

3. Classify the joints in the human body and give a description of each kind.
4. Describe the mechanism of the nostrils.
5. Give an outline of the anatomy of the brain.
6. Discuss fully the sources of the impurities of the air we breathe.

(Candidates are at liberty, as per Syllabus of Examination, to write on such two of the three first 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 meant by the term Crystal? Describe some of the processes by which crystals may be formed.
2. Carbonic dioxide—its distribution, preparation and properties.
3. Write out the formulæ (1) of the oxides of sulphur (2) of the substances formed when they are brought in contact with water, (3) of the neutral sulphate and bisulphate of Potassium.
4. Describe the galvanic batteries of Smee and Grove.
5. Distinguish between the Ferric and Ferrous Salts.
6. Give the composition of tartar emetic, and give an account of the analogies of the group of elements to which antimony and phosphorus belong.

NATURAL PHILOSOPHY.

1. What are toothed-wheels? Find the equation of equilibrium for the *Jack*, and describe its construction.
2. Define *velocity*, *uniform* and *variable velocity*, acceleration. A point describes a circle with a constant velocity v , and at the same time the centre of the circle moves forward in a straight line with the same velocity. What is the motion of the point?
3. Show what the pressure exerted by a liquid on any part of the surface of the containing vessel depends upon, and explain how to calculate the amount of this pressure when the necessary data are given.
4. Describe experiments proving that the air has weight, and show how the weight of a given volume of air can be approximately ascertained. What is a barometer, and how is it constructed?
5. Explain the formation of images with a plane mirror.
6. State the laws of the Refraction of Light by such substances as Water or Glass, and describe and explain experiments by which they can be demonstrated.

FRENCH.

Translate into English:—

Allons monsieur la révérence. Votre corps droit. Un peu penché sur la cuisse gauche. Les jambes point tant écartées. Vos pieds sur une même ligne. Votre poignet à l'opposé de votre hanche. La pointe de votre épée vis-à-vis de votre épaule. Le bras pas tout-à-fait si étendu. La main gauche à la hauteur de l'œil. L'épaule gauche plus quartée. La tête droite. Le regard assuré. Avancez. Le corps ferme. Touchez-moi l'épée de quarte, et achevez de même. Une, deux. Remettez-vous. Redoublez de pied ferme. Un saut en arrière. Quand vous portez la botte, monsieur, il faut que l'épée parte la première, et que le corps soit bien effacé. Une, deux. Allons, touchez-moi l'épée de tierce, et achevez de même. Avancez. Le corps ferme. Avancez. Partez de là. Une, deux. Remettez-vous. Redoublez. Un saut en arrière. En garde, monsieur, en garde.

Mais vous ne dites pas que je m'engage inégalement chaque jour à recevoir de trop grands témoignages de votre passion. J'ai beau me défendre des choses, vous fatiguez ma résistance, et vous avez une civile opiniâtreté qui me fait venir doucement à tout ce qu'il vous plaît. Les visites fréquentes ont commencé, les déclarations sont venues ensuite, qui, après elles, ont entraîné les sérénades et les cadeaux, que les présents ont suivis. Je me suis opposée à tout cela; mais vous ne vous rebutez point, et, pied à pied, vous gagnez mes résolutions. Pour moi, je ne puis plus répondre de rien; et je crois qu'à la fin vous me ferez venir au mariage, dont je me suis tant éloignée.

1. Name the principal characters introduced in the play and the part taken by each.
2. Illustrate the uses of *en* (1) as a preposition (2) as a pronoun.
3. Distinguish between *il est* and *c'est*, and translate: Love your father for he is good and just; and, love your father for he is a good and just man.

4. Distinguish between *il faut*, *il est nécessaire* and *on doit*. When is *fallor* followed by the subjunctive, when by the infinitive?
5. Give examples of the principal idiomatic uses of the verb *faire*.

Translate into French:—

Henry the Fourth looked upon the good education of youth as a thing on which depends the felicity of kingdoms and peoples. He does not know what model to follow. I speak of what is true. Whatever happens let me know it. One half of men do not think and the other half do not know what to think. I had just dined when he arrived. If the master should happen to scold me, what could I say to excuse myself. He has been hanged for having robbed. I was going to see you, but I met your brother who took me to the country. How many times have I told you so. Was it in the morning or evening? I met your neighbour yesterday. She went away day before yesterday. My exercise is rather difficult, will you be so good as to help me to write it. What is the matter with your brother whom I met last Sunday. When you are ready we will go and take a walk. I wish she would come and see me.

LATIN COMPOSITION.

(A lexicon may be used, but no other book.)

Translate into Latin:—

1. As at Rome two consuls, so at Carthage two kings, were annually appointed.
2. The Senate feared that the consuls, unmindful of their promise, would not return within the appointed time.
3. The enemy will find that it was not owing to me that a battle had not been fought.
4. Demosthenes could not pronounce the first letter of that very art which he was studying.
5. A design was formed of destroying the city, butchering the citizens, and obliterating the Roman name.
6. There were those who believed this to be a trick of the enemy, who were watching a chance to attack and cut to pieces our rear.

GREEK COMPOSITION.

(A lexicon may be used, but no other book.)

Translate into Greek:—

1. As it is always possible for men to be good, so is it their duty to be so.
2. If I were to do this what a tumult there would be!
3. Do not take from the cities the wealth which they possess.
4. Those men surpass us in number, but are inferior to us in courage.
5. Who do you think would obey such a man as you?
6. I tried to show him that he thought himself to be wise, but was not.

ROMAN HISTORY.

1. Give the date of the First Secession of the Plebeians, and narrate the circumstances.
2. *Agrarian Laws*: (1) Statement of facts and principles involved; (2) Explanation of particular measures.
3. Discuss the religion of Ancient Rome, as to (1) its origin and affinities, (2) its nature, (3) its organization.
4. Describe fully the impeachment of Verres and attendant circumstances.
5. Explain the following terms:—*Consul*, *Pro-Consul*, *Dictator*, *Tribune*, *Master of the Horse*, *Pontifex Maximus*, *Lectisternium*.
6. "Certain eminent persons were supposed to have been more or less privy to Cataline's designs." Who were these, and why were they suspected? Discuss the grounds of suspicion.

GREEK HISTORY.

1. Narrate the legend of the Trojan War.
2. Write notes on (a) *the Pelagians*, (b) *the Heracleidæ*, (c) *the Philippiæ*.
3. Show the relations of Croesus and Cyrus the elder to Greek History.
4. Narrate the steps which led to the supremacy of Thebes.
5. Give an outline of the internal history of Athens during the Peloponnesian War.
6. Discuss the Comedies of Aristophanes, with particular reference to their historical value.