The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

BUSINESS ARITHMETIC

Monday, June 18, 1973 — 1:15 to 4:15 p.m., only

Instructions for Part I — Mental Calculation Test

Do not turn this sheet over until the signal is given.

All questions on Part I are to be worked mentally and the *answers only* placed on the back of this sheet. 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.

Be sure to write your name in the proper space on the back of this 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.

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

Part I
MENTAL CALCULATION TEST

Pupil...

Directions (1–18): Write the correct answer to *each* of the following in the blank space at the right of each question. No written computations are allowed. [18]

1 Add: 13⅜
       7
      5⅝

1................

2 Add: $ 2.03
       4.19
     27.82
       .64
      9.89

2................

3 What is the interest on $600 for 15 days at 8%?

3................

4 Grapefruit are selling currently at 2 for 49¢. What should you pay for 4 grapefruit? ($1.96; $1.02; $.98; $.96)

4................

5 An architect uses a scale of ¼ inch equals 1 foot. What actual distance would be represented by a line 2½ inches in length?

5................

6 What is the cost of 144 pounds of nails at 12½¢ per pound?

6................

7 What is 96.5 divided by 1,000?

7................

8 What number is approximately ⅓ of $5,963? ($20; $1,500; $2,000; $3,000)

8................

9 What is .375 expressed as a fraction in lowest terms?

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

10 What is 96 increased by 16⅔% of itself?

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

11 60 is 120% of what number? (12; 48; 50; 72)

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

12 At 25¢ a pound, how many pounds can be bought for $3.00? (7½; 8½; 12; 75)

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

13 Subtract: 472⅘
    —385⅗

13................

14 What amount is ⅚% of $1,200?

14................

15 What is the amount of interest on $2,600 for 60 days at 9%?

15................

16 What will be the cost of 250 pencils at $6 per C?

16................

17 What would be the amount of a 6% sales tax on a furcoat priced at $500?

17................

18 What is the exact number of days from March 19 to April 6?

18................

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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. Be sure to fill in the heading of your answer booklet.

DO NOT OPEN THIS EXAMINATION BOOKLET UNTIL THE SIGNAL IS GIVEN

Answer 18 of the 20 questions in this part. Scrap paper may be used. Write only your answers in the separate answer booklet. [36]

IN RECORDING YOUR ANSWER IN THE ANSWER BOOKLET
BE SURE TO USE THE CORRECT SPACE.

1 Carlsbad, Everett, and Fletcher invested $22,000, $12,000, and $6,000, respectively, in a partnership. Net profits are to be shared in proportion to the partners' original investments. What percent of the net profit will Carlsbad receive?

2 Mr. Day's electric meter read 39,842 kilowatt-hours on September 1. On October 1, it read 40,026 kilowatt-hours. What was the amount of Mr. Day's electric bill for September if the average cost per kilowatt-hour was $5\frac{1}{2}$ cents?

3 A delivery truck cost $4,250 when new. The owner received $2,000 for the truck when it was traded in 5 years later. What was the amount of the average annual depreciation?

4 The basic rate for fire insurance on a residence is $.16 per $100. The rate for the homeowner's extended-coverage insurance is $.24 per $100. What would be the difference in cost between these two policies on a house valued at $24,000?

5 Reid is employed on a 40-hour week basis, with time-and-one-half for overtime. Last week he worked a total of 44 hours. If his regular pay rate is $2.80 per hour, what total amount of money did Reid earn last week?

6 An electric appliance dealer requires all customers who make purchases on the installment plan to make a downpayment of 15% of the total installment price. If a customer makes a downpayment of $48 on a refrigerator, what is the amount of the total installment price?

7 A high school student worked during the summer selling subscriptions on a commission basis for a magazine publisher. His rate of commission was 30%. During the summer, he sold $3,290 worth of magazine subscriptions. What amount of money did he earn as commissions?

8 Hudson sold 70 shares of A & Z stock at $37 per share. Brokerage and other expenses amounted to $35. What amount of money did Hudson receive as net proceeds from the sale?

9 What amount of money can be saved by paying $1,250 cash for a used car instead of buying it on the installment plan at a cost of $60 per month for two years?

10 Robert Conners bought a cottage for $14,700. He paid 30% of this price in cash. He also had to pay $90 to have the property surveyed, $45 to have the title searched, and $105 for lawyers' fees. What amount of cash was needed at the time he bought the house?

11 Joan Wilson, a stenographer, receives wages of $90 per week. What amount of money is deducted from her salary each week for FICA (social security) taxes, at the tax rate of 5.5%?

12 Imported sweaters are bought at $300 a dozen and are sold at a gross profit of 60% of cost. What is the amount of gross profit on each sweater?

