

	INDIAN SCHOOL AL WADI AL KABIR	
CLASS: XII	DEPARTMENT: SCIENCE 2024– 25 SUBJECT: ENGINEERING GRAPHICS	DATE OF SUBMISSION: 17.11.2024
WORKSHEET NO: 5 WITH ANSWERS	UNIT 5: TIE ROD & PIPE JOINTS	NOTE: A4 FILE FORMAT
CLASS & SEC: XII C/E	NAME OF THE STUDENT	ROLL NO.

ASSESEMBLY OR DISASSEMBLY QUESTIONS

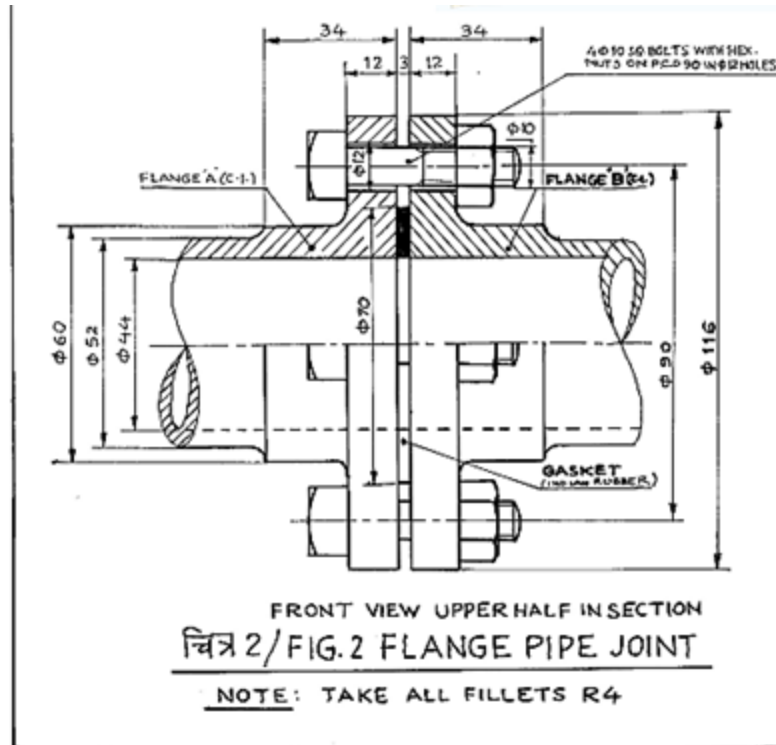
1. The figure shows the assembly of the parts of a flanged pipe joint. Disassemble the parts and draw the following views of the components to scale 1:1, keeping them in the same position with respect to HP and VP.

(i) Flange B

- Front view, upper half in section.
- Right hand side view.

(ii) Gasket

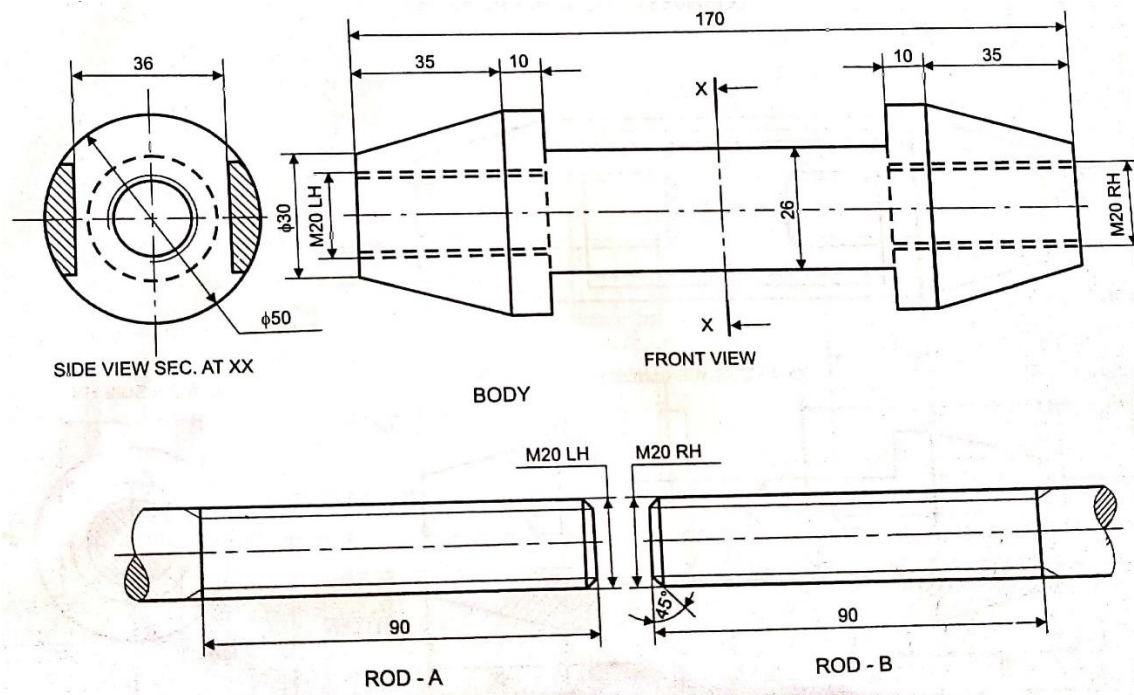
- Full sectional front view.
- Left hand side view.
- Print the titles of both and scale used. Draw the projection symbol and give 6 important dimensions.



