BUSINESS MATHEMATICS

Monday, June 23, 1975 — 1:15 to 4:15 p.m., only

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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.

When you have completed the examination, you must sign the statement printed at the end of the answer booklet, indicating that you had no unlawful knowledge of the questions or answers prior to the examination and that you have neither given nor received assistance in answering any of the questions during the examination. Your answer booklet cannot be accepted if you fail to sign this declaration.

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: 264
         1,059
           378
         3,250
         ———

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

2 Subtract: $784.93
            —258.87
            ———

2....$..............

3 What is the amount of interest on $60 for 129 days at 6%?

3....$..............

4 What is the cost of 3,250 rulers at $40 per M?

4....$..............

5 What is 247.65 multiplied by 100?
(24,765; 2,476.5; 24.765; 2.4765)

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

6 What is 38.9% expressed as a decimal to the *nearest hundredth*?

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

7 What is the exact number of days between July 28 and September 16?

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

8 What is 36.7% expressed as a decimal?

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

9 If the commission, at 3%, on the sale of a house was $312, what was the selling price of the house?

9....$..............

10 Subtract: 1,191
             —207⅛
             ———

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

11 If a person earns $120 for a 40-hour week, what is the hourly wage?
($2.40; $3.00; $3.60; $4.80)

11....$..............

12 $15 is what percent of $75?

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

13 What is ¾% of 1,200?

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

14 What is the cost of 80 quarts at 20¢ per gallon?

14....$..............

15 Which number is ¼ more than 60?
(45; 70; 75; 240)

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

16 What is the amount of interest on $1,200 for 90 days at 8%?

16....$..............

17 25% of 396 is approximately
(1,000; 100; 10; .1).

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

18 ¾ of what number is equal to 36?
(48; 40; 36; 24)

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

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

BUSINESS MATHEMATICS   B

Monday, June 23, 1975 — 1:15 to 4:15 p.m., only

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 and sign the statement printed at the end.

DO NOT OPEN THIS EXAMINATION BOOKLET UNTIL THE SIGNAL IS GIVEN

Part II

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 What total sum of money would be paid for a dining room table purchased under the following installment terms?

Terms of Installment Sale

Down-payment	Number of Payments	Amount of Each Payment
$28.00	12	$13.25

2 Divide 6 3/4 by 5 2/5.

3 Losek bought 30 shares of Central Railroad Company stock at 43½ per share. Brokerage and other fees totaled $17.35. What was the total cost of this stock to Losek?

4 Barry Jones' checkbook showed a balance of $98.19. When he checked his bank statement, Jones discovered he had not recorded a deposit of $39 in his checkbook. If there were no other adjustments to be made, what would his correct checkbook balance be?

5 A 50-day promissory note was dated March 18. What was the due date of this note?

6 What was the combined amount of sales for both Harper and Prentice for the five weeks shown below?

Record of Sales

Week	Harper	Prentice
First	$ 2,169	$ 1,875
Second	1,684	1,932
Third	1,241	984
Fourth	1,906	1,741
Fifth	1,107	894

7 Robin Caswell earned $200 last week. If the rate for FICA (Social Security) taxes is 5.85%, what amount should be deducted from her wages?

8 A used car was offered by a dealer on the installment plan for a total cost of $800. The terms were 15% of the cost as a downpayment with the remainder in equal monthly payments for 16 months. What was the amount of each monthly payment?

9 Stephen Kennedy paid $59.80 to cover the annual premium for fire insurance on his property. After nine months, Kennedy canceled the policy. If the insurance company kept 80% of the annual premium, what amount of money was returned to Kennedy?

10 Sheila Norman received annual dividends totaling $81.60 from her investment in 24 shares of Mara Corporation stock. What was the amount of the *quarterly* dividend per share?

11 Three merchants formed a partnership. It was agreed that profits and losses were to be shared equally. If their gross profit for the first year amounted to $11,281 and their expenses were $3,568.90, what was *each* partner's share of the net profit?

12 On September 17, Scott Salton discounted his own promissory note for $215 at the local bank. The proceeds were enough to pay for an invoice of goods listed at $250, less 15%. What amount of money did the bank charge Salton for discounting this note?

13 Nancy Collins bought an automobile for $2,730. Three years later, she traded it in and was allowed $600 for it. What was the amount of average annual depreciation on this car?

