

The University of the State of New York  
REGENTS HIGH SCHOOL EXAMINATION

**BUSINESS ARITHMETIC**

Monday, June 16, 1969 — 1:15 to 4:15 p.m., only

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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 (page 3): [20]

1 Add: 
$$\begin{array}{r} 391 \\ 742 \\ 83 \\ \hline 948 \end{array}$$

2 A trackman pole-vaulted 16 feet  $3\frac{3}{4}$  inches to win first place in a track meet. In second place was his teammate, who vaulted 15 feet 9 inches. By how many inches did the winner defeat his teammate?

3 What is  $12\frac{1}{2}\%$  of 832?

4 At a cost of \$.65 per pound, how many pounds can be purchased for \$13? (2; 15; 18; 20)

5 Subtract: 
$$\begin{array}{r} \$387.20 \\ 49.76 \\ \hline \end{array}$$

6 48% expressed as a fraction in *simplest form* is  $\left(\frac{48}{100}; \frac{24}{50}; \frac{12}{25}; \frac{6}{25}\right)$

7 What is the cost of 60 bushels at \$1.40 per bushel?

8 The exact number of days between July 5 and September 2 is (28; 29; 59; 60)

9 Express 145% as a decimal.

10 What is  $\frac{1}{4}\%$  of \$600?

11 75 is what percent greater than 60?

12 What will be the cost of 250 ballpoint pens at \$15 per C?

13 In preparing a set of plans, an architect used a scale of  $\frac{1}{4}$  inch to a foot. How many feet would be represented by a line  $2\frac{1}{2}$  inches long?

14 How much is a 4% sales tax on a coat selling for \$75.00?

15 140% of 40 is (16; 24; 56; 96)

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

16 \$5,800 for 30 days at 6%

17 \$240 for 18 days at 6%

18 \$1,000 for 2 months at 6%

19 \$60 for 470 days at 6%

20 \$3,600 for 60 days at 7%

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Part II

Answer all questions in this part. Write only your answers in the separate answer booklet. [40]

- 1 A bill received recently by Mrs. Warren contained the following amounts: \$31.07; \$63.91; \$7.63; \$58.94; \$27.38; \$16.29. What was the total amount of this bill?
- 2 Mrs. Jones recently paid \$8.25 for a roast weighing 7 pounds 8 ounces. What average price per pound did she pay for this roast?
- 3 Ryan purchased a calculator for \$795 less 20% and 16 $\frac{2}{3}$ %. What was the net price of this calculator?
- 4 In order to encourage retailers to purchase in larger quantities, the Syracuse Manufacturing Company grants a quantity discount of 15% if 150 units are purchased. If the units cost \$22.60 each, how much will Raymond save if he takes advantage of the quantity discount by buying 150 units?
- 5 An invoice dated September 5, amounting to \$47.50, contains terms of 5/10, 2/30, N/60. If the invoice is paid by September 15, what will be the amount of the check?
- 6 An article costing \$121.50 had to be sold for \$97.20. What was the *percent* of loss, based on the cost?
- 7 Mr. Livingston is paid \$85 a week plus a commission of 1 $\frac{1}{2}$ % on all he sells. He sold \$950 worth of goods last week. What were his total earnings that week?
- 8 Mr. Billings is employed on a 40-hour-per-week basis with time-and-one-half for overtime. His regular pay is \$2.20 an hour. During a recent week he worked 46 hours. What was the total amount that he earned that week?
- 9 The owner of a ski shop insured his store with three companies: Atlas Insurance Co., \$10,000; Beacon Insurance Co., \$20,000; Congress Insurance Co., \$30,000. If a fire occurs, for what percent of the total loss will the Atlas Insurance Co. be liable?

- 10 Deere, Fisher, and Griffin earned \$67.47, \$68.25, and \$67.20, respectively, during the week ending February 14. By using the Social Security Employee Tax Table below, determine the total amount of FICA tax withheld from the gross wages of the three employees.

FICA Tax Table		
<i>At least but less than</i>	<i>Tax</i>	
66.94	67.16	2.95
67.16	67.39	2.96
67.39	67.62	2.97
67.62	67.85	2.98
67.85	68.07	2.99
68.07	68.30	3.00
68.30	68.53	3.01
68.53	68.75	3.02

- 11 It is estimated that a motor boat costing \$1,450 will be used for 5 years. At the end of that time it could have a resale value of \$295. What is the amount of average annual depreciation on the boat?
- 12 Edwards and Bryan are partners in a retail shoe business, with investments of \$8,500 and \$12,500, respectively. The net profit for a recent year amounted to \$5,700. The partners have agreed that Edwards is to receive 40% of the net profit and Bryan is to receive 60%. What amount of money would Edwards receive as his share of the net profit for that year?
- 13 The cash price of a food freezer is \$699. The installment price for the same freezer includes a down payment of \$69.90 plus 12 monthly payments of \$58.05 each. How much money would be saved by purchasing the food freezer for cash?
- 14 A homeowner buys fire insurance on his house. The yearly premium rate is 30¢ per hundred dollars. He insures his property for \$15,000. What is the annual premium?