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.

- 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

6.The body of a turnbuckle has a slot at the central portion-----

- a) to reduce friction
- b) to increase the friction
- c) to aid removing the defect in manufacturing
- d) to aid tightening and loosening of rods by tommy bar

7.Gib is provided towards which end of fork in a cotter joint?

- a) broken end
- b) lower end
- c) upper end
- d) open end

8.Gib is always provided in conjunction with:

- a) key
- b) bolt
- c) cotter
- d) rivet

9. Strap is a part of which of the following machine joint?

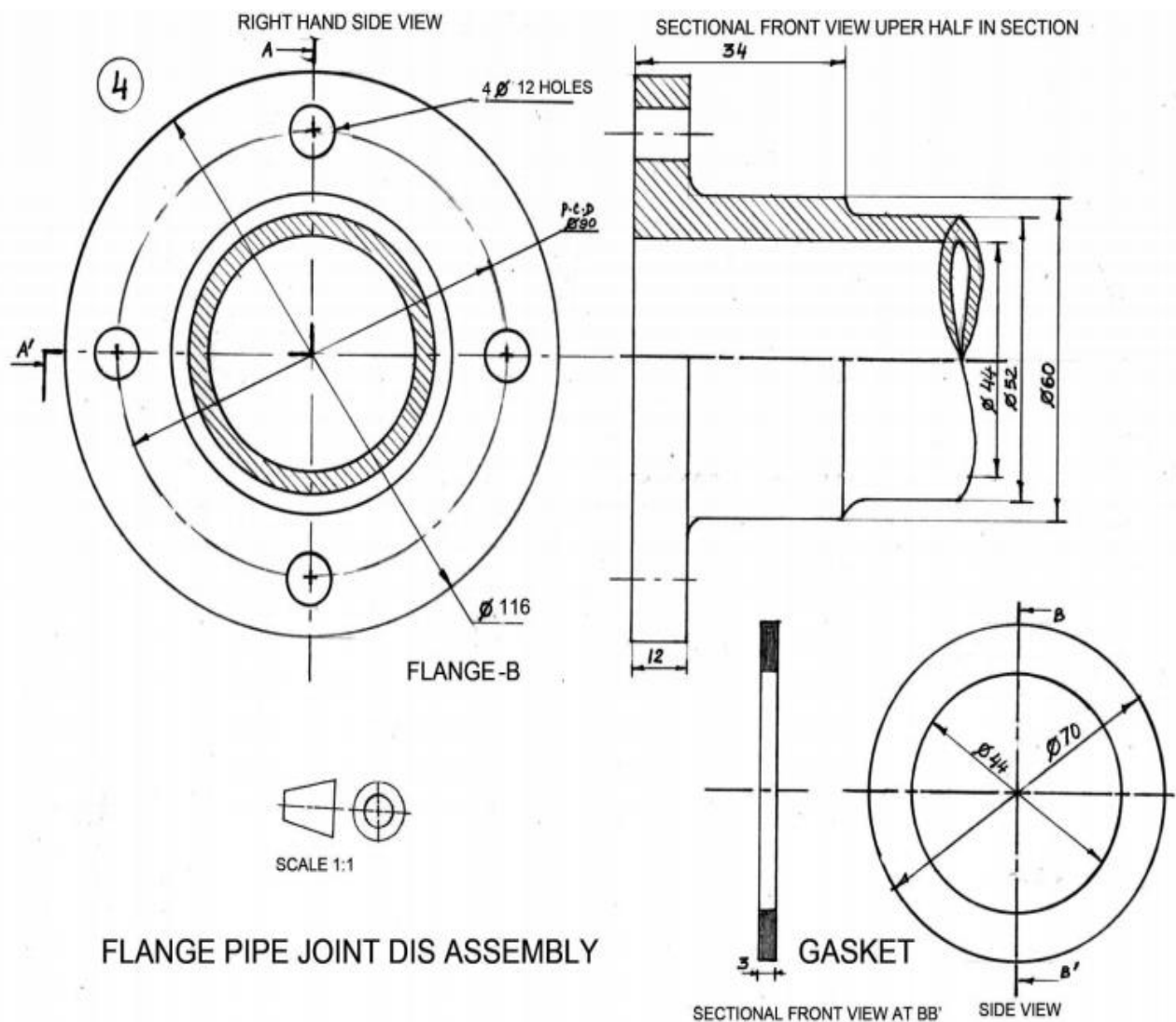
- a) Flange pipe joint
- b) Gib and cotter joint
- c) Tie rod joint
- d) Sleeve and cotter joint