14 Linda Jones' property is assessed at 75% of its actual value. What amount of property tax must Jones pay if the actual value of her property is $12,000 and it is taxed at the rate of $92.50 per $1,000?

15 Louis Evans rented an apartment for $95 per month. What total amount of money would he pay as rent for a two-year period of time?

16 An invoice is dated July 26, with terms 3/15, 2/30, n/45. In order to receive the largest possible of the cash discounts, the invoice would have to be paid by what date?

17 A grocer bought a refrigerator for $2,450. It was estimated that this refrigerator would depreciate an average of $250 a year. What would be the estimated value of the refrigerator after five years of use?

18 Janis Rice insured her property, valued at $38,000, for $28,500. What percent of the value of the property was covered by insurance?

19 Faye Hall insures her furniture for $5,000, at $.50 per $100 for one year. What is the amount of her yearly premium?

20 Alan Fish bought a motorcycle for $200 down, with payments of $80 a month for 15 months. If he had paid cash, the motorcycle would have cost a total of $1,310. What was the amount of the carrying charge on this purchase?

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.

LANGFORD HARDWARE STORE

ANALYSIS OF SALES

Week of January 24

DAY	PAINTS	HARDWARE	HOUSEHOLD	MARINE SUPPLIES
M	$92.50	$ 85.70	$ 48.12	$ 40.90
T	42.95	101.20	52.88	82.75
W	89.70	75.35	45.23	55.10
Th	95.20	169.40	96.40	75.95
F	85.25	180.75	89.27	88.20
S	98.80	312.45	110.80	112.50

21 By what amount of money are the Hardware sales greater than the total Marine Supplies sales? [2]

22 By what amount of money are the sales on Saturday greater than those on Monday? [2]

Group 2

Directions (23-25): Base your answers to questions 23 through 25 on the table below. This table shows newspaper mail subscription rates for a New York newspaper.

New York State

	1 year	6 mos.	3 mos.	1 mo.
Daily	20.00	11.00	6.00	2.50
Sunday	15.60	8.50	5.00	1.75
Daily & Sunday	35.60	19.50	11.00	4.25

Outside New York State

	1 year	6 mos.	3 mos.	1 mo.
Daily	23.00	13.00	8.00	3.25
Sunday	18.00	10.00	5.50	2.00
Daily & Sunday	41.00	23.00	13.50	5.25

23 If you live in Utica, N.Y., and subscribe to the daily paper only for 6 months, what rate would you pay? [1]

24 If you live in Scranton, Pa., and subscribe to both daily and Sunday papers for 1 year, what is the rate you would pay? [1]

25 Within New York State, what is the amount you would save in a year if you subscribed to the Sunday paper only on a yearly basis, rather than on a monthly basis? [2]

Group 3

Directions (26-27): Base your answers to questions 26 and 27 on the information below.

A television set with a list price of $400 has been selling for $300.

26 What rate of discount has been allowed?   [2]

27 If the dealer wishes to lower the present selling price to $270, what additional rate of discount must be offered?   [2]

Group 4

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

A merchant purchased goods invoiced at $960. The invoice was dated October 27 with terms of 2/15, 1/30, n/60.

28 What is the last day on which the merchant might pay this invoice and earn the 1% discount?   [2]

29 If the invoice is paid by check on November 9, what should be the amount of the check?   [2]

Group 5

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

On March 31, Michelle Hart's checkbook balance was $475.55 and her bank statement showed a balance of $516. A comparison of her checkbook with her bank statement showed the following: a deposit of $11 had been entered in her checkbook twice; the bank service charge was $2.20; and there were outstanding checks for $23.15, $13.50, $8.70, and $8.30.

30 What was the total of the outstanding checks?   [2]

31 What should be the correct checkbook balance?   [2]

☞ GO RIGHT ON TO THE NEXT PAGE.

Part IV

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

32 A local bank pays interest at the rate of 6% per year, compounded quarterly. If $800 is deposited on January 2, what will the account balance be on January 2 of the following year, assuming there are no further deposits or withdrawals?

33 Helene Cronin sells picnic tables and receives a weekly commission according to the following chart:

$3.25 per table for the first 15 tables sold
$4.00 per table for the next 10 tables sold
$5.00 per table for each additional table sold

If last week she sold 28 tables, what was her total commission?