- |   |  |
|---|--|
| <p>15 White bought 60 shares of Telefilm stock at <math>57\frac{1}{2}</math>. The brokerage and other charges amounted to \$13.50. What was the total cost of this transaction to White?</p> <p>16 Atkins was renting a house for \$100 a month, which he later purchased. The total cost of owning his own home the first year was \$1,092. How much did Atkins save each month by owning the house?</p> <p>17 In a certain school district, the tax rate is \$27.50 per \$1,000 of assessed valuation. What school tax must Bishop pay if his property valued at \$14,500 is assessed for 60% of its value?</p> | <p>18 A merchant bought a shipment of goods for \$3,865 and sold it for \$4,392. His operating expenses in connection with this shipment amounted to \$712. What was the amount of this merchant's net loss on the transaction?</p> <p>19 What single discount is equivalent to a trade discount series of 25%, 20%, and 10%?</p> <p>20 Jones, a bankrupt, has assets of \$12,500 and liabilities of \$50,000. How much can Jones pay on each dollar owed?</p> |
|---|--|
- 

**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:

On April 14, Brown borrowed \$480 from a friend, giving a 90-day 5% interest-bearing promissory note as security.

- 21 What is the maturity date of Brown's note?
- 22 What total amount of money will Brown have to repay when this note matures?

**Group 2**

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

The Good Friends Store bought ladies' blouses for \$4 each and marked them to sell at \$7 each. At that price, the store sold 8 blouses a day. In order to increase daily sales, the selling price was reduced to \$6 and sales increased to 15 blouses per day.

- 23 What was the amount of the total daily profit when the blouses were sold at \$7 each?
- 24 What was the percent of markup, based on the selling price, when the blouses were sold at \$6 each?

**Group 3**

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

A salesman is paid  $4\frac{1}{2}\%$  commission on all sales up to and including \$5,500, and  $6\frac{1}{2}\%$  commission on that portion of his sales in excess of \$5,500 in any one month. Last month his sales were \$8,000.

- 25 What amount of commission did he earn at the  $4\frac{1}{2}\%$  rate?
- 26 What amount of commission did he earn at the  $6\frac{1}{2}\%$  rate?

**Group 4**

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

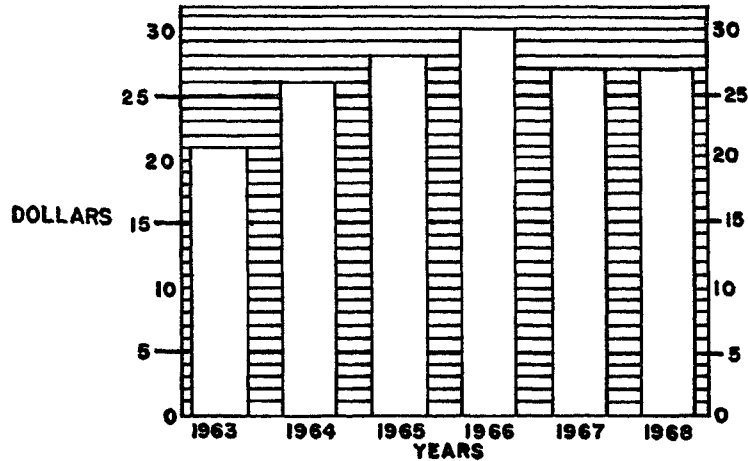
A photographic shop offers a camera for \$99.50 cash or on the installment plan for a total cost of \$106.52 by paying \$8.52 down and the balance in 8 equal monthly payments.

- 27 If Kane buys the camera on the installment plan, what will be the amount of each monthly payment?
- 28 In order to pay cash for the camera, Kane borrows the money from the bank at a cost of \$4.79. How much money will this enable Kane to save?

Group 5

Directions (29-32): Base your answers to questions 29 through 32 on the graph below:

**SCHOOL TAX RATE PER \$1,000  
OF ASSESSED VALUATION  
CITY OF WOODBEND  
1963 - 1968**



- 29 What was the tax per \$1,000 of assessed valuation in 1965?
- 30 In what year was the tax rate the highest?
- 31 What was the lowest tax per \$1 of assessed valuation during the period covered by the graph?

