INDIAN SCHOOL AL WADI AL KABIR

DEPARTMENT OF SCIENCE - 2025-2026

CLASS 12 - ENGINEERING GRAPHICS

HOLIDAY ASSIGNMENT

GENERAL GUIDELINES

1. Complete the journal work – Machine block 1 to Machine block 15
All orthographic views and isometric views in A4 size sheets of paper.

2.Maintain the drawing sheets neatly in an A4 size file.

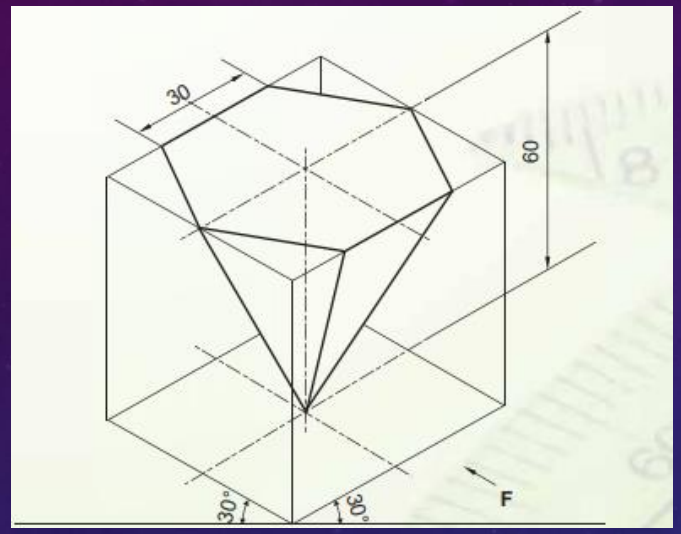
3.Holiday assignments also can be done in A4 size sheets of paper.

3. Date of submission of journal and holiday assignments is on 7th August (Thursday) 2025.

DIAGRAM BASED QUESTIONS – MCQ'S

Select the correct option corresponding to the orientation of the given Isometric Projection:

1.



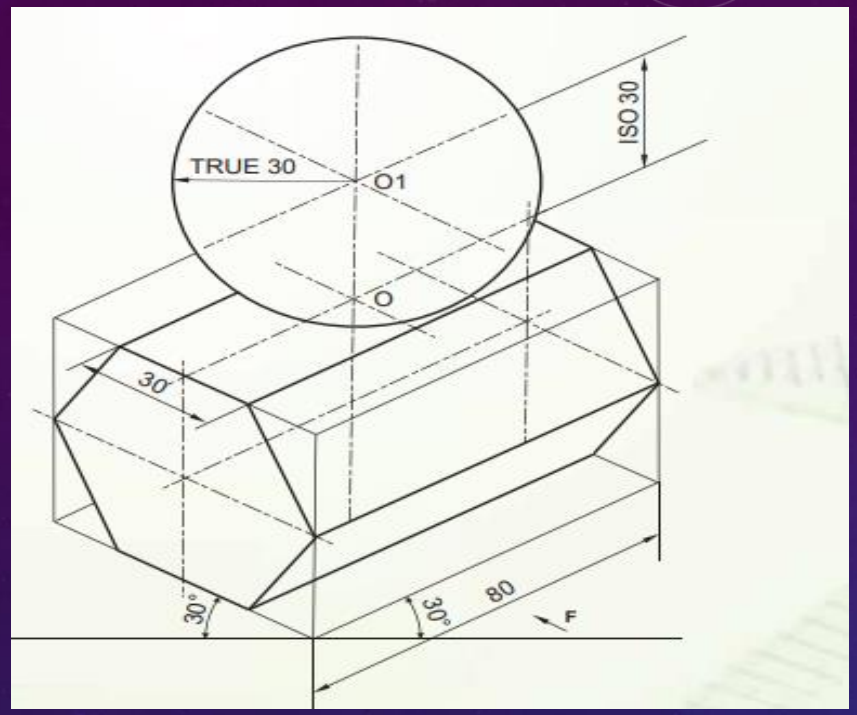
a) The axis is inclined to H.P.

b) The axis is inclined to V.P.

c) The axis is perpendicular to H.P. and parallel to V.P.

