[This question paper contains 2 printed pages.]

Sr. No. of Question Paper : 2147 **GC-3** **Your Roll No.....**

Unique Paper Code : 32223906

Name of the Paper : Technical Drawing

Name of the Course : **B.Sc. (Hons.) Physics (CBCS) – Skill Enhancement Course**

Semester : III

Duration : 3 Hours Maximum Marks : 50

Instructions for Candidates

1. Write your Roll No. on the top immediately on the receipt of this question paper.
2. Attempt any **five** questions.
3. **All** questions carry equal marks.
4. Use separate appropriate sheets for drawings.

1. (a) Write in single strokes capital letters

TECHNICAL DRAWING (4)

(b) Construct a Diagonal scale of R.F. = 1:50 to read meters, decimeters & centimeters and long enough to read up to 6 meters. Show on this scale a distance of 4 m, 5 dm and 4 cm. (6)

2. Construct a parabola of 120 mm base and axis of 84mm by tangent method.

OR

Construct a parabola having focus at a distance of 80 mm from directrix. (10)

3. Construct an Archimedean spiral with two revolutions in circle of radius 240 mm. (10)

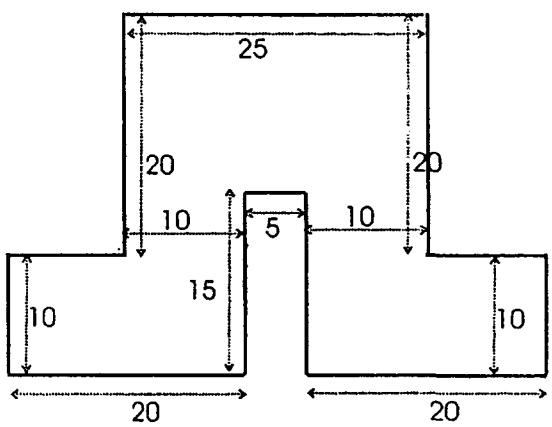
4. (a) A line PQ 40 mm long is parallel to vertical plane and is inclined at an angle of 30° to horizontal plane. The lower end P is 15mm above horizontal plane and 20mm in front of vertical plane. Draw the front and top projections of the line. (4)

P.T.O.

(b) Draw the front view, the top view and left hand side view of a hexagonal right prism with side 20 mm and height 60 mm, when its axis is parallel to the vertical plane and two sides of the base are parallel to vertical plane. (6)

5. A pentagonal pyramid, side of base 35mm and axis 60 mm long, rests with its base on horizontal plane such that one of the edges of the base is perpendicular to vertical plane. A section plane perpendicular to horizontal plane and parallel to vertical plane cuts the pyramid at a distance of 20mm from the corner of the base nearer to the observer. Draw its top and sectional front views. (10)

6. Projection of a casting is as shown. Draw left and right isometric view.



(10)

7. Write short notes on the following based on AUTOCAD (Attempt any **two**) :

(a) Function of fillet and offset commands

(b) Blocks and their creation

(c) Use of layers (5,5)

(100)