# The University of the State of New York Regents High School Examination 

## BUSINESS ARITHMETIC

Tuesday, August 22, $1961-12 \mathrm{~m}$, to 3 p.m., only

## Fill in the following lines:

Name of pupil................................................................

## Instructions for Part I

Do not open this sheet until the signal is given.
All parts of the rapid calculation test are to be worked mentally and the answers only placed on the question paper. At the end of 15 minutes, work must stop and the sheet used for this part of the examination must then be detached from the rest of the question paper and immediately handed to the examiner.

## All answers must be written with pen and ink.

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

1 a Subtract:
[1]
$\$ 105.80$
39.27
b Make the following extensions: [5]
117 bushels at 333 cents per bushel $=\$$.
480 pounds at $37 \frac{1}{2}$ cents per pound $=\$$.
75 yards at 48 cents per yard $=\$$.
24 gallons at $\$ 1.12 \frac{1}{2}$ per gallon $=\$$.
240 quarts at $16 \frac{2}{3}$ cents per quart $=\$$.
c Compute the interest: [5]
$\$ 486$ for 30 days at $6 \%=\$$. $\qquad$
$\$ 1,800$ for 90 days at $6 \%=\$$. $\qquad$
$\$ 800$ for 4 months at $3 \%=\$$. $\qquad$
$\$ 600$ for 126 days at $6 \%=\$$. $\qquad$
$\$ 1,600$ for 15 days at $4 \frac{1}{2} \%=\$$. $\qquad$
d Complete each of the following:
[5]
A tax rate of $\$ .0640$ per $\$ 1$ expressed as a tax rate per $\$ 1,000$ is .2647 expressed as a percent correct to the nearest tenth is
The percent of discount on an article listed at $\$ 75$ and sold for $\$ 50$ was $\frac{1}{2} \%$ of $\$ 270$ is
The exact number of days from May 12 to June 21 is
\$. $\qquad$
$\square$\%
\$

$\qquad$
$e$ Complete the following summary of sales made: [Allow no partial credit.]

| Salesman | First Month | Second Month | Totals |
| :--- | :---: | :---: | :---: |
| Peterson | $\$ 1,027$ | $\$ 1,134$ | $\$$ |
| Curtis | 946 | 1,109 | $\$$ |
| Wiston | 498 | 287 | $\$$ |
| TOTALS | $\$$ | $\$$ | $\$$ |

# BUSINESS ARITHMETIC 

Tuesday, August 22, 1961

Name of pupil
Name of school
Part I, 1 Rapid calculation test on attached sheet. [20]
The remaining sheets of this question paper should be handed in at the close of the examination.

