

INDIAN SCHOOL AL WADI AL KABIR

DEPARTMENT OF SCIENCE 2018 -19

Class 11 - Engineering Graphics- Summer Holiday Assignment

1. Divide a straight line AB, proportionate to four given lines a,b,c and d.(a=5,b=4,c=3,d=2).
2. Construct a Right angled Triangle ABC, having its hypotenuse AB=60 and the median from the angular point C making the angle CDB with the hypotenuse equal to a given angle d.(angle D = 60 degree).
3. Construct an Isosceles Triangle ABC, having each of its sides = 50mm and each of its base angles equal to the given angle B.(angle B = 45 degree).
4. Construct an Isosceles Triangle ABC, having its base equal to 40 mm and its altitude AD=40mm.
5. Construct an Isosceles Triangle ABC, having its perimeter EF = 55 mm and its altitude AD=20mm.
6. Construct an Isosceles Triangle ABC, having the difference of its hypotenuse and side equal to 20mm.
7. Construct a Triangle ABC, having its base BC=50mm, side AB=40mm, side AC=60mm.
8. Construct a Triangle ABC, having its altitude AD 35mm, side AB 40mm and side AC 50mm.
9. Construct a Triangle ABC, having its base BC 40mm, the sum of other two sides 50mm and inclined angle equal to given angle C (angle C= 60 degree).
10. Construct a square ABCD of 40mm sides with compasses.
11. Construct a Rhombus ABCD, having its diagonal AC=60mm and its side equal to 40mm.
12. Construct a Rhombus ABCD, having its diagonal AC=45mm and the diagonal BD=35mm.
13. Construct a Trapezion or Kite ABCD, having its diagonal AC=50mm, its adjacent sides AD and AB each equal to 30mm and CD and CB equal to 40mm.

14. Construct an Irregular polygon ABCDE from the following data: Sides: AB=25, BC=30, CD=35, ED=20 and AE=20mm. Diagonals: AC=42 and AD=37mm.

15. Draw a direct common Tangent to two equal circles of diameter 30mm, having their centres O and C, 35mm apart. (P.T.O)

16. Draw a circle to pass through a given point C and to touch a given straight line AB in a given point D.

17. Draw a circle to touch a given straight line AB and to pass through two points C and D, given outside it, at equal distance from it.

18. Construct a spiral about any regular polygon (Pentagon) of 7mm sides.

19. Construct an Involute of a circle of 30mm diameter.

20. Draw the cycloid of a circle whose diameter equal to 40mm.

Note: All the dimensions should be in millimeters (mm).

Date of Submission : On Reopening day

Prepared by Ms. Aiswarya