This question paper contains 3 printed pages.]

1407 **A**

B.Sc. (Hons.)/III

ELECTRONIC SCIENCE—Paper 3.2 (XVI)

(Engineering Drawing)

Time : 3 *Hours* *Maximum Marks* : 38

(Write your Roll No. on the top immediately

on receipt of this question paper.)

Attempt Five questions in all, including

Question No. 1 which is compulsory.

1. (a) Write in single stroke vertical capital letters with dimensions 2.1 cm : 1.5 cm the following :

QUANTUM PHYSICS 3

(b) The distance between two stations is 600 km. It is represented on a railway map by a line 15 cm long. Construct a diagonal scale to measure upto a kilometre and find its RF. Indicate a distance of 346 kilometres on the map. 7

2. (a) Draw an ellipse by concentric circles method, given the major
and minor axes 100 mm and 55 mm respectively. 3

(b) Draw, by off set method, a parabola given its span and size as
105 mm and 75 mm respectively. 4

3. Construct an Archemeadian spiral of one convolution, given the
radial movement of point P during one convolution as 60 mm and
initial position of P on pole O. 7

4. (a) Draw an involute to an equilateral triangle of 20 mm side. 3

(b) Draw a single start helix of 80 mm pitch in a vertical cylinder of φ
50 mm. 4

5. A hexagonal prism side of base 25 mm and axis 50 mm long, rests
with one of its base corner on H.P. Such that its base makes an angle
of 60° to H.P. and its axis is parallel to V.P. Draw its projections. 7

6. Draw the front, top and side view of the block given below : 7
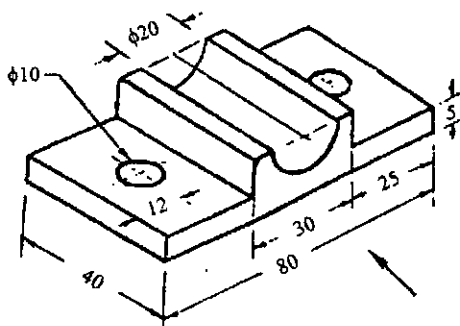
7. Draw two isometric drawing of the object whose orthographic projections are given below :   7