## Part II

Answer all parts of this question. Answers only are required.
2 Write each answer in the space provided on the question paper. [Work need not be
shoten.] shown.] [40]
a What single percent of discount is equal to a series discount of $40 \%$ and $5 \%$ ?
$b$ Clark, a salesman, had gross earnings for the past four weeks of $\$ 106.80, \$ 96.00$, $\$ 132.16$ and $\$ 130.92$, respectively. What were Clark's average weekly gross earnings for the four-week period?
c On March 28, Knight bought goods for $\$ 525$, terms $2 / 10,1 / 30, N / s o$. What would be the amount of the check Knight would have to write to pay this invoice on April 6?
d An automobile costing $\$ 3,875$ when new is worth $\$ 425$ after being used for six years. What was the amount of the average annual depreciation on the automobile?
e Baker works on a 40 -hour-week basis with time and a half for overtime. Last week he worked 48 hours. His regular hourly wage rate is $\$ 2.10$. What amount did Baker earn last week as gross earnings?
f Mr. Jackson's net taxable income for 1960 was $\$ 1,590$. The New York State Income Tax rate on net taxable income is $2 \%$ on the first $\$ 1,000$ and $3 \%$ on the next $\$ 2,000$ or fraction thereof. What was Jackson's New York State income tax for 1960? [Do not consider any special credits.]
$g$ Lewis insured his house for three years for $\$ 9,200$. The insurance rate was 54 cents per $\$ 100$ for the three-year period. What was the average annual cost of this policy?
h A salesman receives a commission of $5 \%$ on that part of his sales which exceeds $\$ 500$. During the first week in March he sold $\$ 3,866.25$ worth of goods. What was the amount of his commission for that week?
i In 1055 , the cost of manufactirimb same battery can be manufactured a car battery was \$16. The percent of decrease in the cost of manufacturing?
i Russell's electric meter read 8,792 kilowatt hours on June 1. Two months later it read 9,106 kilowatt hours. If the average cost per kilowatt hour was $4 \frac{1}{2}$ cents, what was the amount of Russell's electric bill for the two-month period?
$k$ Sturges purchased a set of encyclopedias for $\$ 127.50$ with discounts of $20 \%$ and $5 \%$. What was the net amount that Sturges paid for the set of encyclopedias?
$l$ A salesman earned $\$ 68$ by receiving a commission of $8 \%$ on the sale of a used car. What was the selling price of the car?
$m$ On July 1, 1960, Levy deposited $\$ 2,000$ in a bank which paid interest at the rate of $3 \%$ per year. This interest was added to depositors' accounts every six months. If no other deposits or withdrawals were made, how much money did Levy have available in the bank one year later?
$n$ Notebooks which cost a dealer $\$ 1.68$ per dozen are sold for $\$ .20$ each. What percent of gross profit based on the selling price did the dealer make by selling one dozen notebooks?
o Mr. Whitcomb purchased a coat at the Jayson Department Store for $\$ 36.98$ plus a sales tax of 3 percent. What was the total cost of this coat to Mr. Whitcomb?
$p$ The tax rate for the village of Newton is $\$ 4.069$ per $\$ 100$ of assessed valuation. How much tax will Mr. Martin have to pay on his property, which is assessed at $\$ 8,300$ ?
$q$ Under a bankruptcy agreement, the firm of Nelson and Pickard is ordered to pay its creditors $\$ .58$ on each dollar that is due them. How much would a creditor receive as his settlement for a claim of $\$ 2,700$ ?
$r$ A builder purchased $32 \frac{1}{2}$ acres of land for a building development. He divided the property into plots of $2 \frac{1}{2}$ acres each. How many plots did he have?
s Kirk owned 250 shares of Standard Chemical stock which paid a semiannual dividend of $12 \frac{1}{2}$ cents per share. Find the amount of his semiannual dividend check.
$t$ A record player costs $\$ 79.49$ on a cash basis. On an installment plan, the terms would be $\$ 10$ down and $\$ 6.25$ a month for 12 months. How much more money would the installment buyer pay than a cash buyer?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$p$. $\qquad$
$\qquad$
$\qquad$
$s$. $\qquad$
$t$.

## Answer any four questions from thim part,

3 Dridge and Pfeiffer formed a partnership with investments of $\$ 20,000$ and $\$ 30,000$, reapectively. The partnership agreement provided that the annual net profit would be divided in proportion to each partner's investment. Gross profit for the first year of operations amounted to $\$ 8,630$. Operating expenses amounted to $\$ 2,410$. How much did Pfeiffer receive as his share of the net profits for the first year? [6]

4 The following graph shows the record of sales and cost of goods sold by the Jones Manufacturing Company during the period 1955 through 1960.

## JONES MANUFACTURING COMPANY <br> Record of Sales and Cost of Goods Sold 1955-1960



Answer each of the following questions pertaining to the graph.
$a$ In what year was the amount of sales made by this company
$b$ In what year did the cost of goods sold reach the lowest point the highest point ?
$c$ What was the amount of the gross profit made by this company in 1957]
$d$ It is estimated

$$
\begin{aligned}
& \text { 1960. On this basis, what is the amount of the sales should be at least } 20 \%
\end{aligned}
$$

1960. On this basis, what is the amount of in 1965 should be at least $20 \%$ above those in

6 The Lewin Appliance Company purchased a washing machine for $\$ 236$, less $25 \%$. Freight and trucking charges amounted to $\$ 22$. At what price should the washing machine be sold in order to make a gross profit of $38 \%$ of the total cost price?
7 Hallenbeck purchased a two-family house for $\$ 24,000$, paying $\$ 10,000$ in cash and giving a mortgage for the balance. He rented each apartment for $\$ 120$ a month. His expenses during the year were as follows : insurance, $\$ 90$; taxes, $\$ 635$; depreciation and repairs, $\$ 615$; interest on the mortgage, $\$ 840$. What was Hallenbeck's annual rate of return that year based on his original cash investment?
[6]

## Part IV

## Answer any four questions from this part. All work must be shown.

8 Dunham insured his building valued at $\$ 45,000$ for $\$ 30,000$ under a standard fire insurance policy containing an $80 \%$ coinsurance clause. If a fire loss of $\$ 7,200$ occurred, what amount of money would Dunham collect from the insurance company?

