

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

BUSINESS ARITHMETIC

Monday, June 19, 1972 — 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. 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 Bennett deposited the following checks in his checking account: \$412.30; \$86.79; \$509.34; \$4,093; \$79.07. What was the total amount he deposited?
- 2 A customer bought a stereo record player at \$350, less a cash discount of 20 percent. How much interest would he pay the bank if he borrowed the necessary cash for one year at $7\frac{1}{2}$ percent?
- 3 The invoice price of a power snow remover is \$150. If this same machine was originally listed at \$180, what percent of discount is being allowed on the machine?
- 4 The list price of a hot water heater is \$115 less 20% and 10%. What is the invoice price of this water heater?
- 5 Add $\frac{7}{8}$, $\frac{5}{6}$, $\frac{7}{12}$, and $2\frac{3}{24}$. Express your answer in *simplest form*.
- 6 An invoice for \$1,286.50, dated October 3, terms 2/10, N/30, was paid on October 10. What was the amount of the cash discount?
- 7 Mary received 50¢ commission on each box of assorted greeting cards sold, and 40¢ commission on each box of personalized greeting cards sold. For a recent week her total earnings amounted to \$32. If she sold 24 boxes of assorted cards, how many boxes of personalized cards did she sell?
- 8 Hudson owns a house and lot assessed at \$3,900 in a community where the tax rate in the current year is \$41.02 per \$1,000 of assessed value. Select the arithmetic function that would give the correct tax bill and write its *number* on your answer sheet.

| | |
|--|--|
| (1) $\$3,900 \div \41.02 | (3) $\$3,900 \times \41.02 |
| (2) $\frac{\$3,900}{100} \times \41.02 | (4) $\frac{\$3,900}{\$1,000} \times \$41.02$ |
- 9 Crow bought a rug 9 feet by 12 feet at \$8.50 per square yard. What was the cost of the rug?
- 10 An employee earned an annual salary of \$7,600. What total amount of FICA tax at the rate of 5.2% was deducted from his wages?
- 11 As a result of switching to a piecework basis for paying wages, a particular department of a factory increased its efficiency by 20%. If the average weekly production per worker was previously 115 pieces, what is the present average weekly production per worker?
- 12 A homeowner insures his house against fire loss for \$18,000 at an annual rate of \$.17 per \$100. What is the amount of the annual premium?
- 13 A businessman sold for \$300 a 10-year-old machine which had originally cost \$3,200. What was the amount of average annual depreciation on this machine?
- 14 Howard and Manning invested \$25,000 in a grocery business. They agreed to share profits in the ratio of 55% to Howard and 45% to Manning. If the profits for the year amounted to \$13,500, what was Manning's share of these profits?
- 15 Small buys a \$249 air conditioner on the installment plan. He pays 30% of the total cost as a downpayment and the balance in regular equal monthly payments of \$11.62. How many months will it take to pay for this air conditioner?
- 16 The toll charge for a telephone call to San Francisco from Albany is \$2.50, plus 10% federal tax and 4% State tax. What is the total cost of a telephone call between these two cities?
- 17 Tefft bought twelve bonds at \$546.25 each. Brokerage fees and other expenses amounted to \$3.45 per bond. What was the total cost of the bonds to Tefft?
- 18 What single percent of discount is equivalent to the series of 15% and 10%?
- 19 Arnold became a voluntary bankrupt with assets of \$1,800 and liabilities of \$12,000. How much will a creditor receive whose claim is \$900?
- 20 A car owner paid the following annual expenses in connection with operating his car: insurance, \$185.55; gasoline and oil, \$310; registration fee, \$18.25; and inspection, repairs, and maintenance, \$115. What is the average monthly amount of money spent for these operating expenses?

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:

Harold Adams insured his house for \$18,000, which was 90% of its actual value. The annual premium rate was \$.62 per hundred. A three-year policy can be purchased at 2.7 times the annual rate.

