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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 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, 1885.

## ACADEMIC LICENSES (Grade A.)

(Candidates are at liberty, as per syllabus of examination, to write on such *two* of the first three subjects given below as they may choose. No credit will be given to papers on all subjects from the same candidate.)

#### CHEMISTRY.

- 1. What is the constitution of matter according to the atomic theory? Illustrate by reference to oxygen and hydrogen.
- 2. Give a list of the oxides of nitrogen, with their chemical formulæ and composition by weight and volume.
- 3. Describe, as fully as you can, the effects of common salt upon plant life, when used as a fertilizer.
- 4. Mention the principal ammoniac salts, giving their formulæ, and comparing them with the corresponding potassic salts.
- 5. Name and describe the principal substances which constitute the organic matter of plants, dividing them into nitrogenous and non-nitrogenous bodies.
- 6. Write a note on Arsenic, and describe a mode of testing for it.

#### NATURAL PHILOSOPHY.

- 1. Give examples of stable, unstable, and neutral equilibrium.
- 2. Explain the principle of the Screw, and discuss the condition of equilibrium when a weight is supported by a screw. Find what weight will be supported by a power of 10 lbs., when the circumference of the screw is twelve inches, and there are 3 threads to the inch.

- 3. Describe the air-pump.
- What is meant by Specific Gravity? The specific gravity of alcohol being .85, what is that of a solid, soluble in water but not in alcohol, which weighs 346 grains in air, but 210 in alcohol?
- 5. Enumerate completely in two statements the law of reflection of light, and show that both statements are essential to a complete definition.
- 6. Define the terms principal focus, optical centre, and principal axis of a lens. If the chief focal length of a lens is 12 in., how far must I place a luminous object from the lens, in order to obtain an image twice as large every way as the object?

#### FRENCH.

#### Translate into English:

Monsieur Jourdain a raison, madame, de parler de la sorte, et il m'oblige, de vous faire si bien les honneurs de chez lui. Je demeure d'accord avec lui que le repas n'est pas digne de vous. Comme c'est moiqui l'ai ordonné et que je n'ai pas sur cette matière les lumières de nos amis, vous n'avez pas ici un repas fort savant, et vous y trouverez des incongruités de bonne chère, et des barbarismes de bon goût. Si Damis s'en étoit mêlé, tout seroit dans les règles; il y auroit partout de l'élégance et de l'érudition, et il ne manquerait pas de vous exagérer lui-même toutes les pièces du repas qu'il vous donneroit, et de vous faire tomber d'accord de sa haute capacité dans la science des bons morceaux; de vous parler d'un pain de rive à biseau doré, relevé de croîte partout, croquant tendrement sous la dent; d'un vin à sève veloutée, armé d'un vert qui n'est point trop commandant; d'un carré de mounton gourmandé de persil; d'une longe de veau de rivière, longue comme cela, blanche, délicate, et qui, sous les dents, est une vraie pâte d'amandes; de perdrix relevées d'un fumet surprenant; et pour son opéra, d'une soupe à bouillon perlé soutenue d'un jeune gros dindon cantonné de pigeonneaux, et couronné d'oignons blancs mariés avec la chicorée. Mais, pous moi, je vous avoue mon ignorance; et, comme monsieur Jourdain a fort bien dit, je voudrois que le repas fut plus digne de vous être offert.

- 1. Where are adjectives generally placed in French? Write a list of adjectives which precede the substantive.
- 2. How are the possessive pronouns expressed in French when connected with the verb  $to\ be\ t$  Give examples.
- 3. State the rule of the past participle when used with (a) avoir (b) être.
- 4. Write sentences illustrating the uses of que (1) as a relative (2) an interrogative (3) an adverb (4) a conjunction.
- 5. Write the plural of chateau, clou, bijou, bal, perdrix, cheval, gouvernail, and the feminine of faux, blanc, public, bon, cruel, ancien, discret, mon, vieux, jaloux, and doux.
- 6. Write the present subjunctive of vaincre, rire, dechoir, venir, cueillir, and s'en aller.

#### Translate into French:

An officer, a man of merit, presented himself one day before the Emperor Joseph and solicited assistance for his family which was in want. "I have only twenty-four sovereigns with me," said the Emperor to him "here they are." "That is too much," muttered a courtier indiscreetly "twenty-four ducats would be sufficient." The Emperor, who heard him, said: "Have you them." The courtier took them from his purse and presented them to Joseph, who added them to the twenty-four sovereigns and said to the officer: "Thank the gentleman who wishes to divide with me the pleasure of assisting you."