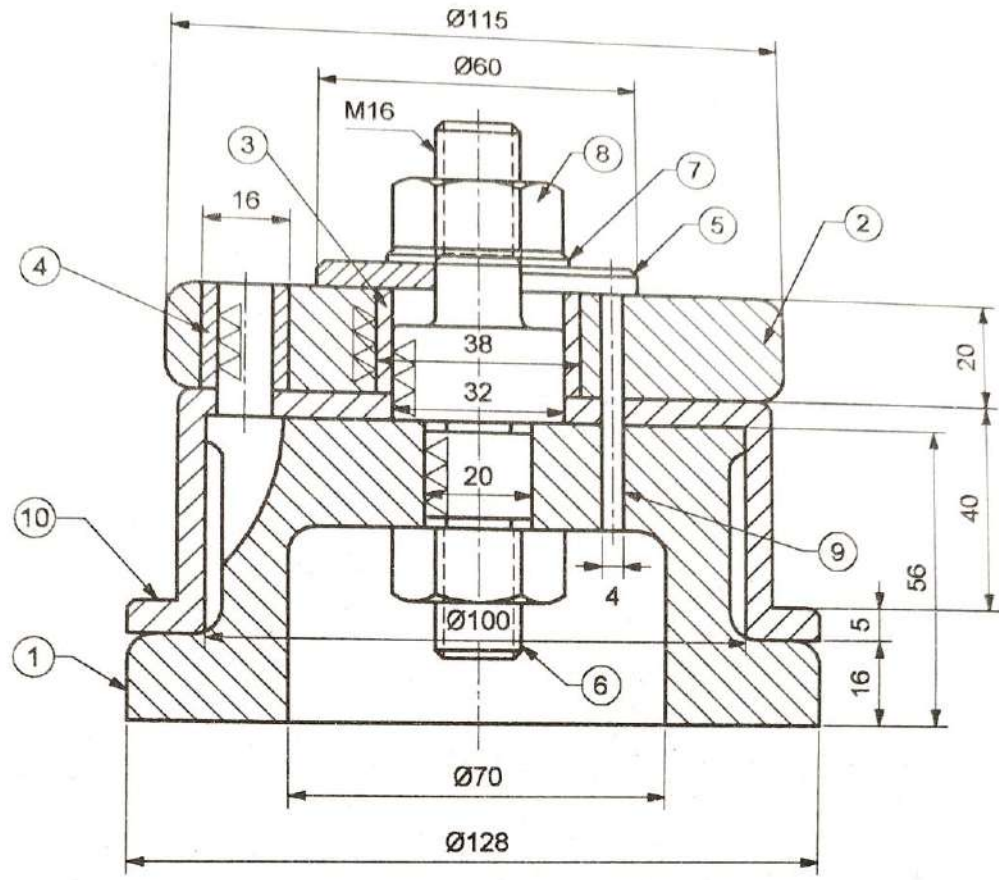


T.V.

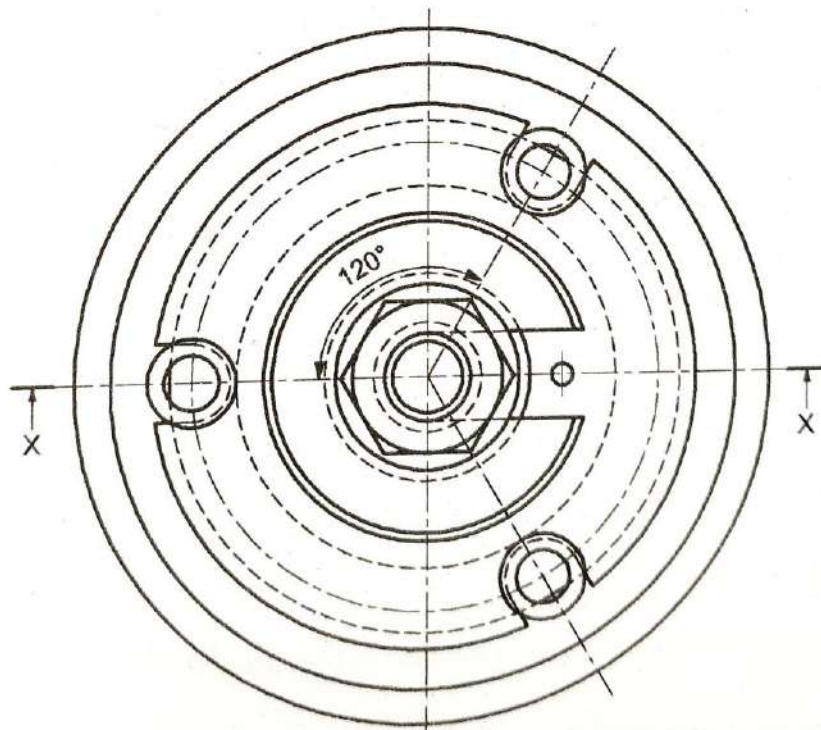
Q9 Drill Jig



Solution-



F.V.



