

# 11<sup>th</sup> CLASS COMMERCE GROUP GUESS PAPER – 2022

## BUSINESS MATHEMATICS.

### 2. Write short answers to questions.

- i) Define proportion.
- ii) Define principal amount.
- iii) Define ordinary annuity.
- iv) What percentage of Rs. 120 is 84
- v) Define compound interest.
- vi) Find 40% of 300.
- vii) What are the types of discount?
- viii) Write the formula for sum of ordinary annuity.
- ix) Define compound interest.
- x) Find the compound interest due in case of Rs. 1000/- loaned for 5 years at 6% annually.
- xi) Divide Rs. 4800 in the ratio 5: 7

### 3. Write short answers to questions.

- i) Explain quadratic equation.
- ii) Write the formula of quadratic equation.
- iii) Define number system used in computer.
- iv) Find x if  $2x - 7 = 13$
- v) Define Linear equations.
- vi) Convert  $(35)_{10}$  in binary system.
- vii) Define singular and non –singular matrices.
- ix) Define reciprocal equations.
- x) Define row matrix
- xi) Convert  $(1011)_2$  in to decimal number system.

### SECTION – II

4. A watch was sold for Rs. 850 on 4 ½ loss. Find the cost price of the watch.
5. Find the compound interest in Rs. 5000 loaned for 6 years @ 12% per annum.
6. Convert  $5x + 2y = 10$  into intercepts form and identify x and y intercepts.
7. Using Cramer's rule, solve the following system of linear equations:  
$$\begin{aligned} 3x + 2y &= 12 \\ x + 5y &= 17 \end{aligned}$$
8.  $3x + 2y = 54$  by elimination method.  
 $2x - 3y = 10$
9.  $8x^2 - 14x - 15 = 0$  by using quadratic formula.
10. Evaluate:  $(11011)_2 \times (10001)_2$