
	INDIAN SCHOOL AL WADI AL KABIR	
Class: XII	Department: SCIENCE – 2021-2022 SUBJECT: <u>ENGINEERING GRAPHICS</u>	Date of Completion: 13.02.2022
Worksheet No:5 With Answers	Topic: <u>TIE ROD AND PIPE JOINTS</u>	Note: A4 FILE FORMAT
NAME OF THE STUDENT:	CLASS: XII SECTION:C	ROLL NO:

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.

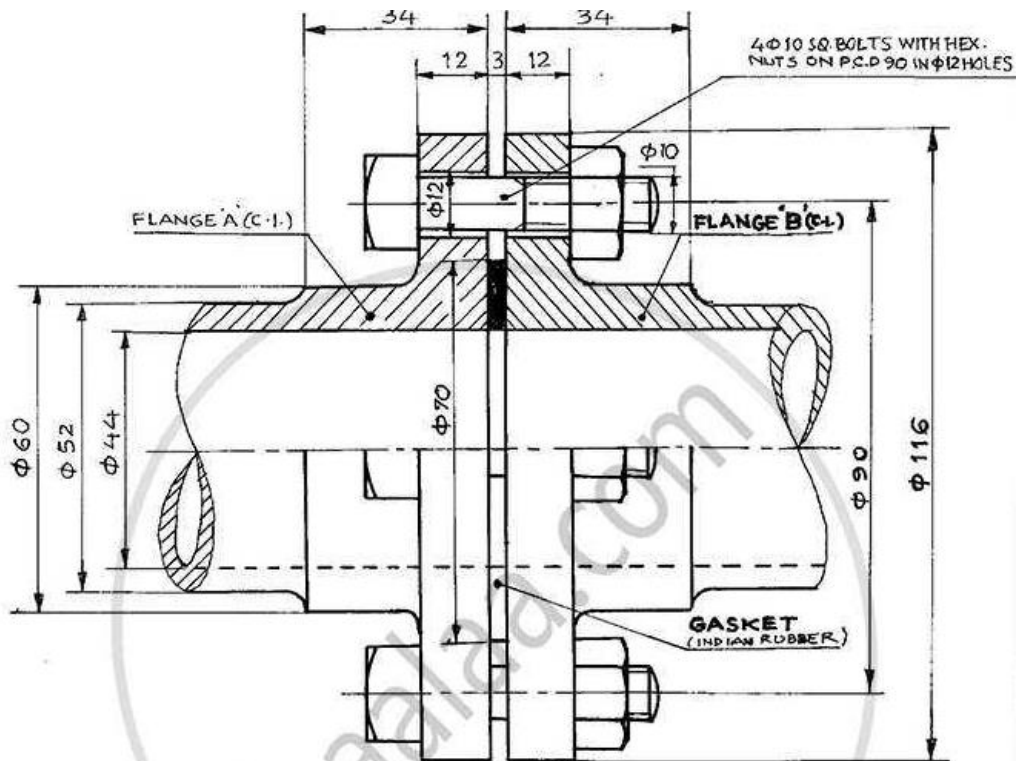
(i) Flange B

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

(ii) Gasket

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

