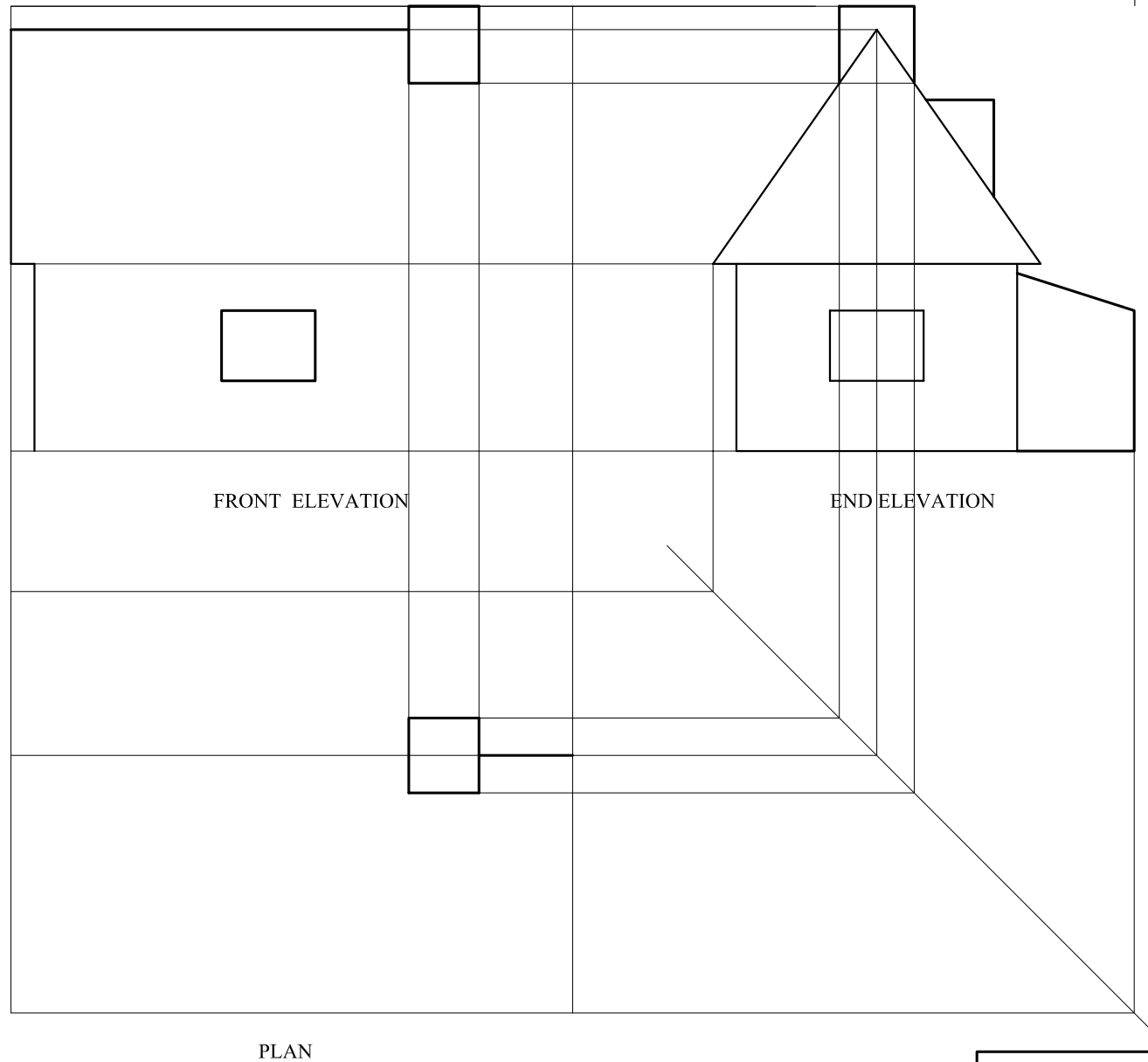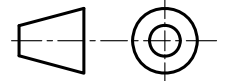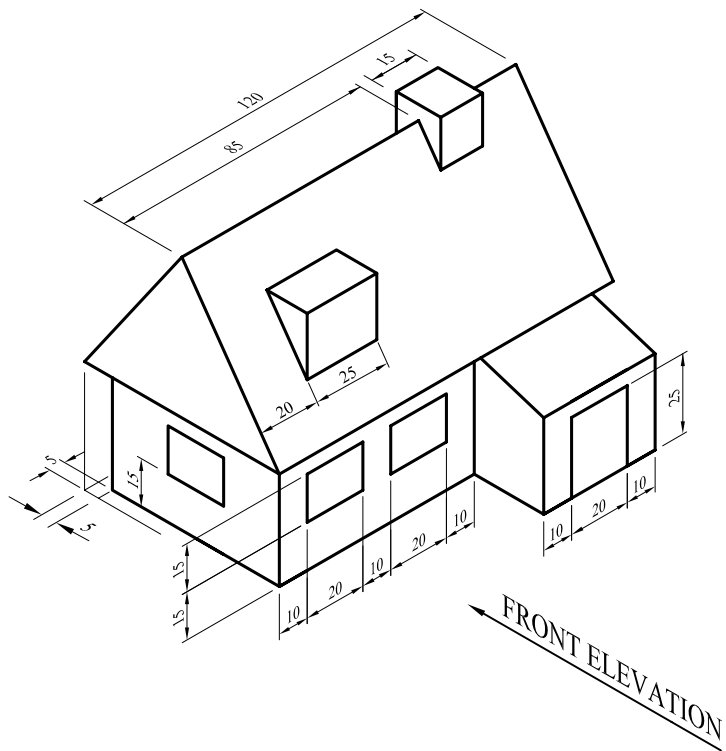QUESTION 1. The drawing shows a pictorial view, a complete end elevation, an incomplete front elevation and an incomplete plan of a **MODEL HOUSE**.