13 Multiply 70.5 by 43.6 and divide the product by 15.

14 Divide $2\frac{5}{8}$ by $\frac{3}{4}$.

15 Express $\frac{7}{26}$ as a decimal, correct to the *nearest hundredth*.

16 What percent of 860 is 43?

17 Jones' interest-bearing note, payable to his bank, was dated March 18, 1973, and was due on June 18, 1973. For how many days was he charged interest?

18 Williams' lot is assessed at 35% of its actual value. Property in his city is taxed at the rate of $7.35 per $100. If the actual value of his lot is $6,000, what is the amount of Williams' tax bill?

19 An invoice for equipment bought by Donley was dated October 25, with terms $\frac{1}{10}$, $n/30$. What is the last day on which he can pay the invoice and still take advantage of the cash discount?

20 On April 2, Carter received a $300, 6%, ninety-day promissory note from a customer. If Carter held the note until maturity, what would be the total amount of money he should receive from this note?

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 in the answer booklet. [16]

Group 1

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

A service station attendant is paid $2.00 per hour for a 40-hour week and a commission of 2% on that portion of his gasoline sales in excess of $1,500 per week.

21 During a recent week he sold $2,300 worth of gasoline. What was the amount of his commission that week?

22 During another week he sold $3,200 worth of gasoline. What was the amount of his total earnings for that week?
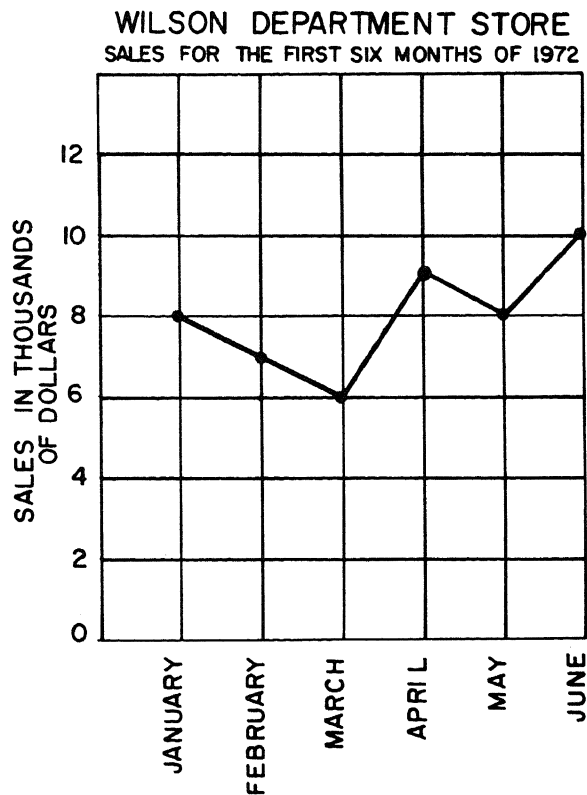
Group 2

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

On the same day a homeowner received two bills in the mail. The gas and electric bill for $36.20 could be settled by paying a net price of $34.39 within ten days. The water bill was for $12.80. If this bill was paid within 10 days, a discount of 5% could be deducted.

23 What percent of cash discount would be earned by paying the net price for the gas and electric bill?

24 What would be the net amount of the water bill if it was paid within the 10-day cash discount period?

Group 3

Directions (25–27): Base your answers to questions 25 through 27 on the graph below which shows the sales of Wilson Department Store for the first 6 months of 1972.

WILSON DEPARTMENT STORE
SALES FOR THE FIRST SIX MONTHS OF 1972

25 By what amount of money did the sales in April exceed the sales in March? [1]

26 What was the average amount of sales per month for the 6-month period? [1]

27 By what percent do the sales of the highest month exceed the sales of the lowest month? [2]

☞ GO RIGHT ON TO THE NEXT PAGE.

Group 4

Directions (28–29): Base your answers to questions 28 and 29 on the information below.

On July 3, Wagner borrowed $950 for 90 days at 6% from his local bank.

28 On what date must Wagner repay the loan?

29 What is the total amount of money Wagner will owe the bank on the due date of his loan?

Group 5

Directions (30–31): Base your answers to questions 30 and 31 on the information below.

Sullivan can buy a new car for $3,780 cash. The dealer will allow him $1,000 as a trade-in on his old car. If Sullivan buys this car on the installment plan, the dealer requires in addition to the old car, $500 downpayment, plus $106.60 a month for 24 months.