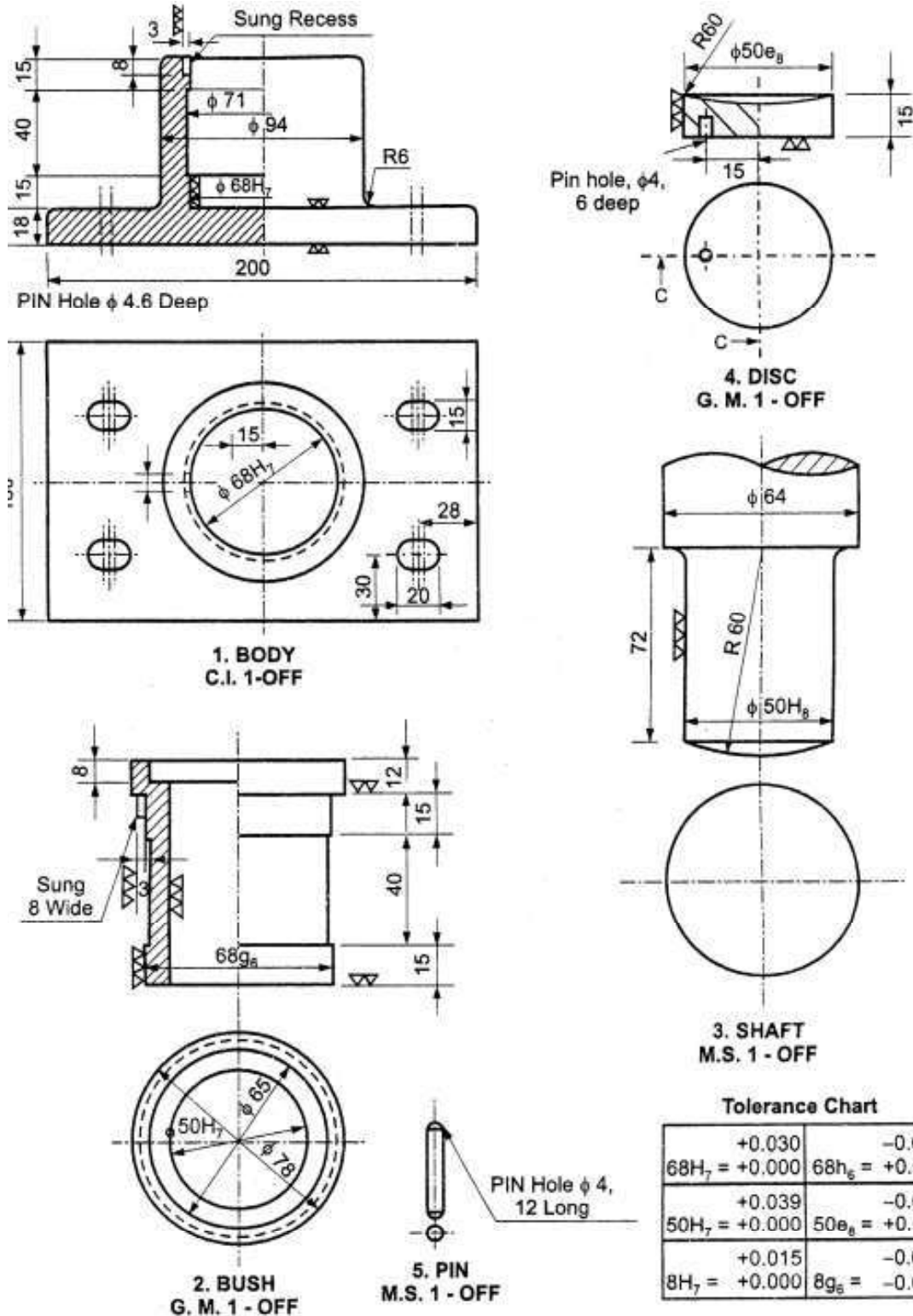
T.V.

