tion being 16½ mills on the dollar. The insurance is ⅜ per cent. on ⅔ of the cost. If Jones could have loaned his money at 5 per cent. what monthly rent is he paying for his house ?

7. The expense of constructing a railway is $5,000,000; of which 40 per cent. is borrowed on a mortgage at 6 per cent., and the remainder is held in shares ; what must be the average weekly receipts so as to pay the shareholders 5 per cent., the working expenses being 65 per cent. of the gross receipts?

8. A Montreal merchant owes 5,000 francs in Paris. He buys a draft on London when sterling exchange is at a premium of 9 ; exchange between Paris and London 25.2 francs per £1. What does the draft cost him ?

9. A man borrows $100 from a money-lender and pays it back in 12 monthly instalments of $10 each. These partial payments are deposited in the Savings Bank at 4 per cent. per annum, simple interest. What rate of interest per annum is realized ?

10. A person buys 6 per cent. bonds ; the interest on which is payable yearly and which are to be paid off at par three years after the time of purchase. If he invests his interest when received at 4 per cent. compound interest what should he pay for the Bonds to realize 7 per cent. compound interest on his money ?

11. A farm is mortgaged for $4,500 bearing 7 per cent. interest payable yearly ; the mortgage has 3 years to run. What sum paid down now would be equivalent to reducing the interest on the mortgage to 5 per cent., money being worth 4 per cent. per annum, all interest being compound ?

C.

12. A certain coin is 1/18 of an inch thick and ⅔ of an inch in diameter ; another has to be made of 2½ times the value and twice as thick. What will be its size ?

13. It is required to cover a piece of ground 80 feet square by a pyramidal tent 30 feet in perpendicular height ; find the cost of the requisite quantity of canvas at 15 cts. per square yard.

14. A ball of lead 4 inches in diameter is covered with silver ; find the thickness of the silver in order that (a) the volume of silver may be equal to that of the lead, (b) the surface of silver may be twice that of the lead.

15. A mast is 49 inches in diameter at the bottom and 28 inches at the top, and contains 596.75 cubic feet of wood ; find its height ($\pi = \frac{22}{7}$).

16. The sides of a rectangle are 16 and 12 ; find the distance between the feet of the perpendiculars drawn from opposite vertices to a diagonal.

CLASSICS.

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QUESTIONS ON WORK FOR JUNIOR LEAVING AND PASS MATRICULATION EXAMINATION.

Translate :

Et jam finis erat: . . . Quam das finem, rex magne, laborum?
—Virgil, Æneid, B. 1, 223-240.

1. Parse : jacentes, constitit, defixit, passis, rependens.

2. Write notes on velivolum, sic, meus Æneas, ob Italiam, revocato a sanguine Teucri.

3. Explain the syntax of vertice, lacrimis, oculos, annis, tenerent.

4. Translate and explain :

(a)   Manet alta mente repostum Judicium Paridis, spretæque injuria formæ.

(b)   Mene incepto desis ere victam, Nec posse Italia Teucrorum avertere regem !

(c) Vos et Scyllæam rabiem penitusque sonantes
Acce-tis scopulos; vos et Cyclopia saxa Experti.

Translate :

His ego nec metas . . . nodis fremet horridus ore cruento.
—Virgil, Æneid, B. 1, 268-296.