DESCRIPTIVE GEOMETRY—2ND CLASS—(VOLUNTARY).

Subjects—Projection of Solids. (Clarke, chapter V.) Description of the most usual solids. Projection of solids in simple positions. Proof that whatever be the data the problem resolves itself into the following: To find the projections of a solid given the plane of one face and the position of an edge lying in that face; solution of this problem and hence: Projection of solids in any position. (Notes.) Projection of right cylinders and cones. (*a*) When the position of axis is given. (*b*) When the inclination of plane of base is given. Projection of helices on right cylinders and cones and hence projection of ordinary screws. Contouring a solid. (Note.)

Section of solids by planes. (Clarke, chapter VI.)

Interpenetration of solids. (Clarke, chapter VII.)

Development of surfaces. (Clarke, chapter VII.)

Tangent planes to surfaces such as spheres, cones, cylinders, surfaces of revolution. (Clarke, chapter VIII.)

Projection of curved surfaces tangent to each other. (Note.)

Determination of shadows. (Clarke, chapter IX.)

To determine which faces of a surface bounded by planes are in shadow and which in light. (Note.)

Isometric projection. (Clarke, chapter XI.)

Perspective projection—Definition and use.

Definition of the following terms: Object, vertex.

Plane of projection—To show that the perspective projection of any point can be obtained from its orthographic projections, and hence to obtain the perspective projection of any object in any position from its orthographic projections. Variation of the method in the special case where there are systems of parallel straight lines. Vanishing point. Comparison of this method with the ordinary method. (Notes.)

Fair Notes—Of such matter as is not contained in text-book.

Plates—The following is a list of the plates:

VIII. Interpenetration of solids.

IX. Shadows.

X. Isometric projection.

XI. Perspective projection.

Exercises—Various problems solved either by the Indice or two-plane method.

Subjects for each examination. December—Projection of solids. March—Section of solids by planes. Interpenetration of solids. Development of surfaces. June—The whole course of Descriptive Geometry.

	Marks.
For work during term	700
For examination—	
December	150
March	150
June	500
Total	1,500