COMMERCIAL ARITHMETIC

Tuesday, August 21, 1934

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. Parts above the heavy line are to be worked mentally and the results placed on the sheet. Parts below the heavy line are to be worked out in full and all work shown in the spaces provided. 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.

COMMERCIAL ARITHMETIC RAPID CALCULATION TEST

Tuesday, August 21, 1934 — 8.30 to 11.30 a. m.

1–2 *a* Add   [4]

67352
46506
32145
9876
12345
70684
3291
68743
196
64208
63712
57993
68876
14395
28674
93787
12879
76592
_____

b Make the extensions: [4]

45 doz.   @ 1.16\frac{2}{3}$ =

824 bu.   @   1.12$\frac{1}{2}$ =

125 gal. @   .36 =

720 yd   @   1.33$\frac{1}{3}$ =

[Footing not required]

c Compute the interest on *each* of the following: [4]

$ 840 for 20 days at 4$\frac{1}{2}$% =

1260 for 72 days at 3 % =

3570 for 54 days at 6 % =

980 for 90 days at 4 % =

[Footing not required]

d Subtract   [2]

bu.	pk	qt	pt
3	2	1	0
1	3	3	1

Show all work for *e* and *f* on this sheet in the spaces provided.

e Multiply, using the four-step method: [3]

916$\frac{2}{3}$
5$\frac{1}{7}$
_____

f Divide   [3]

46.23)$\overline{3.176001}$

COMMERCIAL ARITHMETIC

Tuesday, August 21, 1934 — 8.30 to 11.30 a. m., only

Write at top of first page of answer paper (*a*) **names of schools where you have studied,** (*b*) **number of weeks and recitations a week in commercial arithmetic previous to entering summer high school,** (*c*) **number of recitations in this subject attended in summer high school of 1934.**

The minimum time requirement previous to entering summer high school is five recitations a week for a school year.

For those pupils who have met the time requirement previous to entering summer high school the minimum passing mark is 65 credits; for all others 75 credits.

For admission to this examination attendance on at least 30 recitations in this subject in a registered summer high school in 1934 is required.

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 What single rate of discount is equivalent to successive discounts of 25%, 20% and 10%?

b The tax rate in a certain village is .03456; express this as rate per thousand dollars.

c A man sold a house for $5400, thereby sustaining a loss of $16\frac{2}{3}\%$ on the cost; what was the cost of the house?

d A boy had a savings account of $300, on which interest was compounded semiannually. If he received $3.75 at the end of the first interest period, what was the annual interest rate?

e A man insures his house worth $20,000 at 80% of its value. If the rate is 50 cents per $100, what is the amount of the premium?

4 The Standard Parts Company has a plot of ground 132 feet long by 84 feet wide, which it has decided to use as a parking place for the automobiles of its employees. This space is to be inclosed by a woven-wire climb-proof fence fastened to posts set 12 feet apart. There is to be one entrance 12 feet wide where a gate is to be placed. Extending entirely around the inclosure above the fence and gate are to be placed two strands of barbed wire. Posts will cost 35 cents each and woven wire $1.15 a foot; an 80-rod spool of barbed wire costs $4 and the gate costs $10.50.

Find the cost of *each* of the following materials used in inclosing the parking place: posts [3], woven wire [3], barbed wire actually used [3]. Find the total cost of the materials [1].

5 A. M. Stone discounted the following note at the bank on August 21, 1934:

$4900 00/100   Albany, N. Y., June 1, 1934

Three months after date I promise to pay to the order of .... A. M. Stone .... Forty-nine Hundred and 00/100 .... Dollars. Value received.

James Maloney

a Find the amount that the bank received for discounting the note. [8]

b Find the amount that A. M. Stone received. [2]

6 A salesman receives $75 a month salary and 5% commission on all sales and an additional $\frac{1}{2}\%$ on sales in excess of $3000 in any single month. His sales in June were $2800 and in July $3450.

a Find his total commission. [8]

b Find the total amount of money received by the salesman for the two months. [2]

7 On August 1, Graham & Wilkins received from the bank their monthly statement together with canceled checks. According to the statement, the bank balance was $2628. The checkbook balance was $1740.13. The following checks were outstanding: $324.13, $580.72, $49.70. The statement showed that the following items, which were not recorded in the check book, had been paid: a note for $56.04, a canceled check for $10 and tax on checks amounting to 64 cents.

a Reconcile the balances. [8]

b What is the correct check-book balance? [2]

8 A merchant bought 20 suits for $720, less 25%. Find the price he must mark each suit to make a profit of 20% on the selling price after allowing an advertised discount of 10% on the marked price. [10]

[OVER]

9 Edward Brown, Samuel Jones and Frank Wheeler formed a partnership. Brown invested $12,000, Jones $10,000 and Wheeler his services. At the end of the year, the books showed a profit on sales of $12,483, other income $690 and expenses $3780. The net profit was apportioned as follows: Wheeler $1200 for services and Brown and Jones each 15% on their investments as interest on capital. The remainder of the profits was divided equally among the three partners. Find the amount of each partner's total income from the business. [10]

10 R. A. Litchfield, as head of a family, submitted the following facts on his income-tax blank:

His income consisted of salary $12,000, commissions $3725, interest on bank deposits and notes $1246, profit from sale of stocks and bonds $2450. He claimed the following deductions: interest on mortgage $325, taxes $285, charitable contributions $560.

Find the amount of his normal income tax if he is allowed an exemption of $2500 as a married man and $400 each for two minor children, the rate being 2% on the first $10,000 and 4% on the remainder. [10]

11 Find the total cost of the following: 375 pineapples @ $9.75 a hundred; 4 bags of coffee, each containing 50 pounds, @ $23\frac{1}{2}$ cents a pound; 4 crates of eggs, each containing 30 dozen, @ 29 cents a dozen; 64 bags of sugar, each containing 25 pounds, @ $4\frac{3}{4}$ cents a pound; 3 cases of peas, each containing 2 dozen cans, @ $1.75 a dozen; 2 chests of tea, each containing 95 pounds, @ $33\frac{1}{3}$ cents a pound; 75 packages of paper bags, each containing 50 bags, @ $3 per thousand. [This is a test for accuracy; no partial credit will be given.] [10]