TED (15) 2005B
(Revision -2015)

N20 - 00132

Reg. No.....
Signature .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2020

ENGINEERING GRAPHICS

[Maximum Marks: 75] [Time: 2.15 Hours]

[Note: 1. Both sides of the given A2 size drawing sheet can be used.
2. First angle projection is to be followed.
3. Missing data if any may be suitably assumed.
4. Sketches accompanied.]

PART-A

(Answer ***any three*** questions in one or two sentences. Each question carries 2 marks)

I. 1. Give the designation and sizes in mm of preferred sizes of drawing sheets as per BIS.

2. Define Conic section.

3. Define cycloid.

4. Using simple sketches show the different types of oblique projections.

5. Give any four options to draw circles using Auto CAD. **(3x2=6)**

PART-B

(Answer any ***four*** of the following questions. Each question carries 11 marks)

II. What are the different arrangements of dimensioning? Give names with simple sketches.

III. A body is projected with an initial velocity of 20 m/s, travels a horizontal distance of 75m and reaches a maximum height of 45m. Draw the path of the body and name it.

IV. Inscribe a regular heptagon of side 20 mm in a circle.

V. A line PQ 60mm long has its end P 30mm above HP and 15mm in front of VP. The end Q is 50mm above HP and 45mm in front of VP. Draw its projections and find
(a) it's true inclinations with HP and VP. (b) Length of line in front view and top view.

VI. A frustum of a square pyramid has base sides 50mm, top sides 25mm and height 75mm. It is resting on HP such that one of its base side is parallel to VP. Draw the development of the lateral surfaces of the frustum of the pyramid.

VII. Construct a cycloid, given the radius of rolling circle as 25mm.

VIII. Draw the involute of a circle of 50mm diameter.

(4x11=44)

PART-C

(Answer any ***one*** question from the following carries 25 marks)

IX. Isometric view of a machine part is given in fig-1. Draw and dimension the

(a) Front view in the direction of arrow F.

(b) It's top view.

(c) Left side view.

X. Oblique projection of a machine part is given in fig-2. Draw and dimension the following.

(a) Front view in the direction of arrow F.

(b) Full sectional top view along the direction A-A.

XI. Orthographic view of a T-block is given in fig-3. Draw its isometric view and dimension it.

(1x25=25)

Sketches.

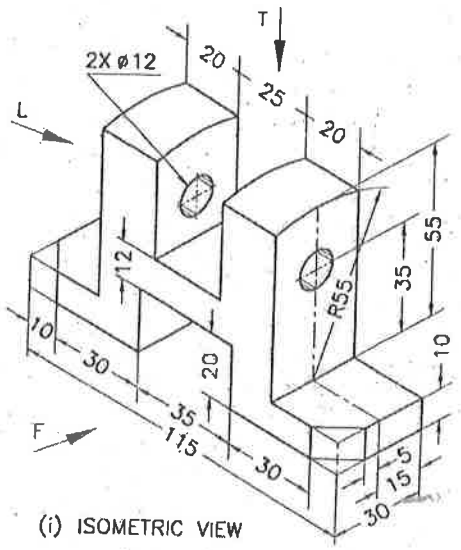

Fig - 1

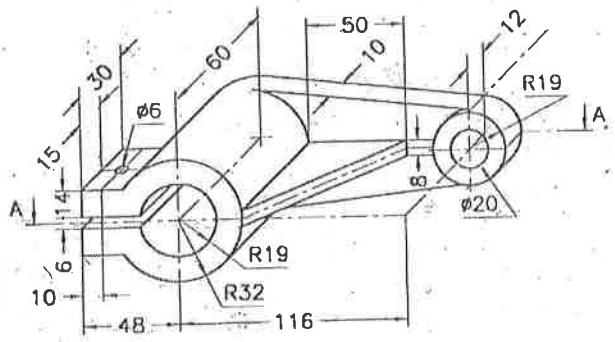

Fig - 2

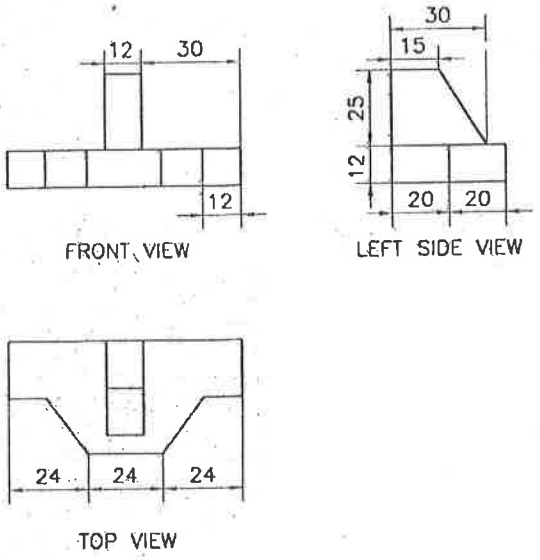

Fig - 3