- 32 If a house had been assessed at \$7,000 during the period covered by the graph, how much more money would a taxpayer in this community have paid in 1968 than in 1963 for school taxes?

Part IV

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

33 What is the net amount of money to be paid on this invoice?

<p><b>A. B. PIERCE CO.</b>                  WHOLESALE HARDWARE                  Hillcrest, New York</p>		
<p>June 1, 1969</p>		
<p>Sold to: Ridge Hardware Co.                  High Ridge, New York</p>		
<p>Terms N/30</p>		
<p>1 doz. lawn rakes 75L      \$1.15 ea.                  6 ea. garden wheelbarrows    6.25 ea.                  3 ea. cutter mattocks #5      2.40 ea.</p>		
<p>Less Trade discount                  of 18%</p>		
<p>Net Cost</p>		

34 Mr. Anderson's gas meter read 16,400 cubic feet on February 1. On March 1, it read 19,100 cubic feet.

The gas company's rates are:

- \$2.50 for the first 500 cubic feet
- \$ .30 per hundred cubic feet for the next 500 cubic feet
- \$ .18 per hundred cubic feet for the next 2,000 cubic feet

What was the amount of Mr. Anderson's gas bill for February?

35 Jane Boel, treasurer of the student council, reported a balance of \$867.65 in the student council account before the annual awards dinner. Expenses in connection with this dinner were as follows:

- 235 dinners served at \$1.75 each
- Decorations, \$305.73
- 3 corsages at \$2.50 each
- Programs, \$80
- Invitations, \$16

After all expenses in connection with this dinner had been paid, what balance remained in the student council account?

36 On June 1, Dawson's checkbook balance was \$575. His bank statement on that date showed a balance of \$620.30. Checks for \$63.80 and \$49 were outstanding. The statement showed that the bank had deducted a service charge of \$3 for the month. Dawson discovered that a deposit of \$64.50 had been recorded twice in his checkbook by mistake. Prepare a statement of reconciliation, indicating the correct available cash balance.

37 Instead of buying a completed house for \$16,500, Johnson had a similar house built by paying a contractor for all expenses incurred in building the house.

The expenses were as follows:

Lot	\$1,100	Painting	\$ 630
Excavating and landscaping	500	Plumbing	950
Masonry	1,060	Heating	1,300
Lumber and carpentry	6,655	Electrical work	730
		Other expenses	475

The contractor added 15% to the total expenses for his services. How much did Johnson save by having the house built?

# FOR TEACHERS ONLY

## BA

### SCORING KEY

#### BUSINESS ARITHMETIC

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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) 2,164            | (11) 25%     |
| (2) $6\frac{3}{4}$ " | (12) \$37.50 |
| (3) 104              | (13) 10 ft.  |
| (4) 20               | (14) \$3.00  |
| (5) 337.44           | (15) 56      |
| (6) $\frac{12}{25}$  | (16) \$29    |
| (7) \$84             | (17) 72¢     |
| (8) 59               | (18) \$10    |
| (9) 1.45             | (19) 4.70    |
| (10) \$1.50          | (20) \$42    |

#### Part II

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

- |              |                                |                 |               |
|--------------|--------------------------------|-----------------|---------------|
| (1) 205.22   | (6) 20%                        | (11) \$231      | (16) \$9      |
| (2) \$1.10   | (7) \$99.25                    | (12) \$2,280    | (17) \$239.25 |
| (3) \$530    | (8) \$107.80                   | (13) \$67.50    | (18) \$185    |
| (4) \$508.50 | (9) $16\frac{2}{3}\%$ or 16.7% | (14) \$45.00    | (19) 46%      |
| (5) \$45.12  | (10) \$8.93                    | (15) \$3,463.50 | (20) 25¢      |

[OVER]

BUSINESS ARITHMETIC — *concluded*

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)	July 13 [2]	(25)	\$247.50 [2]	(29)	\$28 [1]
(22)	\$486. [2]	(26)	\$162.50 [2]	(30)	1966 [1]
				(31)	2.1¢ or \$.021 [1]
				(32)	\$42 [1]
Group 2		Group 4			
(23)	\$24 [2]	(27)	\$12.25 [2]		
(24)	33 $\frac{1}{3}$ % or 33.3% [2]	(28)	\$2.23 [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.*]

- |              |               |
|--------------|---------------|
| (33) \$47.97 | (36) \$507.50 |
| (34) \$7.06  | (37) \$1,090  |
| (35) \$47.17 |               |

DO YOU KNOW . . .

. . . that 400 classroom teachers were involved in preparing Regents examinations last year?

- Teachers wrote the questions.
- Other teachers assembled the examinations.
- Still other teachers reviewed the finished product.

And a committee of principals approved all of the examinations before they went to the printer.