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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 a 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, 1892.

ACADEMIC LICENSE (Grade A.)

ALGEBRA.

Any five questions will be considered a full paper.

1. Solve the quadratic:

$$\frac{a - \sqrt{2ax - x^2}}{a + \sqrt{2ax - x^2}} = \frac{x}{a - x}$$

2. Solve completely the cubic equation:

$$\left(x^2 - \frac{x}{2}\right) + \left(x_2 - \frac{x}{2}\right) = 56x - 28.$$

3. The product of three roots of the biquadratic $x^4 - 9x^2 - 14x + 120 = 0$ is -30 , and the sum of three roots is -2 . Find all the roots of this equation.

4. The biquadratic $x^4 + 2x^3 - 35x^2 - 36x + 180 = 0$ has only rational and integral roots: find them.

5. In the cubic $x^3 - 2x^2 - ax - 70 = 0$, the sum of the coefficients of the odd powers of x is equal to the sum of the other coefficients. Solve the equation completely.

6. If $\frac{p^1}{q^1}, \frac{p^2}{q^2}, \frac{p^3}{q^3}$ be three consecutive convergents, show that $(p_3 - p_1)q_2 = (q_3 - q_1)p_2$.

7. Find three proper fractions in Arithmetical Progression whose denominators shall be 6, 9, 18, and whose sum shall be $\frac{23}{18}$.

8. It is 3 to 1 that A speaks the truth, 4 to 1 that B does, and 6 to 1 that C does. Find the probability that an event took place which A and B assert to have happened and which C denies.

GEOMETRY.

1. Give Euclid's definition of Proportion.
2. Similar triangles are to one another in the duplicate ratio of their homologous sides.
3. If a line touching two circles cut another line joining their centres, the segments of the latter will be to each other as the diameters of the circles.
4. If two diagonals of a quadrilateral inscribed in a circle be given, shew that the quadrilateral is greatest when they are at right angles.
5. Planes to which the same straight line is perpendicular are parallel to one another.
6. If a solid angle be contained by three plane angles, any two of them must be together greater than the third.
7. A number of planes have a common line of intersection, what is the locus of the feet of perpendiculars on them from a given point?

SCHOOL SYSTEM AND SCHOOL MANAGEMENT.

[Any five questions count a full paper.]

1. Summarize the changes made in the Education Laws at the last meeting of the Legislature.
2. Summarize the Law (a), as regards moral teaching in the School (b), as regards religious teaching.
3. Give an idea of the manner in which you would organize and carry out a system of gymnastics and military drill in a graded school of which you may be assumed to be principal.
4. Give an idea of the manner in which you would set about organizing a museum for high school purposes, stating reasons briefly for the details of your scheme.
5. Discuss Rousseau's theory of education as illustrated by his "Emile," up to the age of twelve years.
6. State briefly but fully the constitution and powers of the Council of Public Instruction.

TEACHING.

1. Give an idea of the points on which you would lay special stress in the first year's course in Latin, with reasons.
2. What are the points on which you would lay special stress in the teaching of Chemistry in High School, and why?
3. Discuss the reasons, from a psychological point of view, why a person, who has passed through the common schools without mastering English orthography, cannot be expected ever to attain accuracy in spelling.
4. How does negligent inaccurate primary arithmetical operations affect the future mathematical development of the pupil? Explain fully.
5. Give an outline of an oral lesson designed (a), to prevent any member of a junior high school class from forming the habit of using tobacco, and (b), to enable one who has formed the habit to break it off.

PHYSIOLOGY.

[Any seven questions will constitute a full paper.]

1. Indicate by a drawing the general relation of the bones of a lower limb to each other, giving the number and names of those in each part of the limb.
2. State the chemical constitution of blood.
3. Describe briefly, and in order, the glands and their secretions which assist in the assimilation of food during its course in the alimentary canal.