30 How much money must Sullivan pay the dealer if he pays cash for the car?

31 What additional amount of money must Sullivan pay if he uses the installment plan?

Part IV

Answer any five of the seven questions in this part. All work must be shown in the answer booklet. [30]

32 On October 13, William Butler received a bank statement showing a balance of $349.82. Mr. Butler's checkbook indicated a balance of $211.72. When he compared his checkbook with the bank statement, he discovered that he had failed to record a deposit of $50.00 in the checkbook and that there were outstanding checks for $50.80, $21.15, and $18.40. There was also a bank service charge of $2.25. Prepare a bank reconciliation statement, and indicate the correct available checkbook balance.

33 Three dairy farmers, Brown, Carr, and Delaney, invested $20,000, $40,000, and $60,000, respectively, in a partnership to market their milk products. They agreed that each would receive 8% on his investment and that the remaining profit would be divided equally at the end of the year. If their net profit for the year was $42,000, how much did Carr receive as his total income?

34 A businessman went into bankruptcy owing the following debts:

Johnson	$2,843
Hansen	6,217
Blake	3,740
Sorti	1,700

The net cash available for distribution to creditors amounted to $5,075. What amount of money should Sorti expect to receive in settlement of his account?

35 Peck's Furniture Store bought a chair for $128 less 25%. There was also a transportation charge of $9 on the chair. At what price must the store sell this chair in order to make a gross profit of 40% based on the cost?

36 Kramer is employed in a factory where earnings are computed on a piecework basis as follows:

First 100 acceptable pieces........ 60¢ each
The next 20 pieces............... 70¢ each
All over 120 pieces.............. 80¢ each

Kramer's production record last week was: Monday, 29; Tuesday, 30; Wednesday, 32; Thursday, 29; Friday, 27. A total of nine pieces were rejected by the inspectors. What was the amount of Kramer's gross earnings for the week?

37 The Bicycle Club has 84 members. The club needs a total of $173 for a trip to be taken by all club members. The club treasurer reports a cash balance of $41.12. What additional amount of money must be collected from each member to provide the total amount needed for the trip?

38 A dealer sells merchandise subject to a discount series of 30% and 20%. A competitor sells similar goods at the same list price, subject to discounts of 40% and 10%. What percent of discount will be saved by a customer who chooses the better offer?

FOR TEACHERS ONLY

BA

SCORING KEY

BUSINESS ARITHMETIC

Monday, June 18, 1973 — 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 18 credits, one credit for each of the following. [Allow no partial credit.]

(1) 26	(6) $18	(11) 50	(16) $15
(2) $44.57	(7) .0965	(12) 12	(17) $30
(3) $2	(8) $2,000	(13) 87⅕	(18) 18 days
(4) 98¢	(9) ⅜	(14) $10	
(5) 10 ft.	(10) 112	(15) $39	

Part II

Allow credit for only 18 of the 20 questions in this part. If more than 18 questions are answered, only the first 18 answered should be considered. Allow a total of 36 credits, two credits for each correct answer. [Allow no partial credit.]

(1) 55%	(6) $320	(11) $4.95	(16) 5%
(2) $10.12	(7) $987	(12) $15	(17) 92 days
(3) $450	(8) $2,555	(13) 204.92	(18) $154.35
(4) $19.20	(9) $190	(14) 3½ *or* 3.5	(19) Nov. 4
(5) $128.80	(10) $4,650	(15) .27	(20) $304.50

[OVER]

Part III

Allow a total of 16 credits, 4 credits for each of four groups. If more than four groups are answered, only the first four answered should be considered. [Allow no partial credit for any one question.]

Group 1

(21) $16   [2]

(22) $114   [2]

Group 2

(23) 5%   [2]

(24) $12.16   [2]

Group 3

(25) $3,000   [1]

(26) $8,000   [1]

(27) 66⅔% or 66.7%   [2]

Group 4

(28) Oct. 1   [2]

(29) $964.25   [2]

Group 5

(30) $2,780   [2]

(31) $278.40   [2]

Part IV

Allow a total of 30 credits, 6 credits for each of five questions. If more than five questions are answered, only the first five answered should be considered. [Allow partial credit as indicated in the pamphlet entitled *Suggestions for the Rating of Regents Examination Papers in Business Subjects*.]

(32) $259.47

(33) $14,000

(34) $595

(35) $147

(36) $88.40

(37) $1.57

(38) 2%

DO YOU KNOW ...

... that practically all objective questions used on the Regents examinations have been "pretested" on a representative sample of students in New York State schools?

Over 6,000 questions in 16 subject areas were tried out in May 1972. These questions were assembled into 267 pretest forms that could be administered in a single classroom period. Some 53,000 students in 355 schools throughout New York State participated in this pretesting of questions for possible use in future Regents examinations.