

## 14.—GEOMETRY, B.

[Only five questions to be answered. Shortest form of proof preferred, providing every statement is proven by reference to Euclidean propositions.]

1. Similar segments of circles on equal chords are equal to one another
2. Given the base and vertical angle of a triangle, find the locus of its orthocentre.
3. Inscribe a regular pentagon in a given circle.
4. The angle of a regular pentagon is trisected by the straight lines which join it to the opposite vertices.
5. Find a fourth proportional to three given straight lines.
6. Two circles intersect at A and B, and through any point in AB their common chord two chords are drawn, one in each circle; show that their four extremities are concyclic.
7. Given the base of a triangle, and the sum of the squares on the sides forming the vertical angle; find the locus of the vertex.

## GRADE A, (XII.)

## 1.—ENGLISH LANGUAGE, A.

(Only five questions to be answered.)

1. Note the principal changes in the inflection of the verb during the so-called modern English period.
2. Explain fully : *Rhotacism* ; *Ablaut* (Vowel-change) ; *Umlaut* (Vowel-modification).
3. Write a note on the substantive verb in which the roots of several verbs have been and still are represented.
4. Give a character sketch of Coriolanus as depicted by the poet. Or give an epitome of Othello's address before the Duke describing his suit with Desdemona.
5. (a) By whom and under what circumstances were the following spoken :

"The moon of Rome, chaste as the icicle  
That's curdled by the frost from purest snow,  
And hangs on Dian's temple."

"As weeds before  
A vessel under sail, so men obeyed  
And fell before his stem."

"Custom calls me to 't.  
What custom wills, in all things should we do 't."

"My gracious silence, hail,  
Wouldst thou have laughed had I come coffin'd home,  
That weep'st to see me triumph?"

Or (b) Explain : *Honest knaves* ; *sagittary* ; *agnize* ; *perdurable* ; *antre* ; *quillets* ; *leets* and *law days* ; *jesses* ; *unbookish jealousy*.

6. (a) Write notes on the following passages :

"So our virtues  
Lie in the interpretation of the time."

"Matrons flung gloves,  
Ladies and maids their scarfs and handkerchers,  
Upon him as he passed."

"Must I go show them my unbarbed scone."

"The most noble corse that ever herald  
Did follow to his urn."

Or (b) : "The tragedy of Othello is the tragedy of a free and lordly creature taken in the toils and writhing to death." (Dowden). His is "the wild nature of that glowing zone which generates the most furious beasts of prey, and the most deadly poisons, tamed only in appearance by the desire of fame, by foreign laws of honor, and by gentler manners" (Schlegel). Which of these meets your view of Othello's character? Discuss as fully as you can.