University of the State of New York.

67TH PRELIMINARY ACADEMIC EXAMINATION.
ARITHMETIC.

TUESDAY, November 20, 1888—Time, 9:30 A. M. to 12:30 P. M., only.

60 *credits, necessary to pass*, 45.

1. Mention two kinds of notation used in Arithmetic......... 2
2. What is meant by the local value of a figure? What is the effect of moving a figure one place to the left; of moving it two places to the left?........ 3
3. In three books there are 930 pages. In the first are 248 pages; and the second has 50 pages less than the third. How many pages has each book ?.. 3
4. If three men can build a wall in 16 days, in what time can 8 men build it ?. 2
5. Write two numbers, one odd and one even, that are divisible by 13 2
6. Find the prime factors of 6699....... 3
7. The product of three numbers is 120. Two of the numbers are $6\frac{2}{3}$ and $3\frac{3}{4}$. What is the other number.... 2
8. Mention the chief differences between a common fraction and a decimal fraction.. 2
9. Multiply $57\frac{14}{15}$ by 6.875. Give the fractional part of the answer in the decimal form, and write the whole answer in words.. 4
10. For what is Troy weight used; Apothecaries weight ?..... 2
11. By what weight is hay estimated; by what weight a silver dollar ?........ 2
12. Write the table for long measure... 1
13. What decimal part of a day is 13 hours and 30 minutes ? 2
14. How much will it cost to carpet a room which is 15 feet wide and 24 feet long with carpet $\frac{3}{4}$ yd. wide, at \$1.25 a linear yard ? 3
15. A bin that holds 50 bushels is 4 feet long and 3 feet wide; how deep is it ?..................................... 3
16. James Dalton buys of Julius Johnson, May 1, 1888, 275 lbs. sugar at $7\frac{1}{2}$ cents; 3 lbs. raisins at $12\frac{1}{2}$ cents; 1 barrel flour at \$5.50; and in payment of the bill gives his note payable at the Commercial Bank in 30 days. Make a bill of the above and receipt it... 4
17. Find the bank discount and proceeds of the note mentioned in question 16, discounted May 1, 1888.................... 3
18. If 15 barrels of flour be sold for what 18 barrels cost how much is the gain per cent. ?............. 2
19. What sum invested in stock at 6 per cent. premium will produce an annual income of \$1,000, the stock paying 8 per cent. annual dividend ?....... 3
20. Three men gain \$980, of which A is to have \$2 as often as B has \$5 and C has \$7. How much is the share of each ?...... 3
21. If a field 30 rods long and 20 rods wide cost \$48, how much will a field 50 rods long and 15 rods wide cost? (Solve by proportion,)... 3
22. The foot of a ladder is 28 feet from the wall of a house and the top of the ladder touches the wall 45 feet from the ground; how long is the ladder ?................................... 3
23. Find the side of a cubical bin holding 91125 cubic inches. 2
24. Give the length of a metre in inches................... 1