# QUESTION BANK

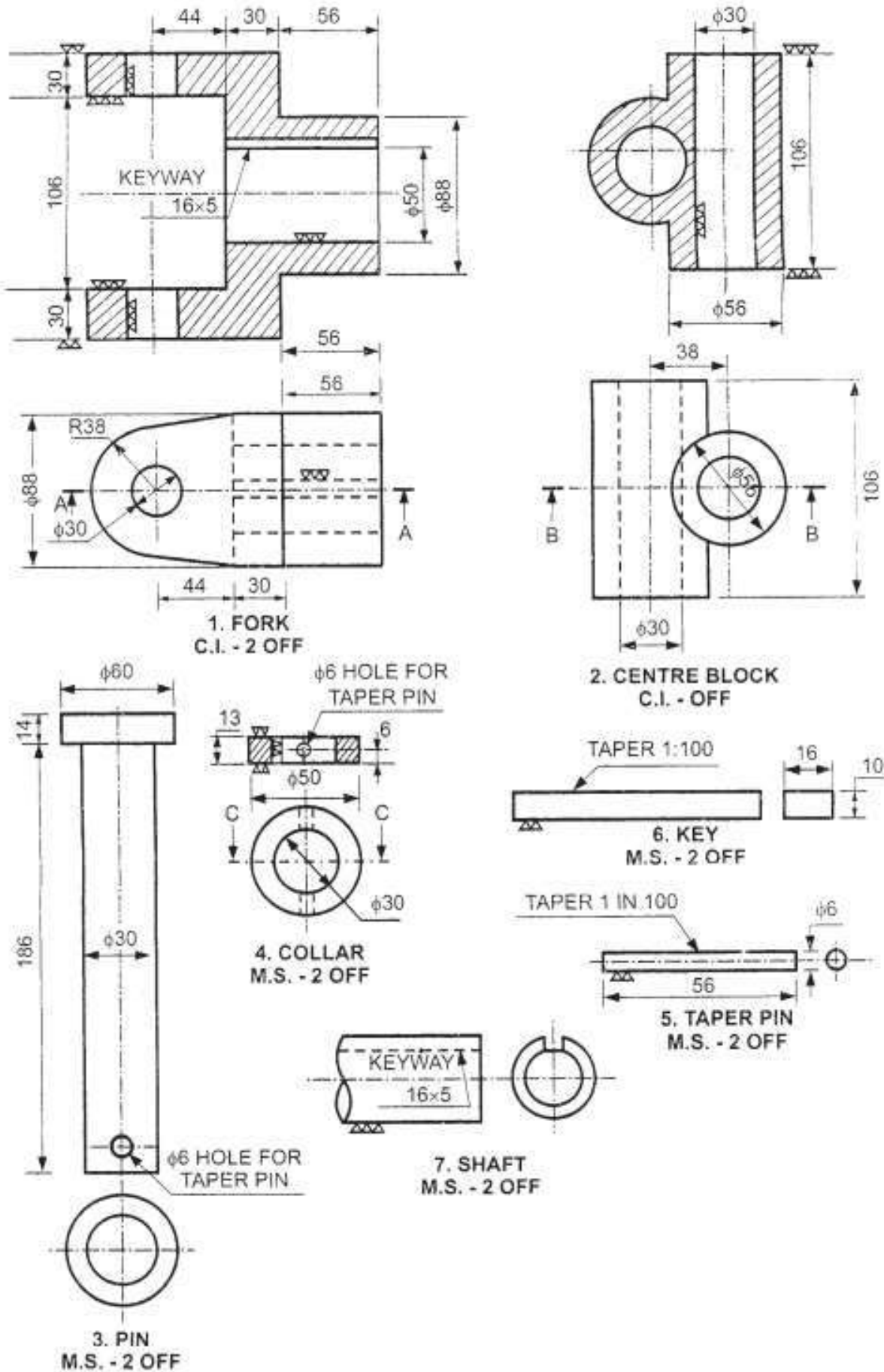
<b>Program Name:</b> Mechanical Engineering Program Group	<b>Program Code:</b> ME
<b>Course Title :</b> Production Drawing (313311)	<b>Semester:</b> Third

