INDIAN SCHOOL AL WADI AL KABIR

DEPARTMENT OF SCIENCE – 2025-2026

CLASS 11 – ENGINEERING GRAPHICS

HOLIDAY ASSIGNMENT

ART INTEGRATED PROJECT

Topic: **Orthographic Views of an Indian Historical Monument**
Submission Format: A3 size drawing sheet.

Objective:

To understand and apply the principles of orthographic projection by drawing **any two orthographic views (Front, Side, or Top)** of an Indian historical monument.

Instructions:

Choose One Indian Historical Monument:

Select a well-known monument such as the **Taj Mahal**, **Qutub Minar**, **Charminar**, **Red Fort**, **Gateway of India**, etc.

Draw Any Two Orthographic Views:

You may choose **Front View + Top View**, **Front View + Side View**, or **Top View + Side View**.
Ensure accuracy and proportion in your drawings.

Sheet Specifications:

Use a **white A3 size drawing sheet** (420 mm × 297 mm).
Maintain margin on all four sides of the sheet.
Use **pencils (0.3, 0.5, 0.7)** for clean linework and proper shading where necessary.
All construction lines should be light and clear.

Title Block (Bottom Right Corner):

- Name of the Student

- Roll Number

- Class & Section

- Name of the Monument

- Views Represented (e.g., Front & Side View)

Labelling and Dimensioning:

Use proper symbols, line types, and dimensioning as per Engineering Graphics standards.
Label each view clearly.

Neatness and Presentation:

Avoid smudging or overlapping lines.
Ensure drawings are to scale, clean, and properly aligned.

Submission date : **7th August , (Thursday) 2025**

DRAW & PRACTICE

1. Divide a straight line into seven equal parts.

2. Construct a triangle FDE having its perimeter AB equal to 100 mm and its sides in the ratio 2:3:4.

3. Construct a trapezion ABCD, having AE the difference of its diagonals, equal to 20 mm.

4. Circumscribe a circle about a regular pentagon ABCDE of 30 mm sides.

5. Construct a regular pentagon ABCDE of 30 mm sides using compasses.

6. A line AB is inclined to HP at 30 degree and parallel to VP, its top view is 50mm long .Its end A is 10 mm from HP and 25 mm from VP. Draw its front view and top view in first quadrant. Also find the true length of the line.

7. A line AB, 70mm long makes an angle of 60 degree with the HP and its top view makes an angle of 45 degree with VP. Its end A is 10 mm above HP and 20 mm in front of VP. Draw its front view and top view. Also find the true angle of inclination with the VP. Using line rotation method.

8. A line AB has its end A, 10mm from VP and 15 mm from HP, and B is 30mm from HP and 45mm from VP. The distance between its end projectors is 40mm.Draw its front view and top view. Also find its true length and true length of inclination with HP and VP using trapezoid method. Follow the first angle method of projection.

9. Draw the projection of a line PQ, 30 mm long, in the following positions.
   (i) Perpendicular to the H.P., 30 mm in front of V.P. and its one end 25 mm above the H.P.
   (ii) Perpendicular to the V.P., 15 mm above the H.P. and its end in the V.P.

10. Draw the projection of a 40 mm long AB, Straight line in the following positions.
   (i) Parallel to both H.P. and V.P. and 15 mm above H.P. and 30 mm in front of V.P.
   (ii) Parallel to and 20 mm above H.P. and in the V.P.

GENERAL GUIDELINES

1. Complete the holiday assignments in A4 size sheets of paper.

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

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