10. In a gib and cotter joint, if the thickness of the cotter is 8mm, then the thickness of gib will be-----

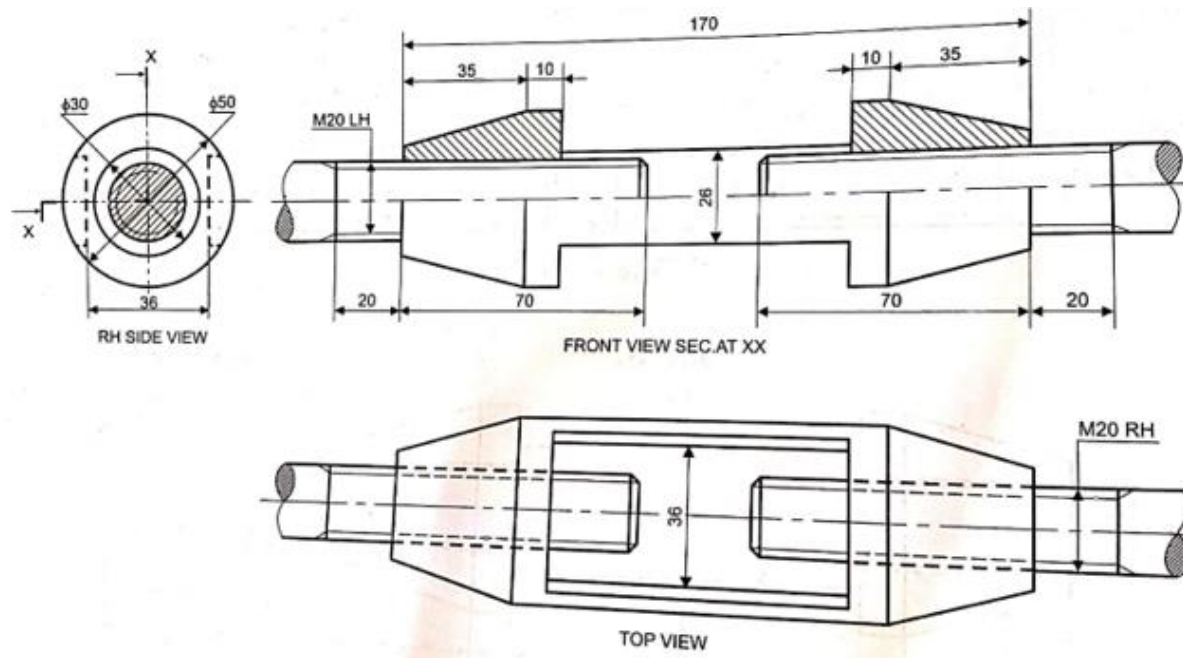
- a) 6 mm
- b) 4 mm
- c) 8 mm
- d) 2 mm

SOLUTIONS FOR DRAWINGS

1.



2.



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
6. d) to aid tightening and loosening of rods by tommy bar
7. d) open end
8. c) cotter
9. b) Gib and cotter joint
10. c) 8 mm

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