## Unit 4: Details to assembly

1. Figure No. 6 shows details of foot step bearing. Draw S.F.V. and T.V. of an assembly of foot step bearing and part list. (16M) **W-25,S-25**

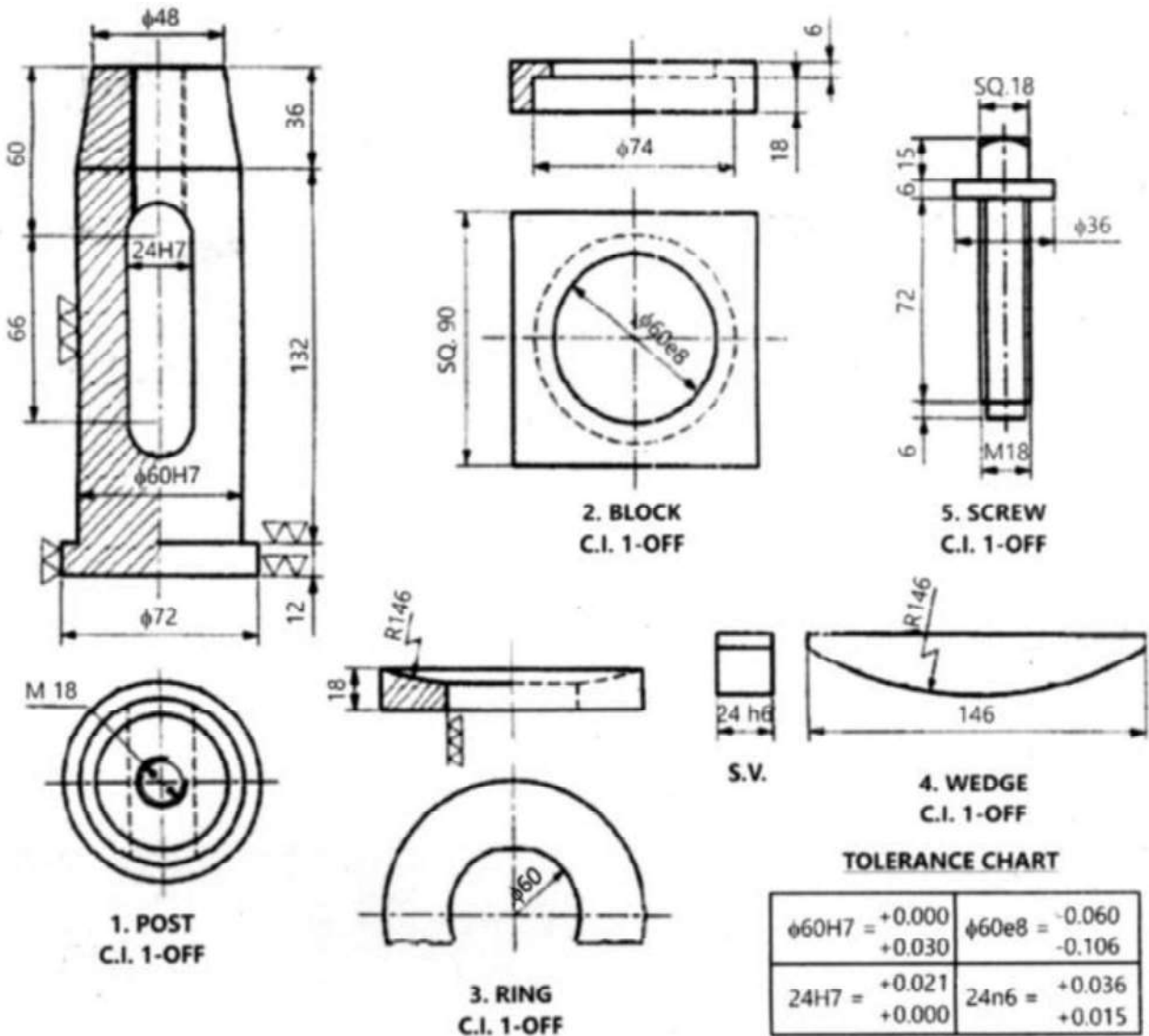


2. Figure No. 7 shows details of Universal coupling. Draw S.F.V. and T.V. of assembly and part list. (16M) **W-25**



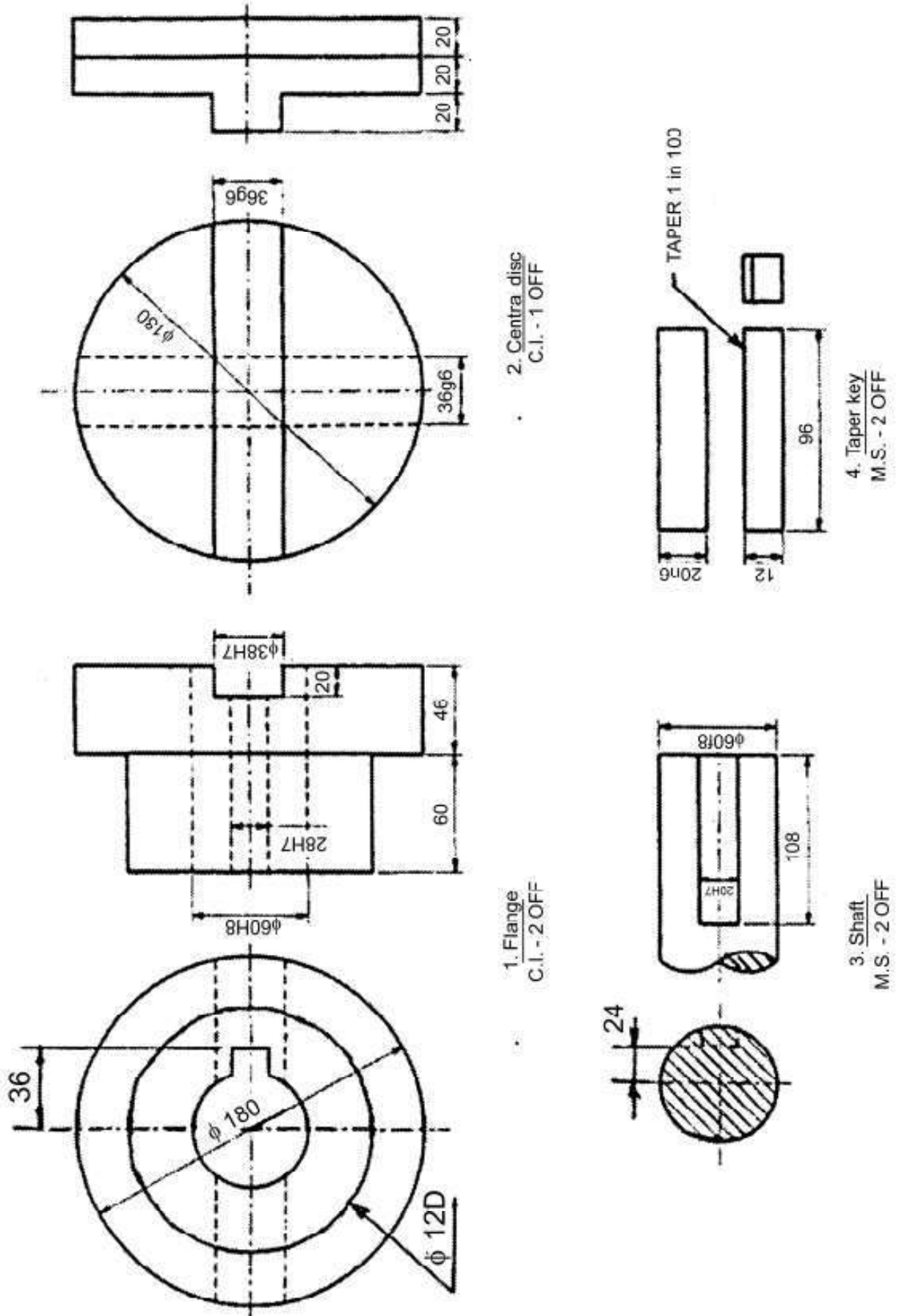
3. Figure No. 7 shows the details of 'LATHE TOOL POST'. Draw the following views of the assembly:  
 i) Sectional front view ii) Top view iii) Prepare bill of material. Indicate types of fit. (16M)

**W-24,S-25**

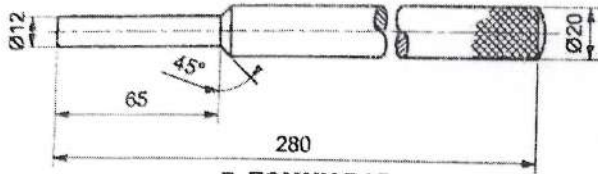


4. Fig. No. 6 shows the details of Oldham's coupling. Draw the following views of the assembly : (i) Sectional Front View (ii) Left hand Side View (16M)

