The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

BUSINESS ARITHMETIC

Tuesday, June 16, 1970 — 1:15 to 4:15 p.m., only

Instructions for Part I — Mental Calculation Test

Do not open this sheet until the signal is given.

All questions on Part I are to be worked mentally and the *answers only* placed on the answer sheet on page 3. At the end of 15 minutes, work must stop and the answer sheet used for this part of the examination must then be immediately handed to the examiner.

The answer sheet for this part of the test is page 3, which is perforated. When the signal is given, fold page 3 along the perforation and then, slowly and carefully, tear it off. Then complete the rest of the heading of your answer sheet.

Do not begin work on the test until your teacher tells you to do so.

All answers must be written with pen and ink.

Part I
MENTAL CALCULATION TEST

Directions (1–20): Write the correct answer to *each* of the following in the space provided on the separate answer sheet. No written computations are allowed. [20]

1 Add: 24
       161
       42⅜
       15

2 A partner received 37½% of the year's profits of $44,000. What is his share of this net profit? ($1,650; $5,500; $16,500; $27,500)

3 What number is 25% more than 120?

4 What is the cost of 4,500 pounds at $24 per ton?

5 Subtract: 3,871
            986

6 What is ⅒% of $1,000?

7 What is the cost of 2 dozen oranges at the rate of 2 oranges for 15¢?

8 Add: 81; 18; 32; 6

9 Express 8⅓% as a fraction.

10 If a sales tax of 2% is added to an article costing $21.50, what is the total cost?

11 Write in figures, one hundred ten thousand eleven.

12 At 75¢ a pound, how many pounds of candy can be bought for $30?

13 An article listed at $24 is sold for $20. What is the percent of discount?

14 What is the exact number of days between October 27 and December 24?

15 Which of the following, which might appear on an invoice, represents the greatest number? (gross, C, dozen, M)

Directions (16–20): What is the interest on *each* of the following?

16 $150 for 30 days at 6%

17 $6,000 for 15 days at 6%

18 $1,000 for 120 days at 6%

19 $900 for 60 days at 8%

20 $400 for 60 days at 9%

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ANSWER SHEET

Pupil..

Part I — Mental Calculation Test

Answer all questions in this part.   Write only the answers in the spaces below.   [20]

1...............   13...............

2...............   14...............

3...............   15...............

4...............   16...............

5...............   17...............

6...............   18...............

7...............   19...............

8...............   20...............

9...............

10...............

11...............

12...............

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The answers to the questions on the following parts of this examination are to be written in the separate answer booklet. Now complete the heading of your answer booklet. When you have finished the heading, you may begin the examination immediately.

Part II

Answer all questions in this part. Scrap paper may be used. Write only your answers in the separate answer booklet. [40]

1 From the sum of $127.68; $145.37; $241.32 and $479.81 subtract $165.49.

2 William Waldo received a bank statement on August 15. He found that he had failed to record a deposit of $123.80 in his checkbook, which showed a balance of $359.68 on that date. What was his correct checkbook balance?

3 In pricing its merchandise, a store uses the code word " BLACKSMITH " for the numbers 1–0, with an X for repeating numbers. What is the gross profit on a coat that sells for $29.99 and bears the code *LXTS*?

4 Divide $12\frac{1}{4}$ by $3\frac{1}{2}$ and express your answer in *simplest form.*

5 An invoice of goods dated May 5 amounts to $840 with terms of $\frac{2}{15}$, N/60. What amount of money will be needed to pay this invoice on May 15?

6 Subtract 15 hours and 47 minutes from 92 hours and 16 minutes.

7 In 1968, Mr. Kane received $854 in stock dividends. In 1969, he received $725.90 in stock dividends. What was the percent of decrease in stock dividends?

8 What is the due date of a 90-day note dated March 26?

9 What is the interest on $1,200 for 96 days at $7\frac{1}{2}\%$?

10 A high school senior class wishes to raise money by selling magazines. A magazine company offers the opportunity to sell magazines at 40% commission. How many dollars worth of subscriptions must the class sell in order to earn a total commission of $3,600?

11 Wilson is able to sell skis for $54 which originally cost him $36. What is his percent of gross profit, based on the selling price?

12 What amount of money will be deducted for FICA (Social Security) contributions from a salary of $138 at the current rate of 4.8%?

13 Baker, a salesman in a record shop, was paid a salary of $400 per month, plus a 5% commission on all sales. Last month his total sales amounted to $2,200. What were his total earnings for the month?

14 Mr. Jones earns 54 cents for each part he finishes at work. How much did he earn during a week when he completed the following parts: 40; 63; 57; 42; 58?

15 The amount of average annual depreciation on an office desk is $15.00. If the original cost of this desk was $125, what is the average annual percent of depreciation?

16 Three partners — Alton, Birch, and Castor — invested $4,000, $5,000, and $11,000, respectively, in a retail hardware store. The net profit for a recent year was $15,000. If profits are to be shared in proportion to each man's investment, what amount of money should Birch receive?

