



INDIAN SCHOOL AL WADI AL KABIR

<b>Class: XII</b>	<b>Department: SCIENCE – 2020-2021</b>	<b>Date of Completion:</b> <b>29.10.20</b>
	<b>SUBJECT: <u>ENGINEERING GRAPHICS</u></b>	
<b>Worksheet No:5</b> <b>With Answers</b>	<b>Topic: <u>TIE ROD AND PIPE JOINTS</u></b>	<b>Note: A4 FILE FORMAT</b>
<b>NAME OF THE STUDENT:</b>	<b>CLASS: XII</b> <b>SECTION:</b>	<b>ROLL NO:</b>

**QUESTIONS**

1.The figure shows the assembly of the parts of a flanged pipe joint.Disassemble the parts and draw the following views of the components to scale 1:1, keeping them in the same position with respect to HP and VP.

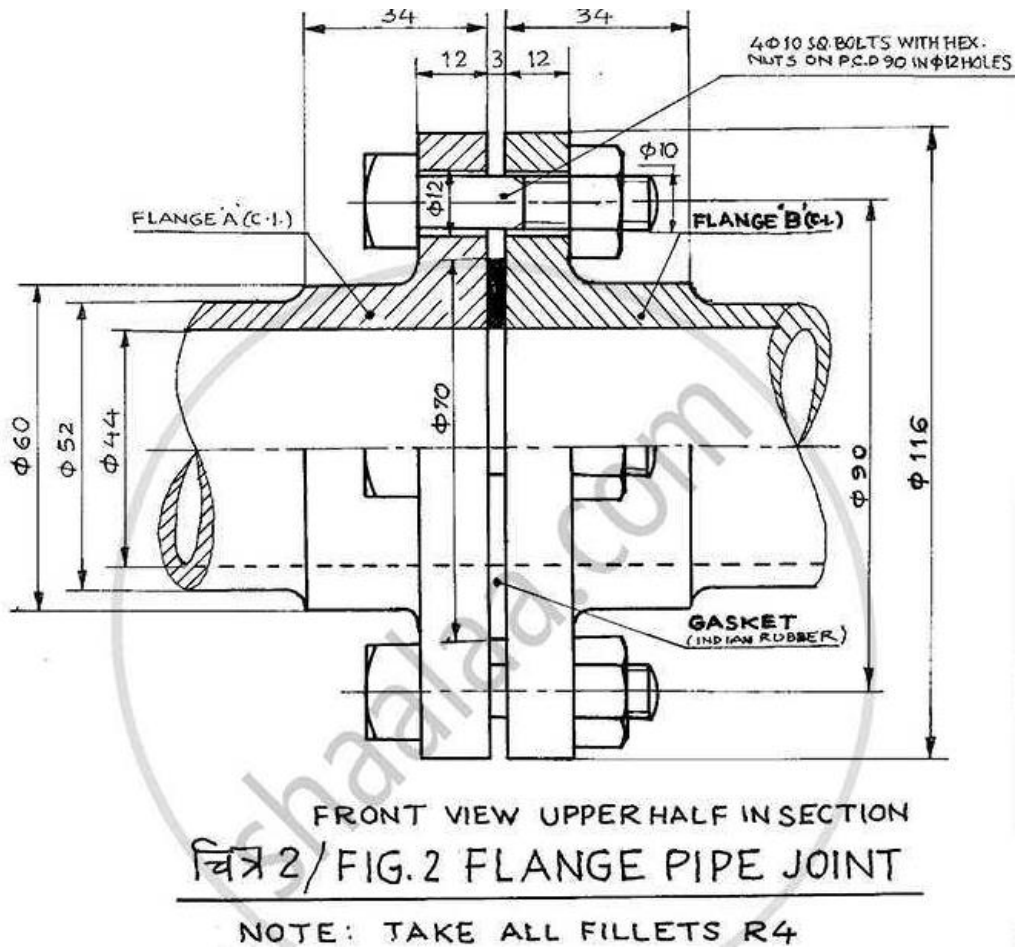
(i) Flange B

- a) Front view, upper half in section
- b) Right hand side view

(ii) Gasket

- a) Full sectional front view
- b) Left hand side view
- c)

