

University of the State of New York

73D PRELIMINARY EXAMINATION

ARITHMETIC

TUESDAY, June 10, 1890—Time, 9:15 A. M. to 12:30 P. M., only

100 credits, necessary to pass, 75

1. If the remainder, dividend and quotient be given, how may the divisor be found? Give an example 6
2. 500 bales of cotton weighing 400 pounds each at 6 cts. a pound, were exchanged for nails at 5 cts. a pound; how many kegs of 100 pounds each were given. Solve by cancellation 6
3. If 3 horses eat 3 bushels of oats in 2 days how many horses will eat 20 bushels in 8 days? (Solve by analysis and write analysis in full)..... 6
4. If $43\frac{3}{4}$ yards of carpet cost $\$26\frac{1}{4}$ and $\frac{2}{5}$ of the whole is sold at a gain of $\frac{1}{4}$ on each yard, how much is received for what is sold?.. 6
5. How many paving stones 6 in. by 8 in. will pave a street 270 ft. by 50, and how much will it cost at 9 cents each?..... 6
6. Two telegraph stations are 18 miles, 40 rods, 44 yards apart. If the telegraph poles between them are 8 rods apart how many poles will be needed and how much will they cost at 20 cents apiece?.. 6
7. Write the table for dry measure..... 2
8. George Thomas buys of Timothy Marsh for cash, June 1, 1890, 15 lbs butter at 25 cents; 20 lbs. rice at 8 cents; 6 lbs. raisins at 20 cents. Make a bill of the above and receipt it for Marsh..... 10
9. A certain house will sell for $\$5500$. Is it better for the owner to rent the house for $\$550$ a year, paying taxes $\$100$ and repairs $\$50$ a year, or to sell the property and invest the money at $5\frac{1}{2}\%$?..... 6
10. In what time will $\$1500$ at 6% gain $\$217.50$, simple interest?..... 6
11. How many oranges bought at the rate of 20 for 25 cents must be sold for $\$7$, which includes a gain of 40 per cent?.... 6
12. At what price must 8% stock be bought to produce an income of $3\frac{1}{4}\%$ on the amount invested? 6
13. Find the date of maturity and face of a note at 4 mos. at $4\frac{1}{2}\%$ per cent, dated Dec. 2, 1889, which discounted at bank will give as proceeds $\$11,814$ 6
14. An agent received $\$1610$ with which to buy goods. He pays $\$11$ cartage and receives $2\frac{1}{2}\%$ per cent commission on the amount purchased. Find the amount purchased..... 6
15. A, B & C hired a pasture together for $\$100$. A pastures 300 sheep; B 420 sheep, and C pays $\frac{1}{4}$ the rent. How much of the rent must A and B each pay, and how many sheep does C put in? 6
16. A pole 180 feet high casts a shadow 135 ft. long. Find the distance from the top of the pole to the end of the shadow.... 6
17. Give the name of the unit of weight and the name of the unit of volume in the metric system..... 4