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3. Describe fully the various parts of any dicotyledonous flower, and show how the fruit is formed from the flower.

4. What are the seeds of plants? Describe the germination of any seed. Mention any structures, in seeds you are familiar with, which aid in the dispersal of the seed.

5. Give the characters of the flower and inflorescence in any form of the following orders: Cruciferæ, Gramineæ, Compositæ, Liliaceæ, Leguminosæ, Geraniaceæ.

6. State clearly what you understand by a vegetable cell, and show how cells are modified to form different kinds of tissues. What is wood?

7. What is the condition of plants grown in the dark? Explain why they assume that condition.

8. What is starch, and in what form is it found in plants? What purposes does it serve in the life of the plant?

9. What are the various elements required by plants for their healthy growth? From what sources are these elements derived, and how are they taken up by the plant?

Greek.—Optional for Class D and Junior and Senior Civil Service. Time allowed: 3 hours.

## 1. Translate-

(a) Οὐ προςδεξαμένων δὲ αὐτῶν μίαν μὲν ἡμέραν ἐπέσχον, τῆ δ' ὑστεραίᾳ ἀνηγάγοντο μὲν νυκτὸς ἐπ' ὀλίγας ναῦς τοὺς ὁπλίτας πάντας ἐπιβιβάσαντες, πρὸ δὲ τῆς ἔω ὀλίγον ἀπέβαινον τῆς νήσου ἑκατέρωθεν, ἔκ τε τοῦ πελάγους καὶ πρὸς τοῦ λιμένος, ὀκτακόσιοι μάλιστα ὄντες ὁπλῖται, καὶ ἐχώρουν δρόμῳ ἐπὶ τὸ πρῶτον φυλακτήριον τῆς νήσου. ὅδε γὰρ διετετάχατο: ἐν ταύτη μὲν τῆ πρώτη φυλακῆ ὡς τριάκιντα ἦσαν ὁπλῖται, μέσον δὲ καὶ ὁμαλώτατόν τε καὶ περὶ τὸ ὕδωρ οἱ πλεῖστοι αὐτῶν καὶ Ἐπιτάδας ὁ ἄρχων εἶχεν, μέρος δέ τι οὐ πολὺ αὐτὸ τοὔσχατον ἐφύλασσε τῆς νήσου τὸ πρὸς τὴν Πύλον, ὁ ἦν ἔκ τε θαλάσσης ἀπόκρημνον καὶ ἐκ τῆς γῆς ἥκιστα ἐπίμαχον καὶ γάρ τι καὶ ἔρυμα αὐτόθι ἦν παλαιὸν λίθων λογάδην πεποιημένον, δ ἐνόμιζον σφίσιν ἀφέλιμον ἃν εἶναι, εἰ καταλαμβάνοι ἀναχώρησις βιαιοτέρα. οὖτο μὲν τεταγμένοι ἦσαν. (b.) Ἐπεί δὲ ἤκουσεν ὁ ᾿Αστυάγης ὅτι πολέμιοι εἰσιν ἐν τῆ χώρα, ἐξεβοήθει καὶ αὐτὸς πρὸς τὰ ὅρια σὺν

τοις περί αὐτὸν καὶ ὁ υίὸς αὐτοῦ ὡσαύτως σὺν τοις παρατυχοῦσιν ἱππόταις, καὶ τοις ἄλλοις ἐσήμαινε πῶσιν ἐκβοηθεῖν. ώς δὲ εἶδον πολλοὺς ἀνθρώπους τῶν Ασσυρίων συντεταγμένους καὶ τοὺς ἱππέας ἡσυχίαν ἔχοντας, ἔστησαν καὶ οἱ Μῆδοι. ὁ δὲ Κῦρος ὁρῶν ἐκβοηθοῦντας καὶ τοὺς ἄλλους πασσυδί, ἐκβοηθεῖ καὶ αὐτὸς πρῶτον τότε ὅπλα ἐνδύς, οὖποτε οἰόμενος οὖτως ἐπεθύμει αὐτοῖς ἐξοπλίσασθαι μάλα δὲ καλὰ ἦν καὶ ἁρμόττοντα αὐτῷ ἃ ὁ πάππος περὶ τὸ σῶμα ἐπεποίητο. οὖτω δὴ ἐξοπλισάμενος προσήλασε τῷ ἴππῳ. καὶ ὁ ᾿Αστυάγης ἐθαύμασε μὲν τίνος κελεύσαντος

ήκοι, όμως δὲ εἶπεν αὐτῷ μένειν παρ' ἐαυτόν.

(c.) Βάτραχοί ποτε πρέσβεις ἔπεμψαν ἐπὶ τὸν Διά, δεόμενοι βασιλέα αὐτοῖς παρασχεῖν ὁ δε ξύλον εἰς τὴν λίμνην καθήκε. `καὶ οἱ βάτραχοι τὸ μὲν πρῶτον καταπλαγέντες τὸν ψόφον ἔαυτοὺς εἰς τὰ βάθη τῆς λίμνης ἔρριπτον ὖστερον δὲ, ὡς ἀκίνητον ἦν τὸ ξύλον, ἀναδύντες εἰς τοσοῦτον καταφρονήσεως ἦλθον, ὧστε ἐπιβαίνοντας αὐτῷ ἐπικαθέζεσθαι ἀνάξιον δὲ ποιούμενοι τοιοῦτον ἔχειν βασιλέα, ἣκον ἐκ δευτέρου πρὸς τὸν Διά, καὶ αὐτὸν παρεκάλουν άλλάξαι αὐτοῖς τὸν ἄρχοντα: τὸν γὰρ πρῶτον ἔφασαν λίαν εἶναι νωχελῆ. καὶ ὁ Ζεὺς ἀγανακτήσας κατ' αὐτῶν, ὕδραν αὐτοῖς ἐπέπεμψεν, ὑφ' ἡς συλλαμβανόμενοι κατησθιόντο.

2. Translate into Greek-

A child, who was bathing in a river one day, was in danger of being drowned; so, seeing some one passing by, he called to him for help: but the traveller began to find fault with the boy for being rash. The boy, however, said to him, "Well, but help me now, and afterwards find fault with me, when I have been saved."

3. Give the demonstrative pronouns in Greek, with their meanings. Decline fully objects.

4. Give the comparative and superlative of ἀγαθός, ταχύς, εὐδαίμων, πολύς, ἀληθῶς.

5. Give rules for forming the future and perfect active of a Greek verb from the stem.
6. Distinguish the meanings of ὅσος, πόσος, ὅποσος. What other similar sets of correlatives can you give?

7. What are the chief uses of the subjunctive and optative moods respectively in Greek in (a) pprincial, (b) dependent clauses?

Shorthand.—Optional for Senior and Junior Civil Service. Time allowed: 3 hours. Instructions to Supervisors.

1. Inform candidates before the time for taking up this subject that they may use pen or pencil, and ruled or unruled paper, as they please, for taking notes, but that they must transcribe those notes into longhand with pen and ink.

2. Inform candidates that when once you have commenced to dictate you cannot stop until the passage is finished.

3. Dictate the passages at the following rates of speed:—

50 words per minute. (b) 80 (c) 100 Senior  $\begin{pmatrix} (d) & 80 \\ (e) & 120 \\ (f) & 150 \end{pmatrix}$ " "

N.B.—It will be well to practise reading these aloud some time beforehand, looking at a clock, so as to accustom yourself to the speed.

4. Candidates are at liberty to take down the three passages, if they choose. If they do so, all the passages are to be dictated to them before they commence transcribing. If a candidate