Commercial Arithmetic (3rd Year): Technical School Examinations 1933

Department of Education: Technical Instruction Branch

Recommended Citation

COURSE IN COMMERCE.

AN ROINN OIDEACHAIS.
(Department of Education.)

BRAINSE AN CHEARD-OIDEACHAIS.
(Technical Instruction Branch.)

TECHNICAL SCHOOL EXAMINATIONS.
1933.

COMMERCIAL ARITHMETIC.
(Third Year.)

Tuesday, May 16th,—7 to 9 p.m.

Examiner—J. C. MacGuigan, Esq., b.comm.
Co-Examiner—J. F. Burke, Esq., d.sc.

General Instructions.

You are carefully to enter on the Answer Book and Envelope supplied your Examination Number and the subject of examination, but you are not to write your name on either. No credit will be given for any Answer Book upon which your name is written, or upon which your Examination Number is not written.

You must not have with you any book, notes or scribbling-paper.

You are not allowed to write or make any marks upon your paper of questions.

You must not, under any circumstances whatever, speak to or communicate with another candidate ; and no explanation of the subject of the examination may be asked for or given.

You must remain seated until your answer-book has been taken up, and then leave the examination-room quietly. You will not be permitted to leave before the expiration of twenty minutes from the commencement of the examination, and will not be re-admitted after having once left the room.

If you break any of these rules, or use any unfair means, you are liable to be dismissed from the examination, and your examination may be cancelled by the Department.

Two hours are allowed for this paper. Answer-books, unless previously given up, will be collected at 9 p.m.

INSTRUCTIONS.

Read the General Instructions on page 1.

(a) Not more than *six* questions may be attempted.

(b) Answers must be written in *ink*.

(c) Write the number of the question before the answer.

(d) All the working must be shown in the answer-book.

(e) Begin each question on a new page.

NOTE.—Books of logarithmic tables are provided.

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1. A merchant blends two kinds of tea which cost him £8 10s. 0d. and £6 per half cwt. respectively. By selling it at 3s. per lb. he gains 20 per cent. on the cost price. What is the cost price of the mixture, and in what proportions are the teas blended?

[12 marks.]

2. What is the cost in francs per kilogram of a commodity which is priced at $2.75 a lb., given that $3.85=£1, 86.15 francs=£1, and 1 lb.=453.6 grams.

[12 marks.]

3. One stock is paying a dividend of 6 per cent. per annum subject to Income Tax, while another is paying $4\frac{1}{4}$ per cent. free of Income Tax, which is 5s. in the £1. If the second stock is bought at 95, at what price should the former be bought to give the same net income on money invested?

[16 marks.]

4. A retailer marks his goods so as to obtain 25 per cent. on the sale price. During a sale he lowers all prices by 10 per cent. What is then his profit on the sale of goods which cost £100? By what percentage would he have to increase his total sales in order that his total profit might be as great as when he sold at a profit of 25 per cent.?

[18 marks.]

5. A rectangular area on a map measures 2.25 inches by 4 inches, and represents an area on the ground of 28,000 square yards. Find, to the nearest inch, how many inches on the ground are represented by a length of one inch on the map?

[16 marks.]

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6. A machine purchased for £450 10s. 0d. is expected to have a working life of 5 years, and to be then worth £35. It is desired to depreciate the machine annually at the same percentage of the balance brought forward. Calculate the rate required. (Use Logarithms.)

[18 marks.]

7. Represent graphically the figures given in the table below, and state what conclusions may be drawn from the graphs:

VALUE OF THE EXPORTS OF CERTAIN COMMODITIES FROM SAORSTÁT EIREANN, 1924 to 1930.

	Shirts and Collars	Linen Handkerchiefs	Stockings and Hose
1924	£80,500	£39,000	£47,500
1925	£94,000	£33,500	£43,000
1926	£88,750	£51,000	£29,500
1927	£96,750	£49,000	£28,500
1928	£70,000	£49,000	£31,750
1929	£67,500	£55,000	£26,500
1930	£83,500	£25,250	£19,750

[16 marks.]

8. In ten years a Saving Certificate which costs 16s. is worth 24s. What is the rate per cent. per annum Compound Interest to the nearest penny? (Use Logarithms.)

[16 marks.]