Short Answer Type

Question 1
Which of these is a polynomial
(a) $\sqrt{y}+1$
(b) $\sqrt{2}+x+x^2$
(c) $y+\frac{1}{y}+y^2$
(d) $\frac{5\sqrt{x}+6x^3/2}{\sqrt{x}}$
(e) $\frac{x+1}{x-1}$

Question 2
True and false
(a) The degree of non-zero constant polynomial is zero
(b) The degree of the zero polynomial is well defined
(c) A binomial can have atmost two terms
(d) A binomial may have degree 6
(e) A polynomial cannot have more than one zero
(f) The degree of the sum of two polynomials each of degree 6 is always 6.
(g) 0 and 2 are the zeroes of y^2- 2y

Multiple choice Questions

Question 3
If $p+q+r=0$, then $p^3+q^3+r^3$ is equal to
(a) 0
(b) 3pqr
(c) 2pqr
(d) pqr

Question 4

Which of these identities is not true?

a) $(x+y)^2 = x^2 + 2xy + y^2$

b) $(x-y)^2 = x^2 - 2xy + y^2$

c) $x^2 - y^2 = (x+y)(x-y)$

d) $(x+y+z)^2 = x^2 + y^2 + z^2 + 3xyz$

Question 5

Find the coefficient of x^2 in $(x-1)(9x^2 - 3x + 1)$

(a)12
(b)-3
(c) 9
(d) -12

Question 6

If $x + \frac{1}{x} = 3$, then the value $x^2 + \frac{1}{x^2}$ is

(a) 7
(b) 4
(c) 1
(d) 3

Question 7

If $x^{61} + 61$ is divided by $x + 1$, the remainder is

(a) 0
(b) 1
(c) 60
(d) 59

Question 8

Find the value of a, if x - a is a factor of $x^3 - ax^2 + 2x + a - 1$

(a) 2/3
(b) 1/3
(c) 1
(d) 3

Question 9

if $x + \frac{1}{x} = 2$, then the value of $x^{10} + \frac{1}{x^{10}}$ is

(a) 2

(b) 0

(c) 1

(d) -1

Question 10

Degree of the quotient polynomials cannot be
(a) 0
(b) greater than degree of the reminder
(c) greater than degree of dividend
(d) None of the above

Factorization questions

Question 11
Factorize the below expression
(a) $49x^2 + 70xy + 25y^2$
(b) $4y^2 + 20y + 25$

Question 12
(c) $16x^2 + 4y^2 + 9z^2 - 16xy - 12yz + 24xz$
(d) $2x^3 - 3x^2 - 17x + 30$

Check the below link for the answers

https://physicscatalyst.com/Class9/polynomial-maths-test-paper.php