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SUBJECT CODE NO: - GOE-8862
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc (GOE) (NEP) SEM I
Examination November / December 2024
Mathematics (Business Mathematics-I)

[Time: 1:00 Hours]

[Max. Marks: 30]

Please check whether you have got the right question paper.

N. B

- 1) Question No. 1 is compulsory.
- 2) Attempt any four questions from question No. 2 to 7.

Q.1 Choose the correct alternative.

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(i) Ratio = _____

- (a) $\frac{\text{Amount}}{\text{Base}}$
(c) $\frac{\text{sales}}{\text{Amount}}$

- (b) $\frac{\text{Amount}}{\text{profit}}$
(b) $\frac{\text{profit}}{\text{Amount}}$



(ii) Gross profit compared with sales is called _____

- (a) Percent net margin (b) Percent gross margin
(c) Net margin (d) Gross margin

(iii) The payment period normally begin on the date of the _____

- (a) Invoice (b) Purchase
(c) Sales (d) Delivery

(iv) For the linear function $y = 3 + 2x$, if $x = -2$, then $y =$ _____

- (a) 1 (b) - 1 (c) 3 (d) -3

(v) Profit = _____

- (a) Revenue + cost (b) Revenue - sales
(c) Revenue + sales (d) Revenue - Expenses

Q.2 A Company has three branches A, B and C operating in small, medium-sized and large towns. The branches have the following performances during a month:

5

	A	B	C
Sales	\$12,500	\$46,500	\$63,200
Expenses	\$9,550	\$38,750	\$48,550

Find the profit and percent net margin for each branch.

Q.3 A paint is advertised for sale with a price of \$11.00 USD per gallon. Find the price in CAD/litter if 1 CAD = 0.73 USD Given 5

1 litter = 1.0567 quarts

1 gallon = 4 quarts.

Q.4 S and c sports receives an invoice for \$4,500 for a shipment of curling shoes. The In voice is dated April 1 and has terms 3/10, 2/15, n/30. On April 6, 5 and G sent in a payment of \$1000. The Curling equipment company gives discounts for partial payments. How much does S and G owe on the invoice? 5

Q.5 For each of the following linear equations find the intercept and the slope. 5

(a) $y = 6 + 3x$

(b) $t = 2n + 4$

Q.6 Solve the following system of linear equation by method of elimination. 5

$$h + 0.5g = 3,500$$

$$h + 1.5g = 4,500$$

Q.7 For a certain good there is a demand for 8,000 units when the price is \$8 per unit and a demand for 6,200 when the price is \$12 per unit. Assuming demand d, is a linear function of price p, find the slope of the line and the equation. 5