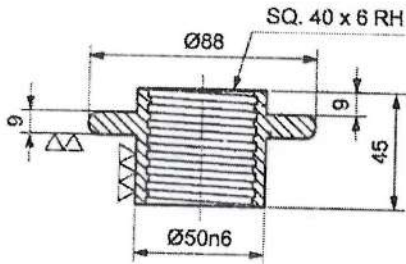
**W-24**



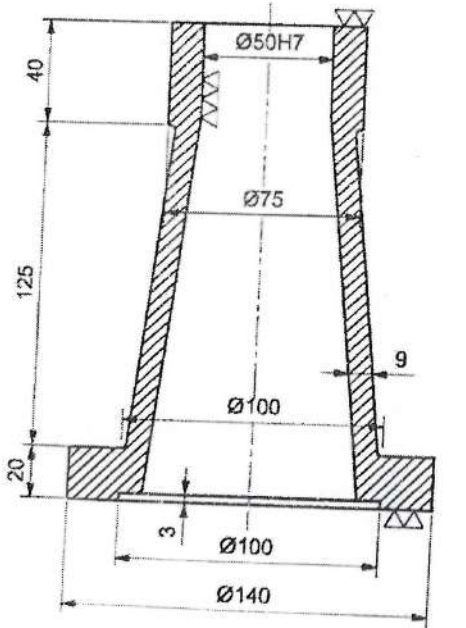
Q5 Screw-jack



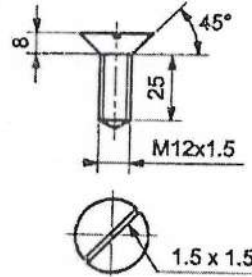
**7. TOMMY BAR**  
M.S., 1-OFF



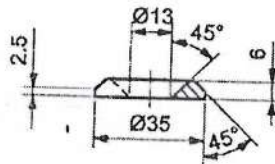
**2. BUSH**  
M.S., 1-OFF



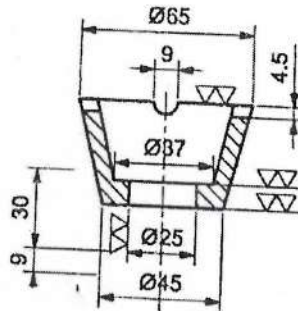
**1. BODY**  
C.I., 1-OFF



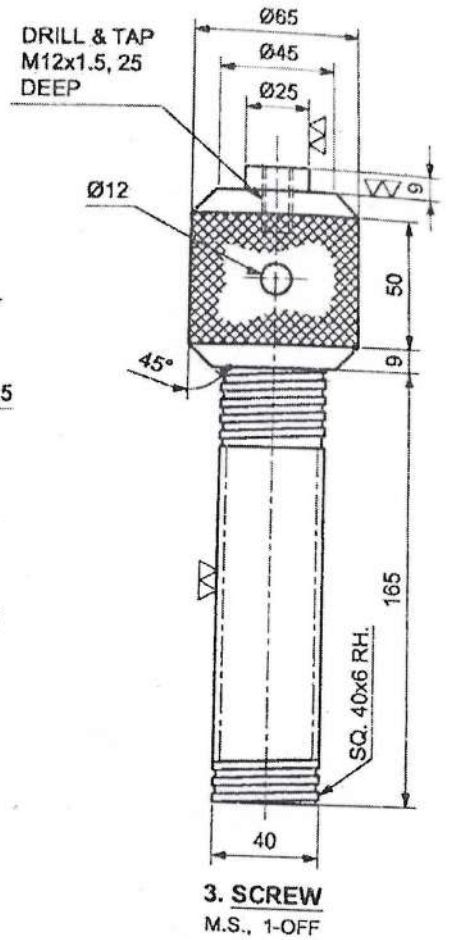
**6. SET SCREW**  
M.S., 1-OFF



**5. WASHER**  
M.S., 1-OFF



**4. CUP**  
C.I., 1-OFF



**3. SCREW**  
M.S., 1-OFF

**TOLERANCE CHART**

$50H7 = +0.030$	$50n6 = +0.039$
$+0.000$	$+0.020$

*CPatil*  
Mr Anil S Patil

*Anil*  
13/06/20