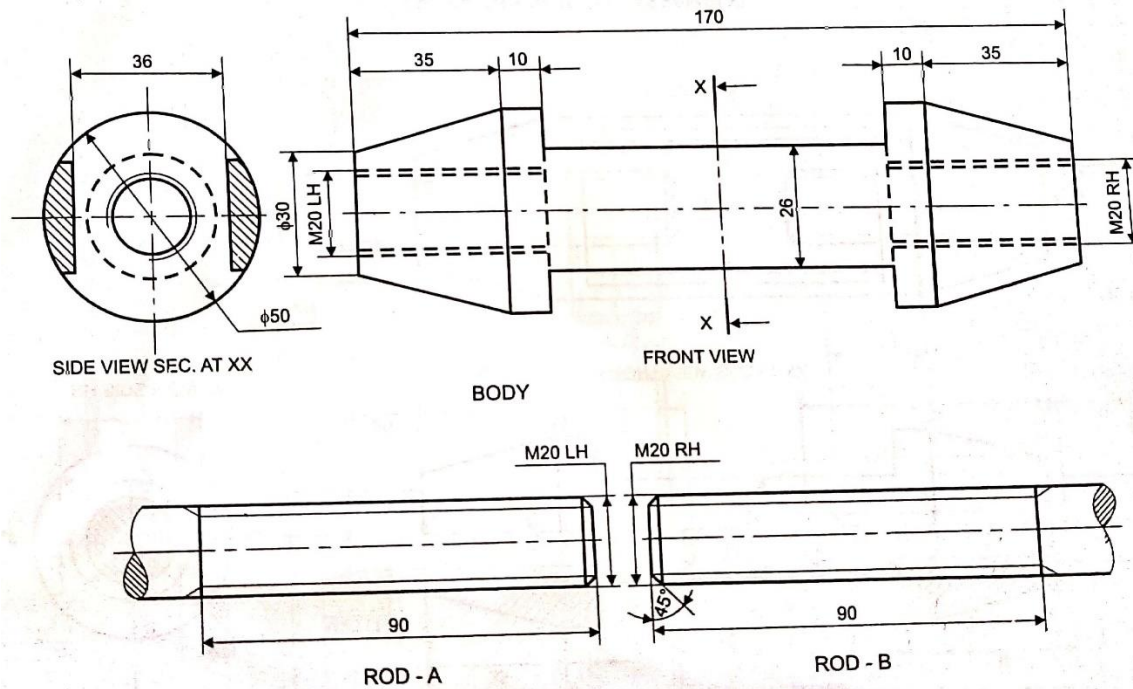
Print the titles of both and scale used. Draw the projection symbol and give 6 important dimensions.



2.The figure shows the details of the parts of a Turnbuckle. Assemble these parts correctly and then draw its following views to a scale 1:1. inserting 70 mm threaded portion of each rod, inside the body of the turnbuckle.

- a) Front view, upper half in section
- b) Side view as viewed from right
- c) Top view

Write heading and scale used. Draw the projection symbol. Give 6 important dimensions,



## MULTIPLE CHOICE QUESTIONS

1. Which joint is used for joining cables, ropes and wires of electric poles ?

- a) Knuckle joint
- b) Flange pipe joint
- c) Tie rod joint
- d) Strap joint

2. A rubber ring as a gasket in flange pipe joint is provided between the two flanges to :

- a) Fill the gap between two flanges
- b) Align the two flanges
- c) Make a leak proof joint
- d) support nuts and bolts

3. How many rods are needed for the assembly of a turnbuckle

- a) 1
- b) 2
- c) 4
- d) 3

4. The hollow cylindrical pipe on the pipe joint is called as

- a) Flange
- b) Gasket
- c) bolt
- d) nut

5. Which one is an adjustable joint ?

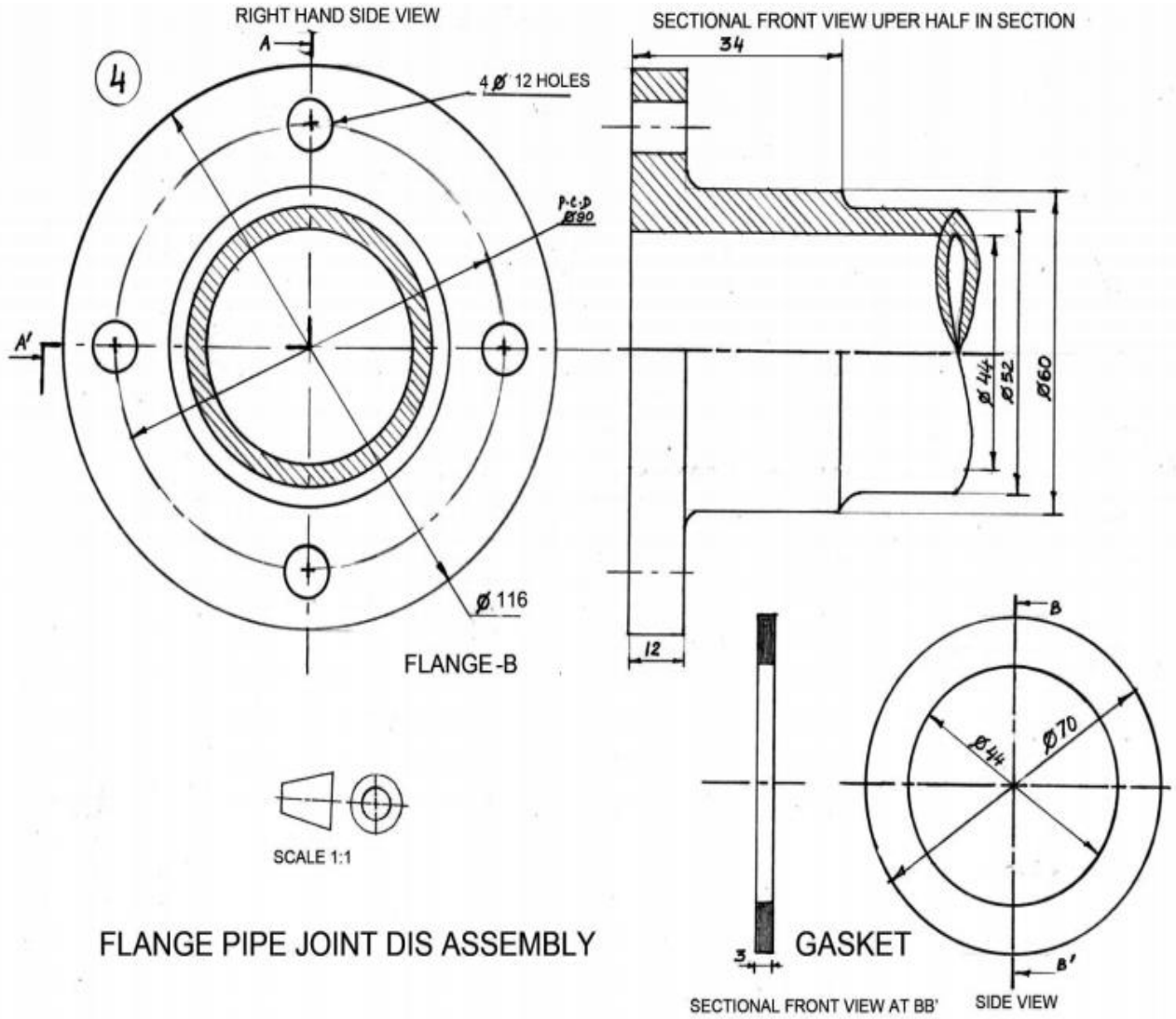
- a) cotter joint
- b) Turnbuckle
- c) Spigot joint
- d) None of the above