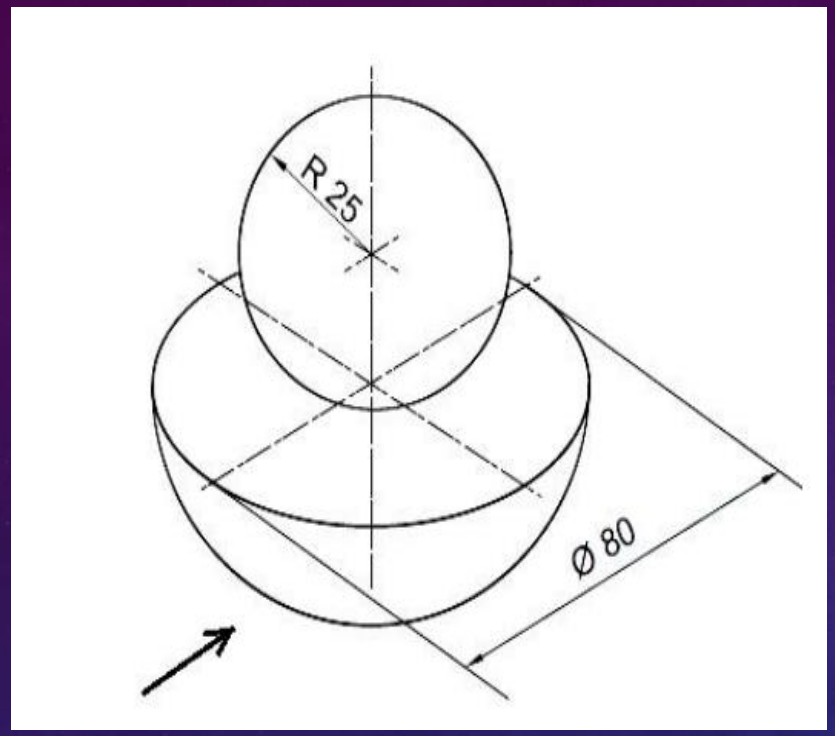
d) The axis is perpendicular to V.P. and parallel to H.P

2.



a) A hemisphere is kept centrally on the top hexagonal surface of a hexagonal prism with its curved surface on it.
b) A sphere is kept centrally on the top hexagonal surface of a hexagonal prism with its curved surface on it.
c) A sphere is kept centrally on the top rectangular face of a hexagonal prism with its curved surface on it.
d) A hemisphere is kept centrally on the top rectangular face of a hexagonal prism with its curved surface on it.

3.



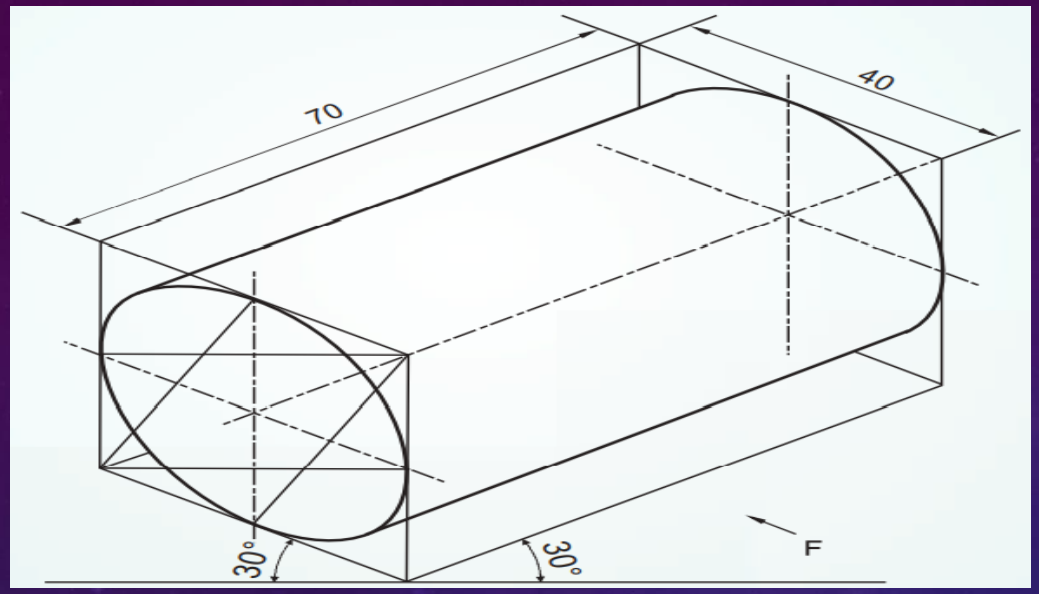
a) The length of common axis is true 65mm