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



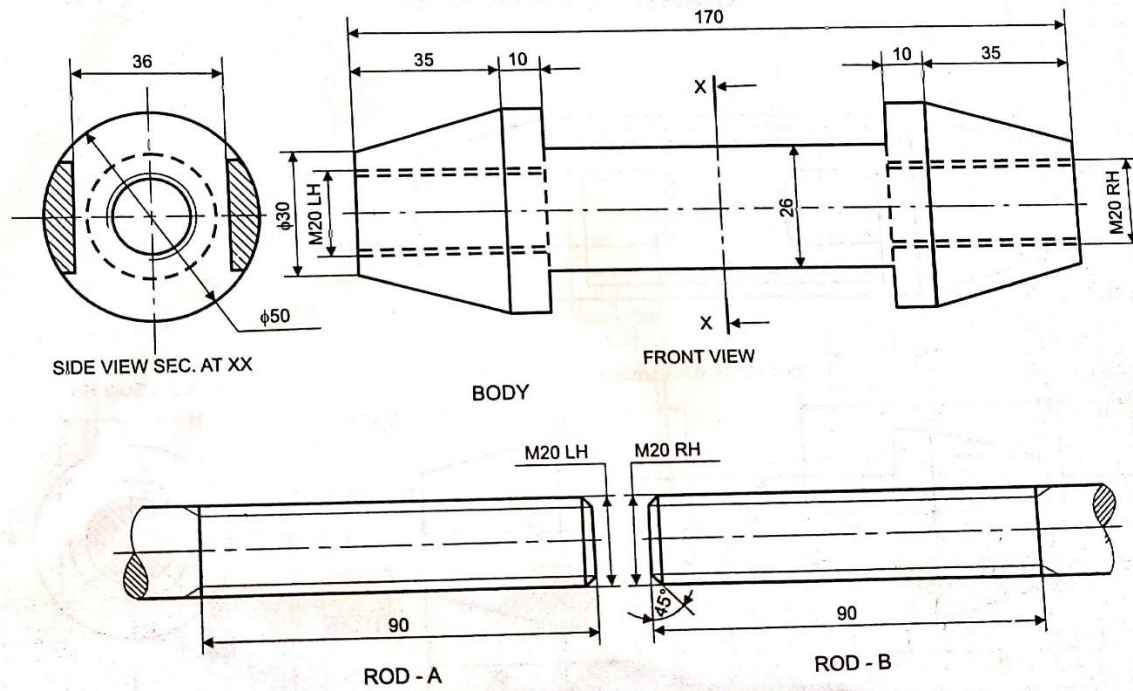
FRONT VIEW UPPER HALF IN SECTION
 चित्र 2 / FIG. 2 FLANGE PIPE JOINT

NOTE: TAKE ALL FILLETS R4

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.

- Front view, upper half in section
- Side view as viewed from right
- 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 ?

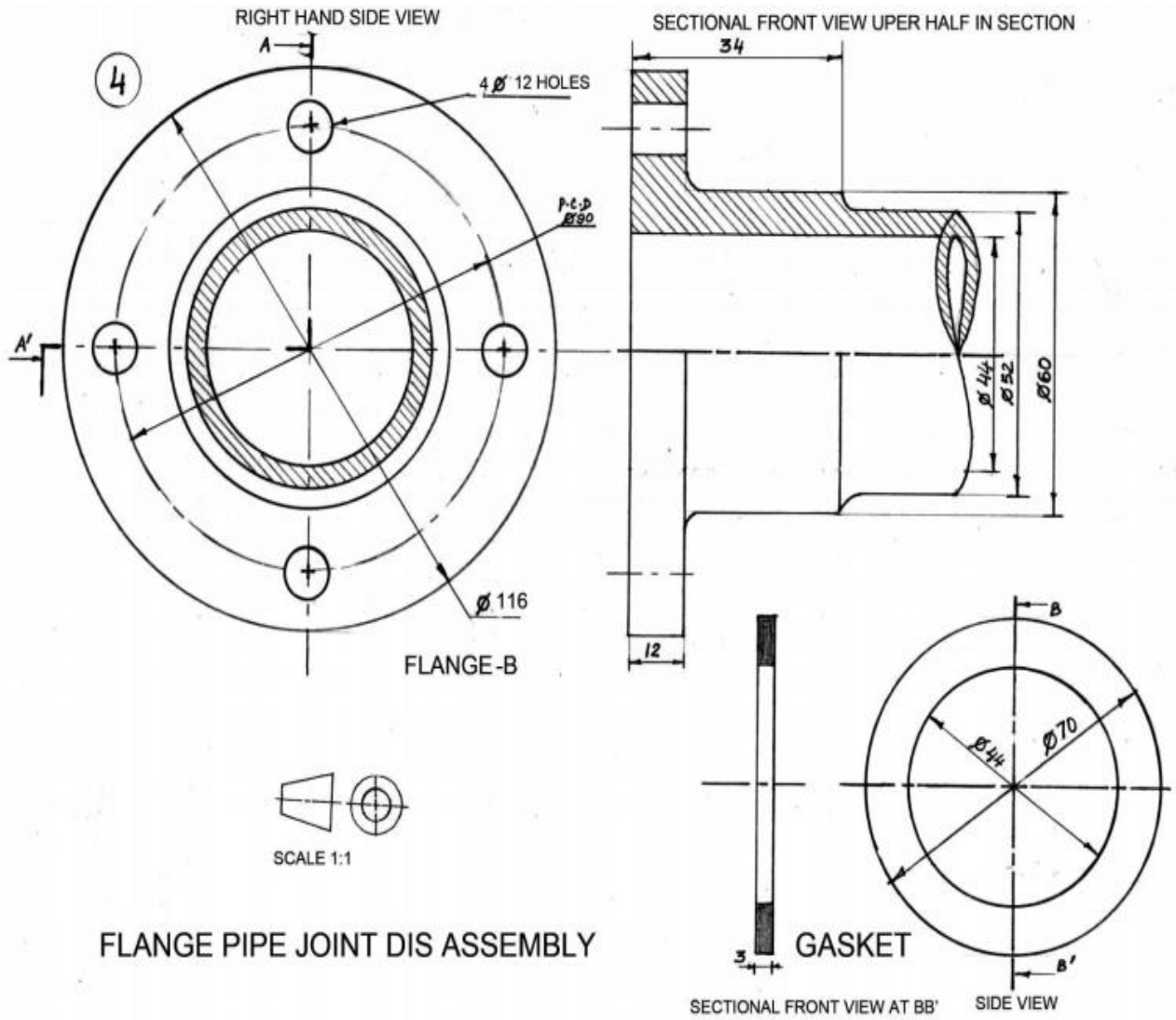
- a) cotter joint
- b) Turnbuckle
- c) Spigot joint
- d) None of the above

