

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

BUSINESS MATHEMATICS

Friday, June 16, 1978 — 1:15 to 4:15 p.m., only

Instructions for Part I — Rapid Calculation Test

Do not begin this part until the signal is given.

Scrap paper may be used. Place your answers only in the spaces provided in this booklet. At the end of 15 minutes, work must stop and this booklet must be immediately handed to the examiner. No partial credit will be allowed.

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

DO NOT OPEN THIS EXAMINATION BOOKLET UNTIL THE SIGNAL IS GIVEN.

All answers must be written with blue or black pen.

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

RAPID 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. Scrap paper may be used. [18]

1 Add: \$446.10
 .97
 32.78
 16.90
 207.00

1....\$.

2 Subtract: 8346
 -4729

2.....

3 Multiply $6\frac{2}{7}$ by $8\frac{3}{4}$.

3.....

4 Divide 142.296 by 46.2.

4.....

5 Subtract: $471\frac{5}{6}$
 - 85

5.....

6 Divide $4\frac{1}{2}$ by $\frac{3}{8}$.

6.....

7 What is the value of 5 quarters, 8 dimes, 6 nickles, and 7 pennies?

7....\$.

8 What is the interest on \$480 for 90 days at 9%?

8....\$.

9 18 is what percent less than 54?

9.....

10 126 is $\frac{6}{5}$ of what number?

10.....

11 What is the cost of 150 pounds @ \$2.50 per C?

11....\$.

12 A 10-ounce package of cheese sells for 70¢. What is the price per pound for this cheese?

12....\$.

13 James Miller's net earnings are \$600 a month. He has budgeted 25% of his earnings for food. How much will he spend on food?

13....\$.

- 14 During a sale, the price of a camera was marked down $33\frac{1}{3}\%$ from \$150.
What was the amount of the *discount* offered? 14....\$.....
- 15 A pool measures 12 meters by 10 meters. How many square meters are there
on the surface of the pool? 15.....
- 16 An article costing \$77 is sold for \$88. What was the percent of profit based on
the selling price? 16.....
- 17 Find the cost of 4.5 kilograms of ham at \$2.98 per kilogram. 17....\$.....
- 18 Add: 4 m 8 dm
2 m 7 dm 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 and sign the statement printed at the end after you have completed the examination. In recording your answers, be sure to write the number of the problem and the answer in the proper spaces.

DO NOT OPEN THIS EXAMINATION BOOKLET UNTIL THE SIGNAL IS GIVEN

Part II

Answer any 18 of the 20 questions in this part. Scrap paper may be used. Write only your answers in the separate answer booklet. No partial credit will be allowed. [36]

