

Business Mathematics - 11th Class Business Math Full Book Short Questions Preparation

Q1. What is meant by conditional equation?

Ans 1: Conditional Equation: An equation that is true for some values of variables and not true of others.

Ans 2: Example: The equation $2x-14=0$ is conditional because it is only true for $x=7$ Other values for x do not satisfy the equation.

Q2. Convert $7/8$ to a binary number.

Ans 1: $7/8 = 0.875$
 $0.875 \times 2 = 1.75$ 1 carry
 $0.75 \times 2 = 1.5$ 1 carry
 $0.5 \times 2 = 1$ 1 carry
 $7/8 = (0.111)_2$

Q3. Change into standard form 48:63:128.

Ans 1: 48:63:128 The given question is already in standard form.No further solution required. 48:63:128

Q4. Define variable quantities.

Ans 1: Variable Quantity: A quantity that can assume any of a set of values:

Ans 2: Variable: A variable is a symbol that can be replaced by any one of a set of different numbers.

Ans 3: Example: $y = f(x) = x + 6$ In above relation x is independent variable whereas y is dependent variable.

Q5. What is the basic rule of proportion?

Ans 1: Basic rule of proportion is product of mean is equal to product of extreme. If one value is unknown then we can easily find by this rule, proportion is equality between two ratios.

Q6. Define Principal.

Ans 1: Principal: The amount of money that is initially lent or invested in any business deal is called the principal.

Q7. Define domain of the function.

Ans 1: Domain: Domain is the "set of input values for which rule is definite"

Ans 2: Example: $f(x) = 2x - 3$ Domain of that function is all real values because function defined all real values.

Q8. What is the condition for two matrices to be conformable for multiplication?

Ans 1: Two matrices A and B are confirmed for multiplication AB, if number of columns of A is equal to number of rows of B. The new matrix AB will contain the number of rows as in A and number of columns as in B.

Q9. What is meant by interest?

Ans 1: Interest: Interest is just like a rent which is paid for having the use of money.

Ans 2: Explanation: Some corporations pay millions of rupees of interest each as for the use of money they have borrowed. We earn money on sums we have invested in saving accounts, certificates of deposits, and money market funds. We also pay for the use of money which we have borrowed for house loans, mortgages, or credit card purchases.

Q10. Write at least two key points of compound interest.

Ans 1: Important Key Points of Compound Interest: i) Principal keeps on charging from period to period.

Ans 2: ii) Amount of interest also keeps on changing from period to period.

Ans 3: iii) Rate of interest remains fixed for all periods.

Q11. Convert 23 into binary number system.

Ans 1: $23 = (10111)_2$

Q12. Define binary number system shortly.

Ans 1: Binary Number System: The number system with base 2 is known as binary number system.

Ans 2: Importance: The number system with base 2 is of particular importance due to its application in computer. The binary number "0" suggest to computer "off" and "1" "on".

Ans 3: Digits Involved: In binary number system only two digits "0" and "1" involve.

Q13. Define quadratic equation.

Ans 1: Quadratic Equation: An algebraic equation in one or more unknowns with maximum power of unknown as two is called quadratic equation.

Ans 2: Standard Form: The standard form of quadratic equation in single unknown x is given as under: $ax^2 + bx + c = 0$ Where a, b

and c are constant and $a = 0$

Q14. Find the equation in term of x and y $2 : y :: 3 : x$

Ans 1: $2 : y :: 3 : x$ Product of extreme = Product of mean $2 * x = 3 * y$
 $2x = 3y$
 $2x - 3y = 0$

Q15. Define reciprocal equation.

Ans 1: Reciprocal Equation: Equation of the form $ax^4 + bx^3 + cx^2 + bx + a = 0$ is called reciprocal equation. The point to remember for reciprocal equation is that the coefficient from the beginning and end are equal. Example: $x^4 + 4x^3 + 5x^2 + 4x + 1 = 0$

Q16. Write any two basic arithmetic operations.

Ans 1: The basic arithmetic operation are "addition" and "subtraction".

Q17. What is the condition for two matrices to be conformable for multiplication.

Ans 1: Two matrices A and B are confirmed for multiplication. AB, if number of columns of A is equal to number of rows of B. The new matrix AB will contain the number of rows as in A and number of columns as in B.

Q18. Define decimal number system.

Ans 1: The number system with base 10 is called decimal number system. The system of numbers, which we are using is known as decimal number system. In decimal number system, we use ten digits given as follows: 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9

Q19. Write any two basic arithmetic operations.

Ans 1: The four basic mathematics operations are:

Ans 2: i) Addition

Ans 3: 2) Subtraction

Ans 4: 3) Multiplication

Ans 5: 4) Division

Q20. Write the name of any two field in which annuity is used.

Ans 1: Several modern businesses as given below depend on the concept of an annuity:

Ans 2: i) Business of insurance companies.

Ans 3: ii) Business of leasing companies.

Ans 4: iii) Business of goods sold on installments.

Ans 5: iv) Business of bonds or debentures