21 What is the cost of a three-year policy?

22 What was the actual value of the house?

Group 2

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

A high school organization bought sweat shirts at \$18.00 a dozen and sold them at \$2.25 each.

23 What was the percent of gross profit based on the selling price?

24 How much profit was made if 10 dozen sweat shirts were sold?

Group 3

Directions (25-27): Base your answers to questions 25 through 27 on the federal withholding tax table below:

MONTHLY PAYROLL PERIOD

| Wages Are at least but less than | | Number of Withholding Exemptions Claimed | | | | | | |
|-------------------------------------|--------|--|----------|----------|----------|----------|----------|----------|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| \$ 880 | \$ 920 | \$162.00 | \$152.00 | \$142.00 | \$132.00 | \$122.00 | \$112.00 | \$102.00 |
| 920 | 960 | 169.20 | 159.20 | 149.20 | 139.20 | 129.20 | 119.20 | 109.20 |
| 960 | 1,000 | 176.40 | 166.40 | 156.40 | 146.40 | 136.40 | 126.40 | 116.40 |
| Over \$1,000 | | \$180.00 | \$170.00 | \$160.00 | \$150.00 | \$140.00 | \$130.00 | \$120.00 |

Plus 18 percent of the excess over \$1,000

25 What amount of money would be deducted as withholding tax from the wages of a worker who earns \$915 and claims 4 exemptions? [1]

26 What will be the net take-home pay of a worker who earns \$890 and claims 2 exemptions? [1]

27 What will be the net take-home pay of a worker who earns \$1,100 and claims 5 exemptions? [2]

FOR TEACHERS ONLY

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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) $423\frac{1}{7}$ | (6) \$1.16 | (11) $77\frac{1}{3}$ | (16) \$34.50 |
| (2) \$45 | (7) April 16 | (12) 300% | (17) \$2.90 |
| (3) 4,280 | (8) 800 | (13) \$498.50 | (18) \$2.40 |
| (4) July 12 | (9) \$16.80 | (14) \$27 | (19) \$4.20 |
| (5) \$55 | (10) $31\frac{1}{4}$ | (15) \$45 | (20) \$6.70 |

Part II

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

- | | | | |
|----------------------------|---------------|--------------|------------------------|
| (1) \$5,180.50 | (6) \$25.73 | (11) 138 | (16) \$2.85 |
| (2) \$21 | (7) 50 | (12) \$30.60 | (17) \$6,596.40 |
| (3) $16\frac{2}{3}\%$ | (8) 4 | (13) \$290 | (18) $23\frac{1}{2}\%$ |
| (4) \$82.80 | (9) \$102 | (14) \$6,075 | (19) \$135 |
| (5) $3\frac{1}{4}$ or 3.25 | (10) \$395.20 | (15) 15 | (20) \$52.40 |

[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 4 | |
| (21) \$301.32 | [2] | (28) \$9.12 | [2] |
| (22) \$20,000 | [2] | (29) \$.03 | [2] |
| Group 2 | | Group 5 | |
| (23) $33\frac{1}{3}\%$ | [2] | (30) \$32 | [2] |
| (24) \$90 | [2] | (31) \$1,440 | [2] |
| Group 3 | | | |
| (25) \$122 | [1] | | |
| (26) \$748 | [1] | | |
| (27) \$952 | [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.*]

| | |
|---------------|---------------|
| (32) \$20.50 | (35) \$159.60 |
| (33) \$603.68 | (36) \$383 |
| (34) \$19,680 | |

DO YOU KNOW...

Who writes the questions used on Regents examinations?

- 1 the members of the Board of Regents
- 2 the subject supervisors in the State Education Department
- 3 college professors in the various disciplines
- 4 classroom teachers from schools throughout New York State

The correct answer is 4. Last year more than 400 classroom teachers were involved in the preparation of Regents examination questions, and many other teachers served on the committee that assembled the examinations.