- 1 An offset press costing \$3,000 is estimated to have a trade-in value of \$600 at the end of 5 years. What is the amount of *average annual* depreciation?
- 2 What total amount of money would the Handy Hardware Store pay for two dozen hammers, if the invoice price of the hammers is \$20 a dozen, less a 28% trade discount?
- 3 An invoice for \$870 was dated September 22 and contained terms of 3/10, n/30. What amount of money would be necessary to pay the invoice if the discount is taken?
- 4 The Baldwin Department Store has a 40% markup based on cost. If this store paid \$24 for a tool, for how much should it sell the tool?
- 5 Susan Gordon buys a stereo on the installment plan. A carrying charge of \$21.60 will be added to the cash price of \$180, and the total cost will be paid in weekly payments of \$4.20 each. How many weeks are needed to pay for this purchase?
- 6 David Spencer earned \$500 one month. The Federal income tax withheld is \$60.20, State income tax is \$12.50, and the FICA tax is \$29.25. What is Spencer's take-home pay?
- 7 Frank Brady's bank statement included a service charge of \$1.95. His checkbook showed a balance of \$165.72. What was his corrected checkbook balance?
- 8 What will be the due date of a 90-day promissory note dated July 16?
- 9 An office clerk spent 70% of her time each day typing reports. If she worked 7 hours on Monday and was paid \$2.80 per hour, what was the cost of the reports she typed that day?
- 10 Fred Foster rented cross-country ski equipment on 23 occasions during a recent year. The charge was \$3.75 each time. During the same year, he bowled in a league 28 times at a cost of \$2.70 each time. By what amount did the year's cost of skiing exceed the year's cost of bowling?
- 11 Brown works in a factory assembling a part of a clock. His operation takes $\frac{3}{4}$ of an hour to complete. How many units can he complete in a $7\frac{1}{2}$ -hour day?
- 12 Find the amount of discount charged by a bank for discounting a \$424 note for 45 days at 9%.
- 13 Allen pays an average rental fee of \$25.40 a year for the use of a sanding machine. The dealer offers to sell him the same type of machine for a total cost of \$263.40. If Allen averages the same yearly rental cost for 11 years, how much more will he have paid in rental costs than the cost to own the machine?
- 14 The manufacturing costs for a set of shelves are \$4.62 for labor and \$3.78 for raw materials and other expenses. What would be the cost of manufacturing a dozen sets of these shelves?
- 15 Maxine Williams purchased a \$15,000 life insurance policy at the rate of \$38.25 per \$1,000 a year. At the end of 20 years, what will be the total amount paid in premiums?
- 16 The village of Briggettsville has a local property tax rate of \$25.38 per \$1,000 of assessed value. If Martin's property is assessed for \$3,500, what is the amount of his tax bill?
- 17 Lois Arlen owns 100 shares of Arista Coal stock, which pays a quarterly dividend of 85 cents per share. What amount of money in dividends will Arlen receive for a one-year period?
- 18 If two handkerchiefs cost \$.49, how much will 3 dozen handkerchiefs cost?
- 19 When figuring his Federal income taxes, Peter Pastor found he had an adjusted gross income of \$14,796.47. Find his taxable income, if he claimed deductions of \$2,974.14 and could claim three exemptions (including himself) of \$750 each.
- 20 A wall 28 feet long is to be filled as completely as possible with file cabinets. If each file cabinet is $1\frac{3}{4}$ feet wide, how many cabinets can be placed along the wall?

Part III

Answer any four of the five questions in this part. All work must be shown in the answer booklet. Partial credit may be allowed. [16]

- | | |
|--|---|
| <p>21 Florence Davis is interested in purchasing an organ. The Arturo Music Store has one on sale for \$1,500. Her credit union will finance the cost of the organ for 24 months at \$70.61 per monthly payment. Find the total cost of interest to Davis.</p> <p>22 Mantle works as a salesman in a sporting goods store. He receives a weekly salary of \$74 plus 5% commission on sales above his quota of \$500. What were his total earnings last week if his sales amounted to \$800?</p> <p>23 Green has two life insurance policies: a \$15,000 term policy which costs \$3.49 per \$1,000 per year, and a \$7,500 straight life policy which costs \$12.64 per \$1,000 per year. What is the total annual cost of these two policies?</p> | <p>24 Joyce Sherwood's property is valued at \$57,000. She insures it for 80% of its value. If the annual rate is \$.65 per \$100, what annual premium does Sherwood pay?</p> <p>25 The Nick-Knack Gift Shop purchased candlesticks for \$12.00 each, less a trade discount of 25%. At what price should each be marked to sell if a 36% markup on cost is desired?</p> |
|--|---|
-

 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. Partial credit may be allowed. [30]