**ANSWERS – MULTIPLE CHOICE QUESTIONS**

- 1. C) Tie Rod joint
- 2. C) Make a leak proof joint
- 3. b) 2
- 4. a) Flange
- 5. b) Turnbuckle

# SOLUTIONS FOR DRAWINGS

1.



2.

Solution:

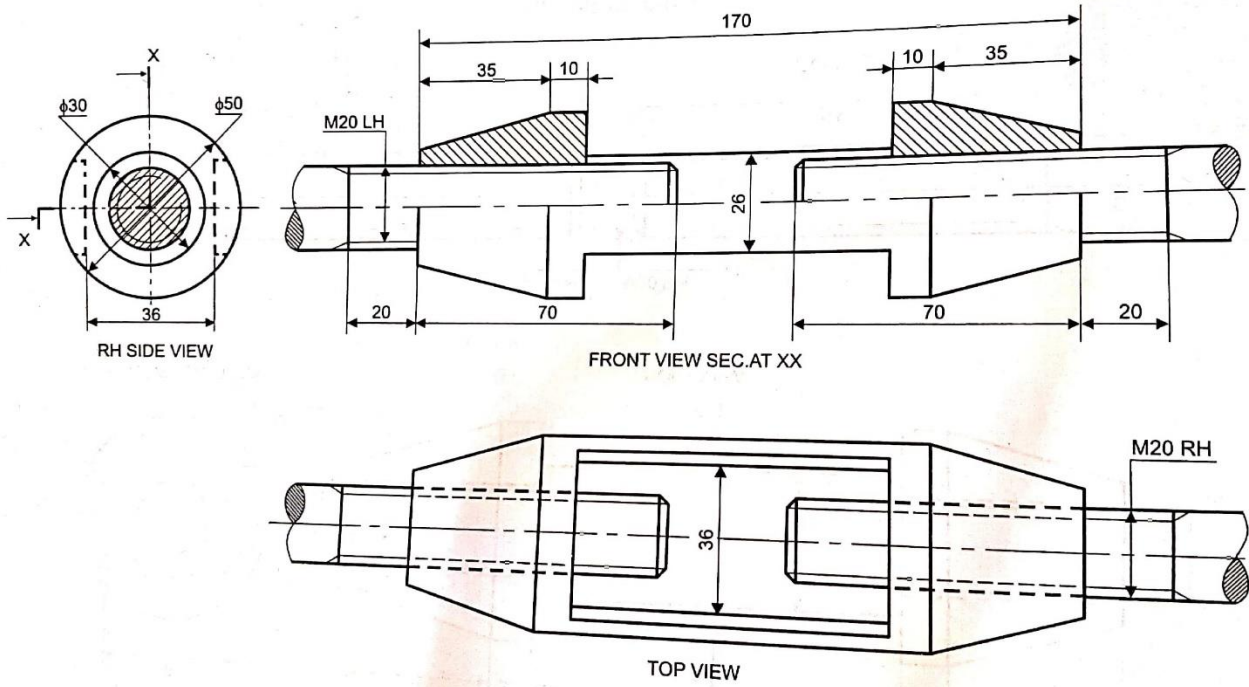


Fig. 6.4 TURNBUCKLE (ASSEMBLY)

Prepared by,  
Mrs. Aiswarya Deepthi.P

CHECKED BY: HOD - SCIENCE