

Junior Certificate Examination 2006

Technical Graphics Higher Level Section B (280 marks)

Monday 19 June Morning 9:30 - 12:30

Instructions

- (a) Any four questions to be answered.
- (b) All questions in this section carry equal marks.
- (c) The number of the question must be distinctly marked by the side of each answer.
- (d) Work on **one side** of the paper only.
- (e) Write your examination number on each sheet of paper used.

S61B

$SECTION \ B \ (\text{answer any four questions - all questions carry equal marks})$





5. The figure shows a design for a floor tile. The tile is subject to transformations in the following order: (i) Translation (ii) Central symmetry (iii) Axial symmetry (iv) Rotation clockwise through 90°.

P1, P2, P3 and P4 show the positions of corner P under each of these transformations. Draw the given figure and determine the image of the tile under each of the transformations. R **P1** 23 9 **P3** Р **P2** P4 30 100 40 70

6. The figure shows the design of the base for an electric iron.

The curve **AB** is a parabola with vertex **A**.

The curve **CB** is an identical parabola with vertex **C**.

The curve **DEF** is elliptical.

The curve **DGF** is portion of the same ellipse.

Draw the given design.

Show all constructions clearly.

