Algebraic Expressions and Identities

Question 1.
When numbers/literals are added or subtracted, they are called _____.
(a) identities
(b) expressions
(c) variables
(d) terms

Answer: (d) terms

Question 2.
The expression 7xy has the factors
(a) 7,x,y
(b) x,y
(c) 7,x
(d) 7,y

Answer: (a) 7,x,y

Question 3.
Which of the following is like term as 7xy?
(a) 9
(b) 9x
(c) 9y
(d) 9xy

Answer: (d) 9xy

Question 4.
The like terms of the following are
(a) x, 3x
(b) x, 2y

(c) 2y, 6xy
(d) 3x, 2y

Answer: (a) x, 3x

Question 5.
The coefficient in the term -5x is
(a) 5
(b) -5
(c) 1
(d) 2

Answer: (b) -5

Question 6.
How many terms are there in the expression $5xy + 9yz + 3zx + 5x - 4y$?
(a) 1
(b) 3
(c) 4
(d) 5

Answer: (d) 5

Question 7.
Which of the following is a monomial?
(a) $4x^2$
(b) $a + 6$
(c) $a + 6 + c$
(d) $a + b + c + d$

Answer: (a) $4x^2$

Question 8.
Add: $7xy + 5yz - 3zx$, $4yz + 9zx - 4y$, $-3xz + 5x - 2xy$.
(a) $5xy + 3zx + 5x - 4y$
(b) $5xy + 9yz + 2zx + 5x - 4y$
(c) $5xy + 9yz + 3zx + 5x - 4y$
(d) $5xy + 9yz + 3zx + 4y$

Answer: (c) $5xy + 9yz + 3zx + 5x - 4y$

Question 9.
Like terms in the expression 7x, $5x^2$, 7y, -5yx, $-9x^2$, are
(a) 7x, -5yx
(b) $5x^2$, -5yx
(c) $5x^2$, $-9x^2$
(d) 7x, 7y

Answer: (c) $5x^2$, $-9x^2$

Question 10.
The coefficient of x in the expression -7x +5 is
(a) 5
(b) -7
(c) 7
(d) 0

Answer: (b) -7

Question 11.
Expressions consists of _____ and _____.
(a) variables, constants
(b) identities
(c) expressions
(d) none of these

Answer: (a) variables, constants

Question 12.
The volume of rectangular box whose length, breadth and height is 2p,4q.8r respectively is
(a) 14pqr
(b) 2p+4q+8r
(c) 64pqr
(d) 64

Answer: (c) 64pqr

Question 13.
Which of the following is a binomial?

(a) 4x + y + 2
(b) 2x + 7
(c) 3x + 4y – 6
(d) 3x

Answer: (b) 2x + 7

Question 14.
The area of triangle is' xy' where' x' is length and 'y' is breadth. If the length of rectangle is increased by 5 units and breadth is decreased by 3 units, the new area of rectangle will be
(a) (x-y)(x+3)
(b) (xy+15)
(c) (x+5)(y-3)
(d) (xy+5-3)

Answer: (c) (x+5)(y-3)

Question 15.
Value of expression 'a(a^2+a +1)+5' for ' a' = 0 is
(a) a+5
(b) 1
(c) 6
(d) 5

Answer: (d) 5

Question 16.
n (4 + m) = 4n + ___
(a) 4m
(b) 4n
(c) 4mn
(d) nm

Answer: (d) nm

Question 17.
If x = 3 is solution of x^2 + kx + 15, value of k is
(a) k = -8, x = 3
(b) k = 8, x = 5

(c) k = 6, x = 5
(d) None of above

Answer: (a) k = -8, x = 3

Question 18.
How many terms are there in the expression 5 – 3xy ?
(a) 1
(b) 2
(c) 3
(d) 5

Answer: (b) 2

Question 19.
The expression x + y + z is in
(a) one variable
(b) no variable
(c) three variables
(d) two variables

Answer: (c) three variables

Question 20.
Terms are added to form _____.
(a) expressions
(b) terms
(c) identities
(d) none of these

Answer: (a) expressions

Question 21.
The number of terms in the expression $2x^2+3x+5$ is
(a) 1
(b) 2
(c) 3
(d) 5

Answer: (c) 3

Question 22.
Which of the following is an expression?
(a) $\frac{1}{2}$
(b) 3
(c) 3x-2
(d) 2

Answer: (c) 3x-2