OFFICIAL.

The following Regulations supersede those formerly in force respecting the JOURNAL OF EDUCATION:—

I.—*The* JOURNAL OF EDUCATION *shall hereafter be published semi-annually, in the months of April and October respectively, and shall continue to be the medium of Official Notices in connection with the Department of Education.*

II.—*The* JOURNAL *will be furnished gratuitously, according to law, to each Inspector, Chairman of Commissioners, and Board of Trustees, and will be supplied to other parties wishing it at the rate of ten cents per copy.*

III.—*Each Secretary of Trustees is instructed and required to file and preserve the successive numbers of the* JOURNAL *for the benefit of his fellow Trustees and the Teacher or Teachers of his section, and their successors, and to inform his associates in office and the Teacher or Teachers of its receipt, so soon thereafter as may be convenient.*

EXAMINATION PAPERS,

Set for Candidates for Provincial Licenses.

JULY, 1889.

ACADEMIC LICENSES (Grade A.)

ALGEBRA.

1. Show that the square root of a rational quantity cannot be partly rational and partly a quadratic surd.

2. A crew can row a certain course up stream in 84 minutes: if there were no downward current they could row the same course in 7 minutes less than it takes them to drift down with the stream. How long would they take to row down with the current?

3. Form the equation whose roots are the squares of the roots of the equation $m\,x^2 + n\,x = p$.

4. A person has 20 acquaintances, 12 of whom are relatives. In how many ways may he invite 15 guests from among them so that exactly 8 of these are relatives?

5. Find the sum of the coefficients in the expansion of $(1+x)^a$ when n is a positive integer. Also the sum of the coefficients in the expansion of $(1 - x)^n$.

6. Find the relation between a, b, and c, in order that $a\,x^2 + b\,x + c$ be a perfect square.

7. If x and y are both rational, solve the equation, $x^2 - y^2 - 2\sqrt{xy} = 6 - v\overline{5}$.

GEOMETRY.

1. Draw a tangent to a circle from a given external point by a method other than given in Euclid's text.

2. Find the locus of a point without a square such, that straight lines being drawn from it to the angular points of the square, the angle contained by the two extreme lines is divided into three equal parts by the other two.

3. About a given circle to describe a given triangle, equiangular to a given triangle.

4. To find at what point in a given straight line the angle subtended by the line joining two given points, which are on the same side of the given straight line, is a maximum.

5. Similar polygons may be divided into the same number of similar triangles, having the same ratio to one another which the polygons have; and the polygons are to one another in the duplicate ratio of their homologous sides.

6. Given the base of a triangle and the ratio of the other sides, to find the locus of the vertex.

7. If a straight line stands at right angles to each of two straight lines at the point of their intersection, it must also be at right angles to the plane that passes through them.

SCHOOL SYSTEM AND SCHOOL MANAGEMENT.

1. State fully the law and regulations which determine grants to County Academies.

2. What are the objects for which money may be voted by the School Meeting? State the principles that regulate the assessment of the sum voted.

3. *(a.)* State the ground-work of the educational scheme propounded in "Emile." *(b.)* Discuss the educational theories of Herbert Spencer.

4. As Principal of a Graded School what steps would you take to ascertain the methods employed and the influence exerted by the teachers of the lower departments?

5. Write comprehensive notes on: *(a.) Education both as a science and an art. (b.) Discipline.*

TEACHING.

1. *(a.)* Distinguish between empirical and scientific knowledge. *(b.)* Illustrate as fully as you can the following statement: "Certain truths of mental science seem to be specially fitted to supply principles of education."

2. What light does psychology shed on the order in which the various branches of study should be taken up? What other considerations affect the question?

3. A modern writer on education classifies studies as respects their results into *practical, disciplinary* and *culture-producing.* Group the subjects of our Common School course under these heads.

4. Give notes of a lesson designed to present to a class reading Cæsar and Xenophon a comparative view of the *Oratio Obliqua* in Latin, Greek and English.

5. "The habit of probing children often, either by written or oral examinations, is like digging up the roots of a flower to see how it grows." Is this simile founded on a real analogy? Discuss at length.

PHYSIOLOGY.

1. Give the names, situation and functions of the salivary glands.