**MATHEMATICS**

ALGEBRAIC EXPRESSIONS

<img src="1\_Q.gif" >@<img src="1\_A1.gif" >@<img src="1\_A2.gif" >@<img src="1\_A3.gif" >@<img src="1\_A4.gif" >@None@0010

<img src="2\_Q.gif" >@ – 2a² + 2b²@ 2a² – 2b²@ 2a² + 2b²@ (2a² – 2b²)@0010

<img src="2\_Q.gif" >@5x + 4y@5x – 4y@– 5x – 4y@– 5x + 4y@0100

m -[m + {m + n – 2m – (m – 2)} – n]**=**@2n@3n@– 2n@– 3n@0010

Simplify : 85-[12x – 7(8x - 3) -2{10x - 5(2 - 4x)}]@44+104x @-44+104x @44-104x @-44-104@1000

<img src="5\_Q.gif" >@<img src="6\_A1.gif" ><img src="6\_A2.gif" ><img src="6\_A3.gif" >@<img src="60\_A2.gif" >@0100

a⁴ + 4a²b² + b⁴ is more than a⁴ – 8a²b² + b⁴ by -@12a²b²@– 12a²b²@2a⁴ + 2b⁴@None@1000

<img src="7\_Q.gif" ><br /><img src="8\_A1.gif" >@<img src="8\_A2.gif" >@<img src="8\_A3.gif" ><img src="8\_A4.gif" ><@@0001

Simplify: xy – [yz – zx – {yx – (3y – xz) – (xy – zy)}]@xy + 2zx + 3y@xy – 2zx – 3y@3xy + 2zx -3y @xy + 2zx – 3y@0001

Simplify: -3 (a + b) + 2 (2a – b) + 4a - 5@5 (a – b + 1)@5 (a + b + 1)@5 (a + b – 1)@5 (a – b –1)@0001

<img src="11\_Q.gif" >@107@– 107@701@– 701@0001

<img src="12\_Q.gif" >@<img src="12\_A1.gif" >@<img src="12\_A2.gif" >@<img src="12\_A3.gif" >@<img src="12\_A4.gif" >@<@1000

Simplify: 7 – [3x + {– 2y + 3z – (3y + 5z) + 8} – (3y² + 7x) + 9] @ – 1 + 4x – 3y – 3z + 3y²

@ – 10 + 4x + 5y + 2z + 3y²@ – 10 – 4x + 5y – 2z + 3y²@ – 1 + 14x – 5y + 2z + 3y²@0100

<img src="14\_Q.gif" **>**@6@8@10@16@0100

<img src="15\_Q.gif" **>**@then the value of x is -@1@2@– 1@1000

<img src="16\_Q.gif" **>**@<img src="16\_A1.gif" >@<img src="16\_A2.gif" >@<img src="16\_A3.gif">@<img src="16\_A4.gif" >@ 0001

If the present age of Jacob’s father is three times that of Jacob, after five years, sum of their ages would be 70 years, then the present age of Jacob’s father is -@39years@45years@54 years@60years@0100

The population of town A is 4800 more than town B. If 3100 people move from town B to town A, the population of town A will be 11 times that of town B. The original total population of the two towns is -@12580@12780@13200@13300@0010

If the sum of two numbers is 184 and one-third of the smaller number exceeds one-seventh of the larger number by 8, then the larger number is -@112@72@104@80@1000

A person has only 25 paise and 50 paise coins. In total he has 40 coins and the value of them is Rs. 12.50. Find the number of 50 paise coins he has -@10@15@25@20@1000

<img src="16\_Q.gif" **>**@is -@2@4@6@8@0010

<img src="22\_Q.gif" **>**@<img src="22\_A1.gif" >@<img src="22\_A2.gif" ><img src="22\_A3.gif" ><img src="22\_A4.gif" >@ @ @ None@0010

