BUSINESS ARITHMETIC

Tuesday, January 25, 1938

NAME OF SCHOOL

NAME OF CANDIDATE

Fill above blanks before signal to begin work is given by examiner.

Do not open this sheet till the signal is given.

Examiner will place this sheet closed on desk of each candidate. Candidate will open the sheet and begin work at signal from examiner. All parts of this test are to be worked mentally and the results placed on the sheet. At the end of 15 minutes work must stop and the pages used for this test must then be detached from the rest of the question paper and immediately collected.

All work must be done with pen and ink.

BUSINESS ARITHMETIC RAPID CALCULATION TEST

Tuesday, January 25, 1938 - 9.15 a. m. to 12.15 p. m.

1–2 a Add	[4] <i>b</i>	Make the extensions: [4]
\$ 6.54		48 yd @ $$ 1.12\frac{1}{2} =$
47.96		125 yu (32ψ)
673.52		350 lb @ $$ 1.20$ per C =
7.96		1500 lb @ $$28$ per ton =
678.58		
36.49		[Footing not required]
32.21		
453.52		Compute the interest on each of the fol
68.34	ι	lowing [4]
268.57		10 mig. [1]
42.15		\$160 for 30 days at $1\frac{1}{2}\%$ =
676.17		\$270 for 4 months at 2 $\%$ =
28.73		\$450 for 80 days at $4\frac{1}{2}\%$ =
745.29		\$1200 for 25 days at 6% —
10.70		$\frac{1200}{101}$ $\frac{125}{25}$ $\frac{13}{10}$ $\frac{125}{25}$ $\frac{13}{10}$ $\frac{125}{10}$ 1
		[Footing not required]
\$.		

d Place answers in proper columns: [6]

Marked price	Selling price	Cost	Rate of gain on selling price	Rate of gain on cost	Rate of discount on marked price
\$80	\$60	\$50		• • • • • • • • •	
\$20	\$18	\$12	•••,••••	•••••	

e The number of articles that can be bought for: [2]
\$18 at 33¹/₃\$ each =
\$24 at 25 \$\$\$\$\$\$\$\$\$ each =

The University of the State of New York

271st High School Examination

BUSINESS ARITHMETIC

Tuesday, January 25, 1938 – 9.15 a. m. to 12.15 p. m., only

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] [Deduct 2 credits for each incorrect answer. Answers only are required in this question.]

- a If the tax rate is \$21 on \$1000, what is the rate, expressed in mills, on \$1?
- b When strawberries sell for \$3.80 a crate, which is better for the agent, a commission of 5% or a commission of 15 cents a crate?
- c A clerk saves 15% of his salary. If he earns \$200 a month, in how many years can he pay for a house and lot costing \$5400? [Disregard interest.]
- d A pupil received the following grades: typewriting 75%, business arithmetic 81%, English 92%, drawing 83%.
 What per cent must he receive in shorthand in order that he may have an average of 85%?
- e Ladies' hats costing \$2.40 were sold for \$6. If hats of the same grade cost \$3.20 today, at what price should they be sold to make the same rate of profit on the selling price?

4 George Allen owned a building used for store purposes, valued at \$18,000, and carried a stock of goods inventoried at \$5250. He insured the building for 80% of its value at \$1.65 per \$100 for three years and the stock for the inventoried value at \$1.20 per \$100 for one year.

- a Find the premium on the building. [4]
- b Find the premium on the stock. [4]
- c Find the total yearly cost of insurance. [2]

BUSINESS ARITHMETIC — continued

5 On December 1, A. B. Browne's bank statement showed a balance of \$1245.27. His checkbook balance on that date was \$1089.54. The following checks were outstanding: \$125.10, \$59.05, \$118.08. Comparing the statement with the checkbook, Browne discovered that the following items had not been recorded in the checkbook: a service charge of \$1, a note for \$145.50 paid by the bank and charged to his account.

- a Reconcile the balances. [8]
- *b* Indicate clearly on your reconciliation statement the amount that represents the correct checkbook balance. [2]

6 A commission merchant received from a grower in Florida a carload of lettuce to be sold on commission. The car contained 670 crates and the shipping weight was 16,650 pounds. The freight was \$1.30 per 100 pounds and the charge for icing was \$63. The commission merchant sold 250 crates at \$1.80, 220 crates at \$1.70, and the remainder at \$1.24 a crate. After deducting 5% commission and all charges, the commission merchant remitted the proceeds to the grower.

- a What amount did the grower receive? [8]
- b What was the average price per crate at which the agent sold the consignment? [2]

7 An electric refrigerator is billed to a dealer at \$220, less 25%. The dealer's overhead expenses amount to 25% of the sales. At what price must he sell the refrigerator to gain 15% on the selling price? [10]

8 The employees of the Bedell Foundry Company are paid weekly on the basis of a 40-hour week with time and a half for overtime. During the month of November, 1937, George Mann worked 44 hours the first week, 36 hours the second week, 48 hours the third week, and 40 hours the fourth week. His regular rate of pay is 67 cents an hour.

- a Find Mann's total wages for the four weeks. [6]
- b The company deducted 1% from Mann's wages as his contribution to the Social Security fund. What was the net amount paid him for the four weeks? [2]
- c The Social Security Act requires the employer to deduct 1% from the employees' wages and to make an equal contribution to the fund. The total pay roll for the four weeks was \$20,000; what amount was paid to the Federal Government? [2]

BUSINESS ARITHMETIC — concluded

9 A firm had bills amounting to \$1275.50 to pay on January 5. Their checkbook balance was \$1020.30. To raise additional funds, the firm discounted on January 4, 1938, Harry Brown's 60-day interest-bearing note for \$500, dated December 20, 1937.

- a Find the proceeds of the note. [8]
- b What was the firm's balance on January 5, after the bills had been paid? [2]

10 A savings bank pays interest semiannually on deposits at the rate of $2\frac{1}{2}\%$ per annum. Interest is credited to the depositors' accounts on January 1 and July 1. On July 1, 1936, Bert Foster deposited \$500. He withdrew \$150 on July 1, 1937. How much did Foster have on deposit on January 1, 1938? [10]

11 David Baker owned 60 shares of State Electric stock. He authorized his broker to sell the stock at $108\frac{1}{2}$ and buy Arctic \$1000 bonds at 98. The brokerage for selling the stock was \$7.50 and for buying the bonds \$2.50 for each bond.

- *a* What amount was available for the purchase of the bonds? [5]
- b How many bonds were purchased? [2]
- c How much money was left to Baker's credit? [3]

12 If a charge of 6ϕ a barrel for storage was made for the first 10 days and 2ϕ a barrel for each succeeding 10 days or fraction thereof, find the total amount paid for storage on the following: [10]

StoredWithdrawnOctober2, 1937125 barrelsOctober20, 1937150 barrelsOctober16, 193750 barrelsDecember18, 1937125 barrelsDecember9, 1937100 barrelsDecember100 barrels