a) In first angle orthographic projection and to the dimensions given,
 i) complete the front elevation as indicated by the arrow,
ii) complete the plan.

b) In the title (name) block provided below, print in block letters, the name of object, your surname and name, class, date and scale.
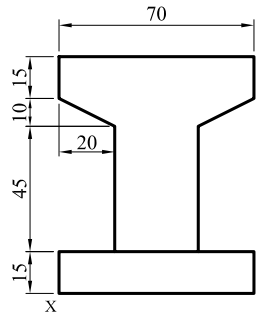
25 marks

FRONT ELEVATION

FRONT ELEVATION

END ELEVATION

PLAN

Sheet 1 of 4

EDUCATIONAL ASSESSMENT UNIT

NAME OF OBJECT

NAME:

CLASS:

DATE:

SCALE:

QUESTION 2. Three orthographic views, an oblique projection and a sketch of a pillar used to support motorways are shown.
Using the given start lines, draw full size, an **isometric projection** of the pillar, putting X as the lowest corner.
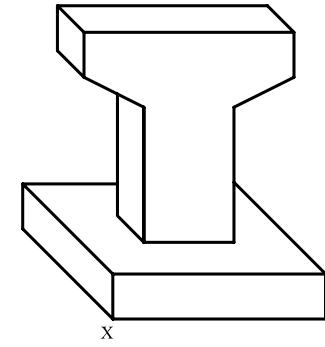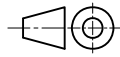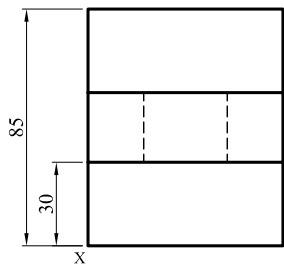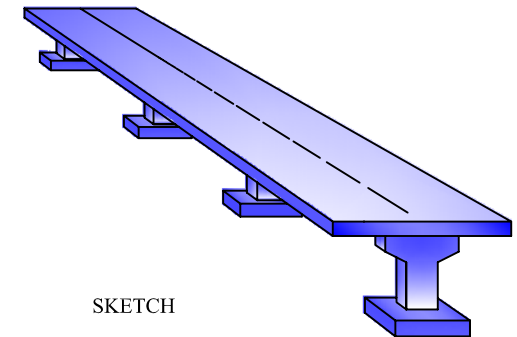
18 marks

