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BASIC SURFACES FOR ENGINEERING

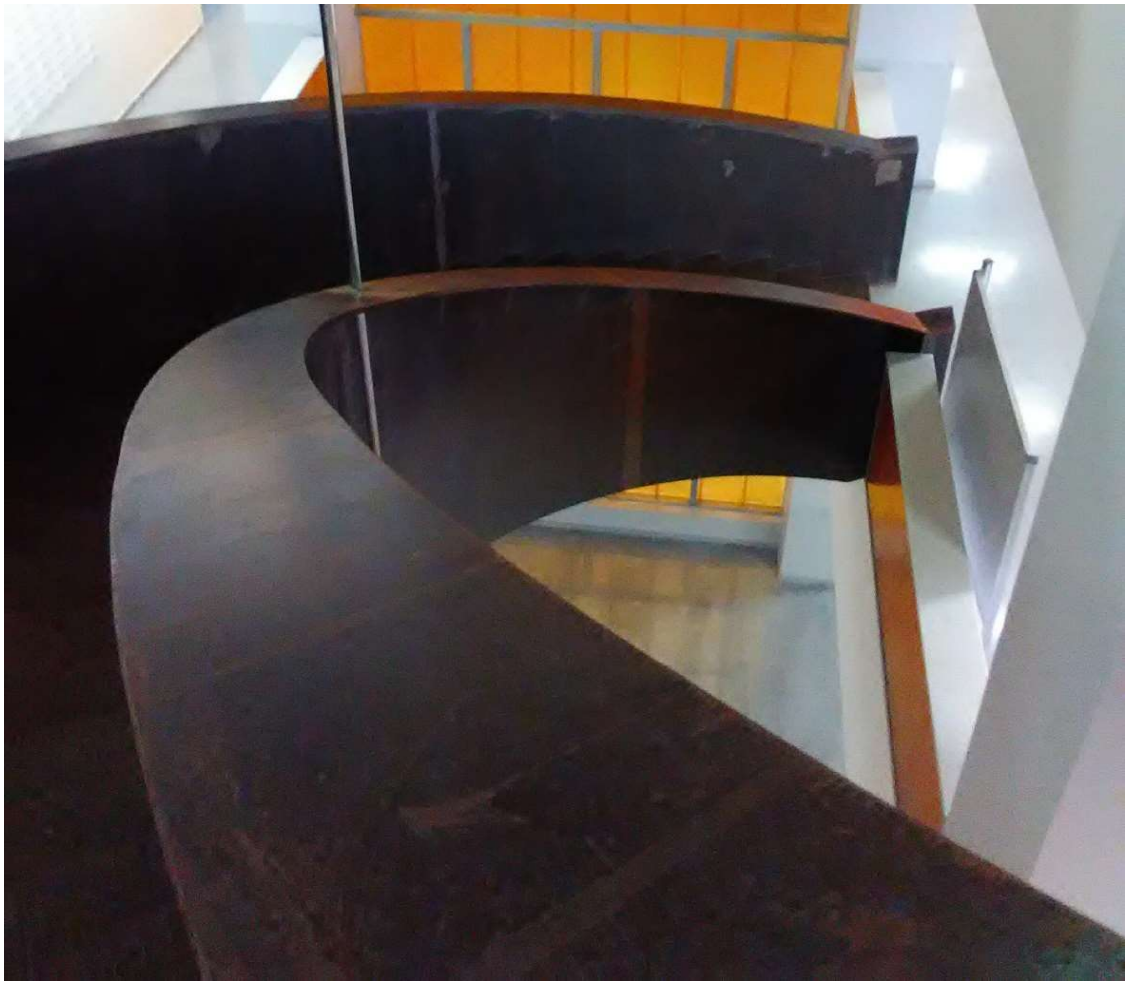

Figure 00. Main stairs of Engineering School of Bilbao II. Picture made by the authors, 2018.

5. Surfaces intersection test

Instructions

The questions presented are multiple choice, with only one correct answer.

The solutions are at the end of the document.

Surfaces intersection test

1. What is the intersection called when all the generatrices of one surface intersect with the other surface?
   a. Bite.
   b. Penetration.
   c. Simple tangential penetration.
   d. Double tangential penetration.

2. The intersection of two surfaces in simple tangential penetration consists of:
   a. One single closed line.
   b. Two independent closed lines.
   c. Two closed lines with one point in common.
   d. Two closed lines with two points in common.

3. The intersection of two biting surfaces consists of:
   a. One single closed line.
   b. Two independent closed lines.
   c. Two closed lines with one point in common.
   d. Two closed lines with two points in common.

4. What geometric shape results in the intersection of two pyramids?
   a. One or two closed polygons.
   b. One or more circumferences.
   c. One or more conical curves.
   d. One or more curved curves.

5. Generally, what geometric shape results in the intersection of two cylinders?
   a. One or two closed polygons.
   b. One or more circumferences.
   c. One or more conical curves.
   d. One or more curved curves.

6. What geometric shape results in the intersection of two spheres?
   a. One or two closed polygons.
   b. One or more circumferences.
   c. One or more conical curves.
   d. One or more curved curves.

7. What geometric shape results in the intersection of a pyramid and a cylinder?
   a. One or two closed polygons.
   b. One or more circumferences.
   c. One or more conical curves.
   d. One or more curved curves.

8. Generally, what geometric shape results in the intersection of a cylinder and a sphere?
   a. One or two closed polygons.
   b. One or more circumferences.
   c. One or more conical curves.
   d. One or more curved curves.

9. The intersection of a prism with another surface is immediate when:
   a. The generatrices of the prism are parallel to the projection plane.
   b. The generatrices of the prism are perpendicular to the projection plane.
   c. The generatrices of the other surface are parallel to the projection plane.
   d. The generatrices of the other surface are perpendicular to the projection plane.

10. What are the limit planes?
   a. The notable planes.
   b. The tangent planes to surfaces.
   c. The planes containing the bases of the surfaces.
   d. The planes that set the zone of the secant planes that cut the two surfaces.

Solutions for surfaces basic concepts testing

1b, 2c, 3a, 4a, 5d, 6b, 7c, 8d, 9b, 10d.