

The University of the State of New York
284TH HIGH SCHOOL EXAMINATION
BUSINESS ARITHMETIC
Tuesday, June 16, 1942 — 9.15 a. m. to 12.15 p. m., only

Fill in the following lines:

Name of pupil.....Name of school.....

Instructions

Do not open this sheet until the signal is given.

All parts of the rapid calculation test are to be worked mentally and the results placed on the question paper. At the end of 15 minutes, work must stop and the sheet used for this part of the examination must then be detached from the rest of the question paper and immediately handed to the examiner.

All work must be done with pen and ink.

RAPID CALCULATION TEST

1-2 a Compute the interest: [5]

\$246 for 3 months at 6 % =
 \$630 for 8 days at $4\frac{1}{2}$ % =
 \$120 for 47 days at 6 % =
 \$1000 for 72 days at 5 % =
 \$345 for 4 months at 4 % =

b Make the extensions: [5]

96 bu. @ $87\frac{1}{2}\phi$ =
 156 lb. @ $3\frac{1}{3}\phi$ =
 2500 ft @ \$84 per M =
 3500 lb. @ \$16 per ton =
 125 cans @ \$6 per C =

c Underline the correct answer for *each* of the following: [5]

$\frac{1}{4}$ % expressed as a decimal is (25, .25, .025, .0025)

When a radio listed at \$60 is sold for \$48, the rate of discount is (80%, 25%, 20%, 2%)

45 divided by 1.5 is (300, 30, $\frac{1}{3}$, $\frac{1}{30}$)

13 mills is equivalent to (\$.13, \$.013, \$.0013, \$.00013)

24 is 25% less than (96, 42, 32, 18)

d Complete the following summary of sales: [5]

Department	Sales (less)	Returns	Net
A	\$ 837	\$ 52	\$785
B	1 210	83	
C	1 741	98	
D	1 923	165	
Totals			

BUSINESS ARITHMETIC

Tuesday, June 16, 1942

Write at top of first page of answer paper (a) name of school where you have studied, (b) number of weeks and recitations a week in business arithmetic.

The minimum time requirement is five recitations a week for a school year.

Answer questions 1-2 and eight of the others. Unless otherwise stated all operations except mental ones are to be shown. Practical business methods must be used in solutions.

1-2 Rapid calculation test on attached sheet. [20]

3 Answer all parts of this question. [10] [Two credits for each correct answer; no partial credit. Answers only are required in this question.]

- a A \$1000 bond, bearing interest at 4%, was purchased for \$800. What was the per cent of return on the investment?
- b A bankrupt's assets total \$1800 and his liabilities total \$12,000. How much will a creditor receive whose claim is \$900?
- c The tax rate in a certain town is \$37.84 per \$1000. What is the tax on a lot that is assessed at \$3500?
- d If a salesman's commission is 8%, how many dollars' worth of goods must he sell in order to earn \$200?
- e Pencils bought at 90¢ a gross were sold at 1¢ each. What per cent of the selling price was gained?

4 A residence valued at \$9000 was insured for \$6000 under a policy with an 80% coinsurance clause. A fire caused a loss of \$3600.

- a How much did the insurance company pay? [6]
- b What per cent of the fire loss was borne by the owner? [2]
- c The 3-year premium rate was 55¢ per \$100. If the insurance was carried for 15 years, what was the total amount of premium paid? [2]

5 A 5% interest-bearing note for \$1800, dated March 4, 1942, showed the following payments on the principal: April 13, \$400; June 6, \$600. What will be the amount due on September 4, 1942? [10]

6 On June 11 Mr Flatt received notice from his bank that his account was overdrawn \$14.38 and that his 90-day note for \$370, with interest at 4%, was due.

- a How much did Mr Flatt owe the bank? [4]
- b On June 11 Mr Flatt went to his bank and discounted at 6% a customer's 2-month note for \$500, dated June 3. What were the net proceeds? [4]
- c If the proceeds were deposited in his account, what was his new bank balance? [2]

7 A dealer pays \$60, less 30% and 10% for a rug. Selling expenses amount to $7\frac{1}{2}\%$ of the selling price. He sells the rug to gain 25% on the selling price, after allowing a discount of 20% on the marked price. What is the marked price? [10]

8 A \$25 War Bond costs \$18.75 and will be redeemed at face value 10 years later.

- a What is the average annual per cent of increase on the investment? [6]
- b How much must a person invest in War Bonds in order to receive \$975 at the end of 10 years? [4]

BUSINESS ARITHMETIC — *concluded*

9 A salesman has offers of employment from two firms. Kolapep offers him a salary of \$100 a month, a commission of 5% on total monthly sales and an additional 2% on monthly sales in excess of \$2000. Popsoda offers him a commission of 8% on the first \$1000 of monthly sales, 10% on the next \$1000 of monthly sales and 12% on all monthly sales in excess of \$2000.

- a If his sales average \$3500 a month, in which position would he receive the greater income? [2]
- b How much more per month would he earn in the better position? [8]

10 A corporation, with outstanding capital stock of \$200,000 (par value \$100 per share), earned a profit of \$43,856 for the year 1941. A dividend of 9% was paid to stockholders. The remaining profit was kept in surplus.

- a How much was kept in surplus? [4]
- b What amount of dividend was received by a stockholder who owned 37 shares of stock? [3]
- c If the stock cost him \$81 per share, what rate of income did he receive on his investment? [3]

11 When shirts costing \$1.25 each were priced at \$1.69, a store sold 96 shirts in a week. By reducing the price to \$1.58, the store sold 160 shirts the following week. What was the per cent of increase or decrease in the weekly profit? [10]

12 A commission merchant sold 143,000 lb. of potatoes for a farmer. He sold 32,000 lb. at \$2.50 per cwt, 39,000 lb. at \$2.25 per cwt and the balance at \$2 per cwt. Selling commission was 5%, storage \$72, trucking \$127 and bagging expense was 15¢ per cwt.

- a What was the average price per cwt received by the commission merchant? [4]
- b What was the amount remitted to the farmer? [6]