FRONT ELEVATION

70

15

10
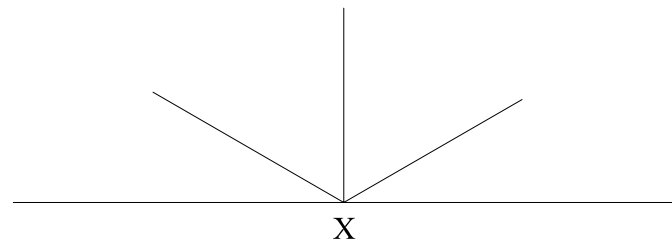
20

45

15

X

END ELEVATION

25

X

PLAN

85

30

X

OBLIQUE PROJECTION

X

SKETCH

X
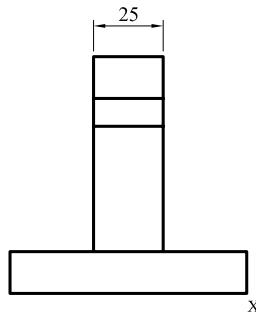
QUESTION 3. A large warehouse has a curved ceiling which rests on a triangular framework.
A pictorial drawing and a front elevation are given to show details of the building.   The ceiling
forms part of a circle which touches the triangle at points A, B and C.
Using the dimensions listed below, draw the front elevation as follows:
a)   with XY as the base, draw the rectangle BXYC,
b)   with BC as the base, construct the triangle ABC,
c)   circumscribe a faint, complete circle around triangle ABC, using the necessary construction,
d)   indicate, by using the proper outline, the arc BAC.
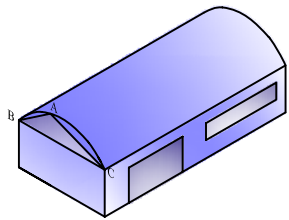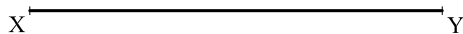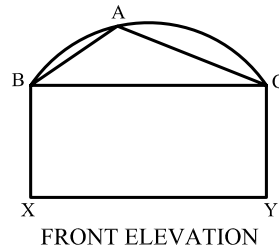
16 marks

DIMENSIONS:
BX = 35
Angle ACB = 22°
AB = 35

FRONT ELEVATION

PICTORIAL DRAWING

X   Y

QUESTION 4. The figure shows the logo of a *keep fit* club. The logo is drawn on a base line XY.
On the start line XY given below, draw the logo as follows:
a)   divide geometrically line XY in the ratio of 2:4:2,
b)   draw the logo to the given dimensions, making use of set-squares and ruler.

14 marks

120°

90

45°   60°

X RATIO   RATIO OF 4   RATIO Y
   OF 2   OF 2

X   Y
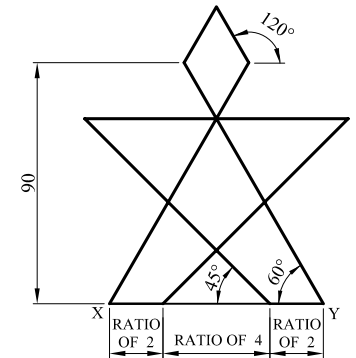
Sheet 3 of 4

QUESTION 5. The top of an octagonal dome has the shape of an octagonal pyramid. An incomplete front elevation and a complete plan of the pyramid are shown.
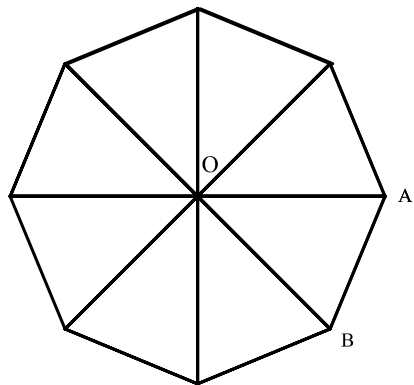a) Complete the front elevation, making use of projection lines taken from the plan.
b) Construct the development of the pyramid, assuming the joint line OA and starting from the given apex O.

15 marks

OCTAGONAL PYRAMID

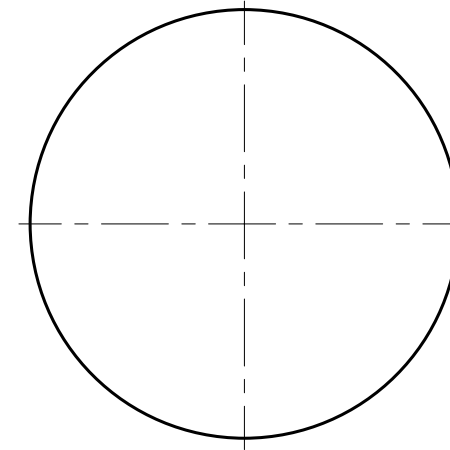DOME

O

A

FRONT ELEVATION

O

O

A

B
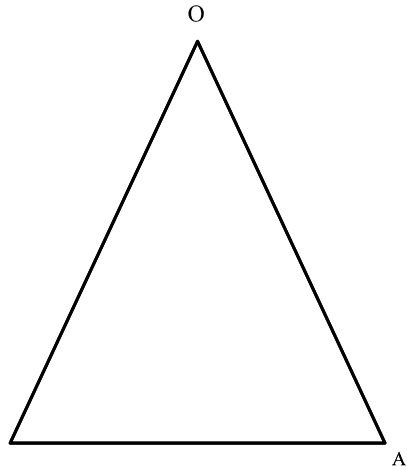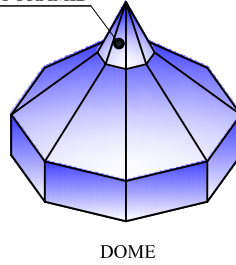
PLAN

QUESTION 6. Using the necessary construction, draw a regular heptagon (7 sides) within the circle given below.
Write down the length of the side of your heptagon in the space provided.

12 marks

LENGTH OF SIDE OF HEPTAGON: _____ mm