- 26 Carol Dammann earns a monthly salary of \$600 as a salesperson. Every quarter of the year she receives a commission. During a recent year, her first-quarter commission was \$425, the second-quarter was \$485, the third-quarter was \$398, and the fourth-quarter was \$490. What was her total income for the year?
- 27 Jones Supply Company can purchase a loading machine for \$3,600 cash or on the deferred payment plan by paying \$600 down, with four quarterly payments of \$810 each. If they decide to pay cash, they will need to borrow the money from a bank at a total cost of \$215 for interest and fees. What amount of money will the firm save by choosing the less expensive of these two purchase plans?
- 28 Jackson purchased a used duplicator for \$2,640. He was given a trade-in allowance of \$860 on his old machine. The finance charge is 8% of the unpaid balance at the time of purchase. Jackson agreed to pay the unpaid balance and finance charge in 18 equal monthly installments. How much money did Jackson pay on each installment?
- 29 On September 30, Callahan's checkbook balance was \$2,238.79. On the same date, his bank statement showed a balance of \$3,554.75. The following checks were outstanding: \$856.21; \$287.35; \$275.65. A deposit of \$100 made at the end of the month was not recorded on the bank statement. The bank statement listed a service charge for \$3.25. What is Callahan's correct available checkbook or bank balance?
- 30 The Sands Beach Shop purchased 50 swimsuits at \$12.95 each. The shop sold 10 at \$22 each, 20 at \$18.50 each, and the remainder at \$15 each. Find the total profit on the 50 swimsuits.
- 31 The following is a schedule of the cost of advertisements in the high school yearbook.
- | | |
|--------------------|---------|
| Full Page | \$40.00 |
| Half Page | 25.00 |
| Quarter Page | 15.00 |
- The treasurer of the senior class reported the following pages of advertising sold: 3 full pages, 8 half pages, and 32 quarter pages. If 90% of the money for advertisements is received before the yearbook is published, how much money for advertising is received before the date of publication?
- 32 A ticket seller at a football game starts his sales with \$50 in change, 730 adult tickets at \$1.25 each, and 840 student tickets at \$.50 each. At the end of the game he has:
- | |
|----------------------------|
| 250 unsold adult tickets |
| 214 unsold student tickets |
| \$963.50 in cash |
- By what amount of money is the cash short or over?

FOR TEACHERS ONLY

SCORING KEY

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BUSINESS MATHEMATICS

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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 — Rapid Calculation Test

Allow a total of 18 credits, one credit for each of the following. [Allow no partial credit.]

- | | | | |
|----------------------|-----------------------|---------------|------------------------|
| (1) \$703.75 | (6) 12 | (11) \$3.75 | (16) $12\frac{1}{2}\%$ |
| (2) 3,617 | (7) \$2.42 | (12) \$1.12 | (17) \$13.41 |
| (3) 55 | (8) \$10.80 | (13) \$150.00 | (18) 7 m 5 dm |
| (4) 3.08 | (9) $66\frac{2}{3}\%$ | (14) \$50.00 | |
| (5) $386\frac{5}{6}$ | (10) 105 | (15) 120 . | |

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) \$480.00 | (11) 10 |
| (2) \$28.80 | (12) \$4.77 |
| (3) \$843.90 | (13) \$16 |
| (4) \$33.60 | (14) \$100.80 |
| (5) 48 | (15) \$11,475.00 |
| (6) \$398.05 | (16) \$88.83 |
| (7) \$163.77 | (17) \$340.00 |
| (8) Oct 14 | (18) \$8.82 |
| (9) \$13.72 | (19) \$9,572.33 |
| (10) \$10.65 | (20) 16 |

[OVER]

BUSINESS MATHEMATICS — *concluded*

Part III

Allow a total of 16 credits, 4 credits for each of four questions. If more than four questions are answered, only the first four answered should be considered. [Allow partial credit as indicated in the pamphlet entitled *Suggestions for the Rating of Regents Examination Papers in Business Subjects* as recorded under Part IV.]

(21) \$194.64

(24) \$296.40

(22) \$89.00

(25) \$12.24

(23) \$147.15

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*.]

(26) \$8,998.00

(30) \$242.50

(27) \$25.00

(31) \$720.00

(28) \$106.80

(32) 50¢ over

(29) \$2,235.54