The University of the State of New York

317TH HIGH SCHOOL EXAMINATION

BUSINESS ARITHMETIC

Tuesday, January 20, 1953 — 9.15 a. m. to 12.15 p. m., only

Fill in the following lines:

Name of pupil..Name of school..

Instructions for Part I

Do not open this sheet until the signal is given.

All parts of the rapid calculation test are to be worked mentally and the *answers only* 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 answers must be written with pen and ink.

Scrap paper may not be used, nor may computations be made on the question paper.

RAPID CALCULATION TEST

1–2 *a* Make the extensions: [5]

480 gallons at 37½¢ per gallon = $......................

650 pounds at $4 per cwt. = $......................

25 bushels at 88¢ per bushel = $......................

15 feet at 80¢ per yard = $......................

140 bushels at $2.50 per bushel = $......................

b Compute the interest: [5]

$440 for 60 days at 3% = $......................

$720 for 2 months at 2% = $......................

$90 for 320 days at 6% = $......................

$1200 for 30 days at 7% = $......................

$8400 for 6 days at 1½% = $......................

c Complete each of the following statements: [5]

At 25¢ each, we can buy .... articles for $16.

3721.6 divided by 1000 is ....

29.0449 expressed to the *nearest hundredth* is ....

250% of 24 is ....

96 is 33⅓% greater than ....

d Complete the following table of piecework done in a factory. [No partial credit.] [5]

Workman	Pieces Produced		Pieces Rejected	Pieces Accepted
Baldwin	846	(less)	19	827
Ackert	921		34	
Dietel	905		12	
Totals				

BUSINESS ARITHMETIC

Tuesday, January 20, 1953

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 time requirement is four or five recitations a week for a school year.

Answer questions 1–2 in Part I, four questions from Part II, four questions from Part III and four questions from Part IV. Unless otherwise stated, all operations except mental ones are to be shown written in ink. Practical business methods must be used in solutions.

Part I, 1–2 Rapid calculation test on attached sheet. [20]

Part II

Answer any four questions from this part.

3 Answer all parts of this question. [Two credits for each correct answer; no partial credit. ALL WORK MUST BE SHOWN.] [10]

 a A 75-day promissory note was dated October 10. What was the due date of this note?

 b In preparing a set of plans, an architect used a scale of $\frac{1}{8}$ inch = 1 foot. What would be the actual length of a wall which is represented on the plans by $2\frac{3}{4}$ inches?

 c Carter insured his furniture for 5 years for $7500. The rate for the entire five-year policy was 72¢ per $100. What was the average annual cost of this policy to Carter?

 d Hilton can buy a radio for $85 cash or on the installment plan by paying $50 down and making 8 equal payments of $5.65 each. By what per cent does the installment price exceed the cash price?

 e Kerr works on a 40-hour-per-week basis with time-and-a-half for overtime. Last week he worked 45 hours. His regular hourly pay rate was $1.40. What amount did Kerr earn last week?

4 Answer all parts of this question. [This is an accuracy test. One credit for each correct answer; no partial credit; no credit allowed unless work is shown. Wherever necessary, reduce the answer to simplest form.] [10]

 a Add 29.675; 3.008; 116.2; 24.44

 b Subtract 177.846 from 209.97

 c Divide 401.76 by 37.2

 d Multiply 827.1 by 3.04

 e Using the four-step process, multiply $36\frac{1}{4}$ by $9\frac{1}{9}$.

 f Add $5\frac{6}{7}$; $7\frac{1}{4}$; $16\frac{1}{2}$; $3\frac{3}{4}$

 g Divide $86\frac{1}{4}$ by $1\frac{7}{8}$

 h Subtract $6\frac{4}{5}$ from $19\frac{2}{3}$

 i Express .384 as a common fraction in lowest terms.

 j Express $\frac{7}{15}$ as a decimal correct to the *nearest thousandth.*

5 Wilkins, Thomas and Temple are members of a partnership, with investments of $36,000, $27,000 and $18,000 respectively. Net profits are to be shared in proportion to the partners' investments. In 1952, the firm's net sales were $37,560. The cost of the goods sold that year was $13,482. Operating expenses for the year amounted to $8994. What amount did each partner receive as his share of the net profit for 1952? [10]*

6 Flynn can buy some showcases for his store from the Empire Equipment Company, an out-of-town firm, for $3600, less $33\frac{1}{3}$% and 10%. In addition, Flynn will need to pay freight, trucking and installation charges of $126. The Merchants' Display Company, a local firm, offers him showcases of a similar quality for $3800 less 30% and 15%, with no extra charge for delivery and installation. How much money would Flynn save by taking the better of these two offers? [10]*

7 Emmett, a shoe merchant, bought shoes at $105.60 per dozen pairs, less 25% discount. His overhead expenses average 28% of sales. At what price should he sell *each pair* of shoes in order to make a net profit of 12% of the selling price? [10]*

Part III
Answer any four questions from this part.

8 Tuttle, a salesman, uses a car owned by his employer while calling on customers, and works on a 5-day-per-week basis. At the start of a recent four-week period, the speedometer of the car Tuttle uses read 21,487.6 miles. At the close of the same four-week period, the speedometer reading was 23,743.1 miles. What was the average number of miles per day which Tuttle traveled during that period, to the *nearest tenth of a mile?* [6]*

9 The Sanford Company went into bankruptcy owing the following creditors:

William Reed, Inc.	$1729.00
Henry Stevenson	1824.72
Tucker Brothers	4369.40
Folsom and Company	1176.88

The net cash distributed to these creditors was $3367. What amount of money was paid to William Reed, Inc.? [6]*

10 Edwards, a salesman, is paid a salary of $150 per month and commissions as follows:

10% on all sales in excess of $1000 per month

An additional commission of 2% on all sales in excess of $1500 per month

Last month Edwards' sales amounted to $1850. What were Edwards' total earnings for that month? [6]*

11 On September 16, Soule, a furniture dealer, bought 36 desks at $85 each and 28 tables at $62.50 each. The terms of the invoice were 5/10, 2/30, N/60. What amount of money would Soule pay on October 13 in full settlement of this invoice? [6]*

12 A refrigerator cost $680 when new. Its trade-in value 4 years later was $345. What was the average annual per cent of depreciation on this refrigerator, to the *nearest tenth of a per cent?* [6]*

Part IV
Answer any four questions from this part.

13 A commission merchant bought goods for Wright for $875 and charged him 6% commission on this purchase. Freight, storage and other expenses amounted to $29.75. What total cost did Wright pay to obtain these goods? [4]*

14 Long bought stock for $150 per share. This price included brokerage and other expenses. The stock paid an annual dividend of 9% on a par value of $100. What actual per cent of return did Long receive on his investment? [4]*

15 Graves paid a real estate tax of $202.98 on his house, which had an assessed valuation of $6800. What was the tax rate per $1000 which Graves paid on his house? [4]*

16 Russell's New York State income tax return for a certain year showed a net taxable income, after all deductions for exemptions had been made, of $2986. This income was subject to a tax of 2% on the first $1000 and 3% on the next $2000 or any fraction thereof. What was the total amount of Russell's New York State income tax for that year? [4]*

17 In 1952, the population of the village of Randall, was 1978. This was a decrease of 8% from the 1951 population. What was the 1951 population of Randall? [4]*

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* [*To the teacher:* One half the number of credits should be deducted for each different error in method. No credit should be allowed for a solution that contains an error in method and an error in computation.]