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.



FLANGE PIPE JOINT DIS ASSEMBLY

2.

Solution:

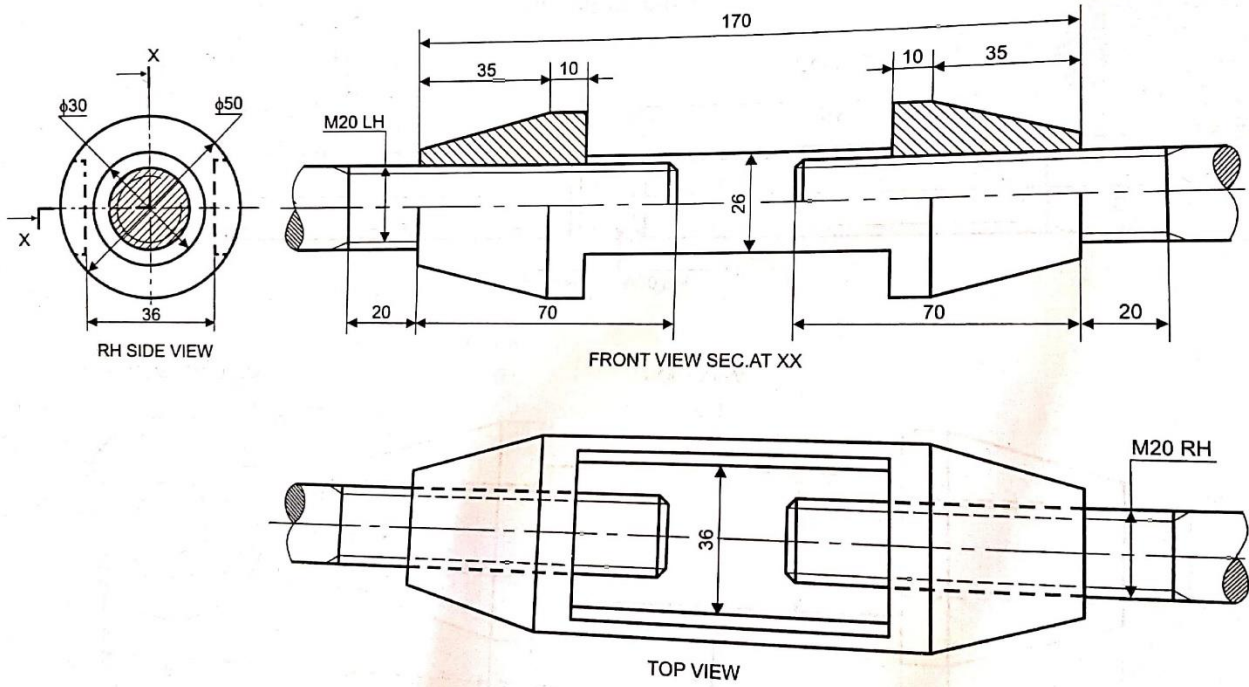


Fig. 6.4 TURNBUCKLE (ASSEMBLY)

Prepared by,
Mrs. Aiswarya Deepthi.P

CHECKED BY:
HOD - SCIENCE