9 A farmer sent a commission merchant 900 bushels of potatoes to be sold. The commission merchant sold the potatoes at $\$ .90$ a bushel. He deducted a $6 \%$ commission on sales, $\$ 15.50$ for trucking and $\$ .02 \frac{1}{2}$ per bushel for storage. What amount did this farmer receive as the net proceeds from this sale? [4]

10 The Apex Collection Agency collected $70 \%$ of an outstanding bill of $\$ 935$ owed to the Leone Printing Company. If the collection agency charged $12 \%$ commission, what was the amount of the check remitted to the Leone Printing Company? [4]

11 In order to have sufficient cash to pay his current bills, Walters discounted his 50 -day, non-interest-bearing note at his bank. The rate of discount was $6 \%$. If the face of the note was $\$ 750$, what was the amount of the net proceeds? [4]

12 Strickland paid $\$ 23.40$ for a camera that had been marked down $28 \%$ below the list price. What was the list price of this camera? [2] Prove your answer. [2]

# FOR TEAOHERS ONLY 

## INSTRUCTIONS FOR RATING BUSINESS ARITHMETIC

Tuesday, August 22, $1961-12 \mathrm{~m}$. to 3 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.

## Part I - Rapid Calculation Test

1 Allow a total of 20 credits as indicated: [Allow no partial credit.]
a $\$ 66.53-1[1]$
$e$

|  |  | $\$ 2,161$ |
| :--- | :--- | :--- |
|  |  | $\$ 2,055$ |
| $\$ 785$ |  |  |
| $\$ 2,471$ | $\$ 2,530$ | $\$ 5,001$ |

## Part II

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

| $a$ |  | $43 \%$ |
| :--- | ---: | ---: |
| $b$ | $\$$ | 116.47 |
| $c$ | $\$$ | 514.50 |
| $d$ | $\$$ | 575.00 |
| $e$ | $\$$ | 109.20 |
| $f$ | $\$$ | 37.70 |
| $y$ | $\$$ | 16.56 |
| $h$ | $\$$ | 168.31 |
| $i$ |  | $15 \%$ |
| $j$ | $\$$ | 14.13 |


| $k$ | $\$$ | 96.90 |
| :--- | ---: | ---: |
| $l$ | $\$$ | 850.00 |
| $m$ | $\$ 2,060.45$ |  |
| $n$ | $30 \%$ |  |
| $o$ | $\$$ | 38.09 |
| $p$ | $\$$ | 337.73 |
| $q$ | $\$ 1,566.00$ |  |
| $r$ |  | 13 |
| $s$ | $\$$ | 31.25 |
| $t$ | $\$$ | 5.51 |

$3 \$ 3,732 \quad[6] *$

| 4 | 1959 |  |
| :---: | :---: | :---: |
| $b$ | 1957 | $[1]$ |
| $c$ | $\$ 29,000$ |  |
| $d$ | $\$ 54,000$ | $[1]$ |
|  | $[2]$ |  |

5 Reconciliation will depend upon method used. Correct available balance is $\$ 227.55$. [6]*
$6 \$ 274.62[6]^{*}$
$77 \% \quad[6]^{*}$

## Part IV

Allow 4 credits for each of four correct answers.

| $8 \$ 6,000$ | $[4] *$ |
| :--- | :--- |
| $9 \$ 723.40$ | $[4] *$ |

$10 \$ 575.96 \quad[4] *$
11 \$743.75 [4]*
$12 \$ 32.50 \quad[2]$
$\$ 32.50$ less $28 \%=\$ 23.40 \quad\left[{ }^{2}\right]$
*Unless otherwise directed, in parts II, III and IV of this examination partial credit may be allowed on questions to which four or more credits are assigned. [See pamphlet entitled Suggestions on the Conducting of Examinations and the Rating of Regents Examination Papers in Business Subjects.]