34 The partial weekly payroll of the Superior Manufacturing Company is shown below. Time-and-a-half is allowed for all hours worked in excess of 40 hours each week.

Employee	Total Hours	Regular Hourly Rate	Total Earnings	FICA Tax	Federal With-holding	N.Y.S. With-holding	Other Deduc-tions
Sass	43	3.60	....	9.37	29.60	6.30	1.20

What is the amount of Sass' net earnings for the week?

35 A machine costing $17,200 became obsolete after fifteen years of use and was sold for $1,720. What was the average annual percent of depreciation on this machine?

36 Krupkin's Women's Wear bought one dozen jackets at a total cost of $72 and marked them to sell at $11 each. Eight were sold at this price and the remainder were to be reduced in price for quick sale. What is the price that *each* of the remaining jackets must be sold for so that Krupkin's will make a profit of 50% on the total cost?

37 Andrea Byrne's checkbook balance on April 1 was $802.15. A comparison of her checkbook with her bank statement received on that date showed the following items were not recorded in the checkbook: a service charge of $2.50; a deposit of $50. She also found that a canceled check for $142 had been entered on the check stub as $124. What was her correct available checkbook balance?

38 Bernhart, Lalley, and Parker formed a partnership to sell all types of insurance. Their investments were $8,000, $9,000, and $10,000, respectively. The partnership agreement stated that out of the net profits each partner will receive 8% interest per year on his original investment and that the remainder of the net profits will be divided equally. The insurance partnership had a net profit of $21,090 last year. What amount of money should Lalley receive as his total share of these net profits?

B

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

BUSINESS MATHEMATICS

Monday, June 23, 1975 — 1:15 to 4:15 p.m., only

ANSWER BOOKLET

Pupil...Teacher...

School...

Part II [36 credits]
Answer only 18 questions.

1................	6................	11................	16................
2................	7................	12................	17................
3................	8................	13................	18................
4................	9................	14................	19................
5................	10................	15................	20................

Part III

Answer the questions in only four of the five groups in this part. Be sure to write in the properly numbered spaces the answers to the groups of questions you have chosen. Leave blank the spaces for the group of questions you do not choose to answer.

Group 1

21................[2]

22................[2]

Group 3

26................[2]

27................[2]

Group 4

28................[2]

29................[2]

Group 2

23................[1]

24................[1]

25................[2]

Group 5

30................[2]

31................[2]

Part IV

Answer only five of the seven questions in this part. Be sure to write the number of the problem in the proper space. All work for this part must be shown in the spaces provided.

[Use this space for computation.]

Problem Number: ....

Answer:................[6]

[Use this space for computation.]

Problem Number: ....

Answer:................[6]

[2]

[Use this space for computation.]

Problem Number: ....

Answer:.................[6]

[Use this space for computation.]

Problem Number: ....

Answer:.................[6]

[3]   [OVER]

FOR TEACHERS ONLY

BM

SCORING KEY

B

BUSINESS MATHEMATICS

Monday, June 23, 1975 — 1:15 to 4:15 p.m., only

Use only *red* ink or *red* 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) 4,951	(6) .39	(11) $3.00	(16) $24
(2) $526.06	(7) 50	(12) 20%	(17) 100
(3) $1.29	(8) .367	(13) 9	(18) 48
(4) $130	(9) $10,400	(14) $4	
(5) 24,765	(10) 983⅞	(15) 75	

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) $187	(11) $2,570.70
(2) 1¼ *or* 1.25	(12) $2.50
(3) $1,322.35	(13) $710
(4) $137.19	(14) $832.50
(5) May 7	(15) $2,280
(6) $15,533	(16) August 10
(7) $11.70	(17) $1,200
(8) $42.50	(18) 75%
(9) $11.96	(19) $25
(10) 85¢	(20) $90

[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) $469.45   [2]
(22) $367.33   [2]

Group 4

(28) November 26   [2]
(29) $940.80   [2]

Group 2

(23) $11   [1]
(24) $41   [1]
(25) $5.40   [2]

Group 5

(30) $53.65   [2]
(31) $462.35   [2]

Group 3

(26) 25%   [2]
(27) 10%   [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) $849.08 *or* $849.09 (If carried 4 places)

(33) $103.75

(34) $113.73

(35) 6%

(36) $5

(37) $831.65

(38) $7,030