b) The length of common axis is iso 65mm

c) The length of common axis is more than iso 65mm

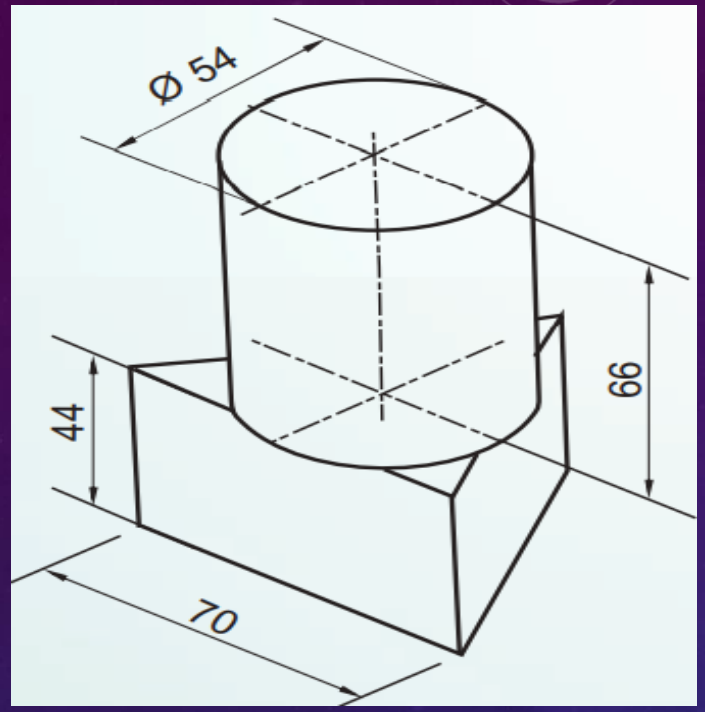
d) The length of common axis is less than iso 65mm

4.



a) The axis is inclined to H.P.
b) The axis is inclined to V.P.
c) The axis is perpendicular to H.P. and parallel to V.P.
d) The axis is perpendicular to V.P. and parallel to H.P

5.



a) A vertical cylinder of base diameter 54 mm is placed centrally on a hexagonal prism which is resting on HP with one of its long edges.

b) A vertical cylinder of base diameter 54 mm is placed centrally on a triangular prism which is resting on HP with one of its triangular faces.

c) A vertical cylinder of base diameter 54 mm is placed centrally on a pentagonal prism which is resting on HP with one of its rectangular faces.

d) A vertical cylinder of base diameter 54 mm is placed centrally on a hexagonal prism which is resting on HP with one of its rectangular faces.

Draw & Practice

1.Construct an isometric scale

2. Draw the isometric projection of a pentagonal prism (base edge 25 mm, axial length 55mm) resting on its face with its axis parallel to H.P. and V.P. both. Indicate the direction of viewing. Give all the dimensions.

3. Draw to scale 1:1, the front view and top view of a square headed bolt, the diameter is given as 30 mm and the shank length of the bolt is 110 mm. The axis of the bolt is vertical. Give the standard dimensions.

4. Draw to scale 1:1, the standard profile of metric screw thread (internal) taking enlarged pitch as 50mm. Give standard dimensions.

5. Draw to scale 1:1, the front view and side view of a hexagonal headed bolt, the diameter is given as 25 mm and the shank length of the bolt is 120 mm. The axis of the bolt is vertical. Give the standard dimensions.

THANK YOU