17 Robert Novack deposited $400 on April 1, 1969, in a bank that pays 5% interest compounded quarterly. How much did Mr. Novack have on deposit on October 1, 1969, if he made no additional deposits or withdrawals?

18 Jones buys a used car for a total cost of $1,650. If Jones makes a down payment of $150 and pays the balance in equal monthly installments of $62.50, how many months will it take him to pay the remaining balance?

19 Dawson's investments are currently earning 8% interest a year. If this interest rate continues, what amount of money must he invest in order to receive an $1,800 a year income from interest?

20 [Write the *number* preceding the correct answer.]
Felt's home was assessed at $7,900 and the school tax rate was $32.50 per $1,000 of assessed valuation. To find the amount of his school tax bill, Felt would 🖝
1 multiply 7.9 by $32.50
2 divide 7.9 by $32.50
3 multiply $7,900 by $32.50
4 divide $7,900 by $32.50

Part III

This part consists of five groups of questions. Choose four of these five groups. Be sure to answer all questions in each group chosen. Use scrap paper for your work. Write only your answers on the separate answer sheet. [16]

Group 1

Directions (21–22): Base your answers to questions 21 and 22 on the information below:

The list price of a hot water heater is $115 less 20% and 10%.

21 What is the invoice price of this hot water heater?

22 What is the single discount equivalent of the trade discount series?

Group 2

Directions (23–24): Base your answers to questions 23 and 24 on the information below.

On June 9, Mr. Casey discounted at the bank a customer's 90-day, 6% promissory note for $840, dated April 30.

23 For how many days did the bank charge discount?

24 If Mr. Casey had held the note until maturity, how much would he have received?

Group 3

Directions (25–26): Base your answers to questions 25 and 26 on the information below.

Lee, a jeweler, offers a watch on the installment plan for $6.50 down and 52 equal regular weekly payments of $1.25 each. Oliver, another jeweler, offers a similar watch on the installment plan for a total cost of $74.

25 What is the installment price of the watch offered by Lee?

26 If Oliver requires a 10% down payment of the total cost and the balance to be paid in 12 equal regular monthly payments, what will be the amount of each monthly payment?
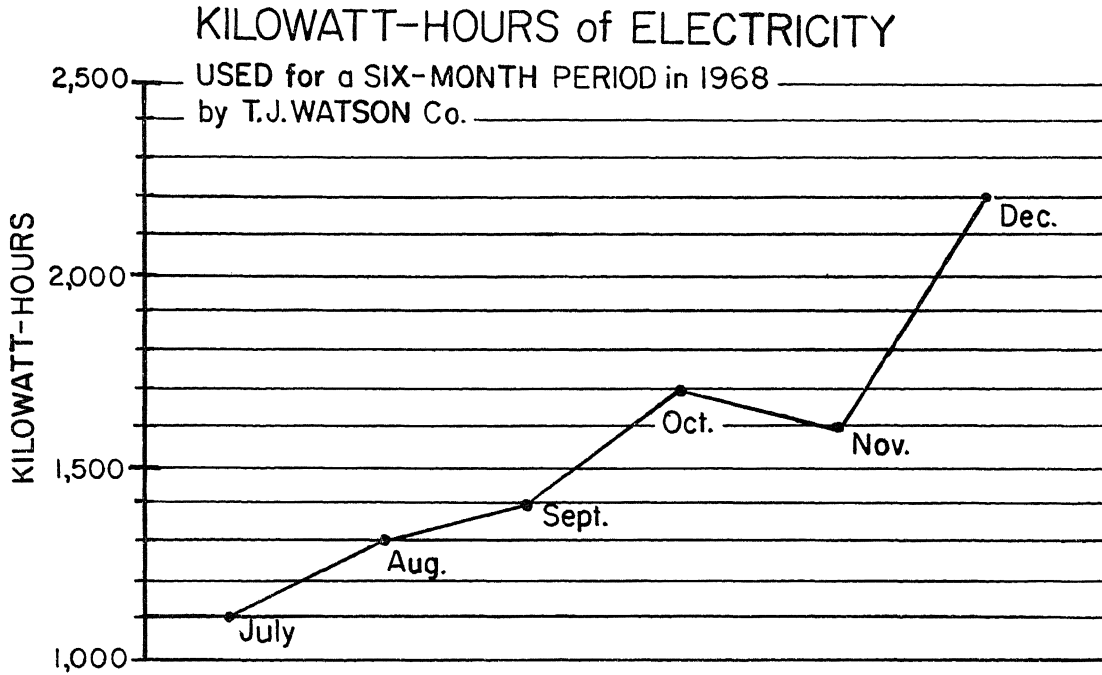
Group 4

Directions (27–28): Base your answers to questions 27 and 28 on the information below.

A one-year fire insurance policy costs $60. A three-year policy can be obtained for 2.7 times the annual rate, and a five-year policy is available at 4.4 times the annual rate.

27 What amount of money is saved by purchasing a five-year policy instead of five individual one-year policies?

28 What percent is saved by purchasing a three-year policy instead of three individual one-year policies?

Group 5

Directions (29–30): Base your answers to questions 29 and 30 on the graph below.

KILOWATT-HOURS of ELECTRICITY USED for a SIX-MONTH PERIOD in 1968 by T.J. WATSON Co.

29 What was the average monthly number of kilowatt-hours used by the Watson Company for the six-month period?

30 If the price per kilowatt-hour is $.0375, what was the Watson Company's electric bill for the month of December?

Part IV

Answer any four of the five questions in this part. All work must be shown.   [24]

31 George Logan had a checkbook balance of $519.71 and a bank statement balance of $529.60. There was a service charge of $1.25 reported on the bank statement. Outstanding checks were $21.18, $35.10, and $10.29; and a deposit of $55.43 did not reach the bank in time to appear on the statement. Prepare a bank reconciliation statement and indicate the correct checkbook balance.

32 Bailey worked 7 consecutive days, 8 hours per day, from Monday of one week through Sunday. If his regular pay rate is $2.80 per hour and the firm pays time and one-half for all work done on Saturdays and double time for all work done on Sundays, what was the amount of Bailey's gross earnings for those 7 days?

33 Masters can buy a refrigerator for $540 cash or on the installment plan by paying $90 down, with 18 equal monthly payments of $32 each. If Masters decides to pay cash, he will need to borrow the money from a credit union at a total cost of $65 for interest and fees. What amount of money will Masters save by choosing the less expensive of these two purchase plans?

34 Gebert's telephone rate is $5.50 per month, plus 10% federal tax. This entitles him to a maximum of 75 local calls. For each additional local call there is a charge of $.05, plus 10% tax. If Gebert made 110 local calls last month, what was the amount of his telephone bill?

35 Wickham bought 25 shares of stock in the Allied Electronics Corporation at 98¾ per share. Brokerage fees and other expenses in connection with this purchase totaled $19.35. Three months later, he sold the entire 25 shares at 101½ per share. Brokerage fees and taxes in connection with the sale totaled $31.17. What was Wickham's gain from buying and selling the stock?

FOR TEACHERS ONLY

BA

SCORING KEY

BUSINESS ARITHMETIC

Tuesday, June 16, 1970 — 1:15 to 4:15 p.m., only

Use only *red* ink or pencil in rating Regents papers. Do not attempt to *correct* the pupil's work by making insertions or changes of any kind. Use checkmarks to indicate pupil errors.

Scores should be cumulated within parts of the examination and transferred to the cover of the answer booklet.

Part I — Mental Calculation Test

Allow a total of 20 credits, one credit for each of the following. [Allow no partial credit.]

(1) 242⅗	(6) $1.00	(11) $110,011	(16) $.75
(2) 16,500	(7) $1.80	(12) 40	(17) $15
(3) 150	(8) 137	(13) 16⅔%	(18) $20
(4) $54	(9) ¹⁄₁₂	(14) 58	(19) $12
(5) 2,885	(10) $21.93	(15) M	(20) $6

Part II

Allow a total of 40 credits, two credits for each correct answer. [Allow no partial credit.]

(1) $828.69	(11) 33⅓% *or* 33.3%
(2) $483.48	(12) $6.62
(3) 7.03	(13) $510
(4) 3½ *or* 3.5	(14) $140.40
(5) $823.20	(15) 12%
(6) 76 hr. 29 min.	(16) $3,750
(7) 15%	(17) $410.06
(8) June 24	(18) 24
(9) $24	(19) $22,500
(10) $9,000	(20) 1

[OVER]

Part III

Allow a total of 16 credits, 4 credits for each of four groups. [Allow no partial credit for any one question.]

Group 1		Group 3		Group 5	
(21) $82.80	[2]	(25) $71.50	[2]	(29) 1,550	[2]
(22) 28%	[2]	(26) $5.55	[2]	(30) $82.50	[2]

Group 2		Group 4	
(23) 50 days	[2]	(27) $36	[2]
(24) $852.60	[2]	(28) 10%	[2]

Part IV

Allow a total of 24 credits, 6 credits for each of four questions. [Allow partial credit as indicated in the pamphlet entitled *Suggestions for the Rating of Regents Examination Papers in Business Subjects.*]

(31) $518.46	(33) $61	(35) $18.23
(32) $190.40	(34) $7.98	

DO YOU KNOW...

... that most questions used on Regents examinations have been tried out in advance in representative classrooms throughout the State?

Each year more than 40,000 pupils in about 300 schools "pretest" questions intended for use in future Regents examinations. When committees of classroom teachers meet to assemble Regents examinations, the information obtained from this pretesting is to aid them in determining which questions are appropriate, which questions need revision, and which questions should be eliminated.