The degree of 3x²–9 is @1@2@3@4@0100

The expression x + y + 2 is@ Monomial@ Binomial@ Trinomial@ None of these@0010

The expression xyz is@ Monomial@ Binomial@ Trinomial@ None of these@1000

Add 5a²b, –8a²b and 7a²b@ –10a²b@4a²b@20a²b@10a²b@0100

Subtract (a² + b² – 2ab) from (a² + b² + 2ab)@–4ab@–2ab@4ab@2ab@0010

The degree of a polynomial ax⁵ – bx⁴ + c is @9@5@4@1@0100

The expression 4 (x –2) + 3 (x –1) is equal to @7x – 11@7x + 11@6x – 10@6x +10@1000

Which expression is equal to 5 (2x + 1 – x – 4)? @ 9x – 3@5x – 15@5x – 3@5x + 25@0100

Which one of the following is equivalent to the expression (2⁵) (26)?@2048@230@411@430@1000

A tanker contains 500 litres of water. Due to a small hole in the tanker, the quantity of water is decreasing at the rate of 9 litres every hour. What will be the quantity of water in the tank after 10 hours? @410 litres@491 litres@400 litres@90 litres@1000

Subtract the sum of (8a – 6a² + 9) and (–10a – 8 + 8a²) from – 3 is@2a² – 2a – 2@2a² – 2a + 4@ –2a² + 2a – 4@–2a² + 2a – 2 @0010

An expression is taken away from 3x² – 4y² + 5xy + 20 to obtain – x² – y² + 6xy + 20, then the expression is @4x² – 3y² – xy@2x² – 5y² + xy + 40@3y² – xy – 4x²@4x² + 3y² + xy@1000

By how much is a⁴ + 4a²b² + b⁴ more than a⁴ – 8a²b² + b⁴? @12 a²b²@–12a²b²@2a⁴ + 2b⁴@10a²b²@1000

Simplify (a³ – 2a² + 4a – 5) – (–a³ – 8a + 2a² + 5)@2a³ + 7a² + 6a – 10@2a³ + 7a² + 12 a – 10

@2a³ – 4a² + 12a – 10@2a³ – 4a² + 6a – 10@0010

Simplify the following expression x(y –z) – y (z – x) – z (x – y)@2x (y – z)@2y (z – x)@2x (z – y)@ None of these@1000

The coefficient of x² in the expression 3x³ –7x² + 5x + 9 is@3@7@–7@5@0010

Subtract (2a – 3b + 4c) from the sum of (a + 3b – 4c), (4a – b + 9c) and (–2a + 3c – b)

@ a – 4b + 4c@ a + 4b – 4c@ –a + 4b + 4c@ a + 4b + 4c@0001

If the value of 2x³ – 2x² + x – a equals to 5, when x = 2, then the value of ‘a’ is@4@5@3@6@B

The value of (0.05)³ is @ 0.000125@ 0.00125@ 0.0125@ 0.125@1000

The value of 7.75  0.25 is@31@0.0031@0.31@3.1@1000

Simplify –@4xy@8x² + 18y²@ 8xy@24xy@0001

The product of (a – b) (a + b) (a²+b²) is @ a²– b²@ a⁵ – b³@a⁴ – b⁴ @ a² + b⁴ @0010

What is the missing term in the following product? (2a³ – 3) (5a³ –2) = 10a⁶ + ........+ 6@ 19a³ @ –19a³ @ 16a³ @ –16a³ @0100

The value of n³ + 5n² + 5n – 2 when n = –2 is@16@0@–40@10@0100

The value of 9x² + 49y² – 42xy when x = 15 and y = 3 is@636@576@456@386@0100

Simplify: 4st (s – t) – 6s² (t – t²) – 3t² (2s²–s) + 2st (s – t) @ –st²@ –2st²@–3st²@–4st²@0010

Divide 2x³ – 4x² by 2x @ x² – 2x @ –x² + 4@ –x² + 4x@ x² + 4@1000

Divide –15x⁵ y⁴ z³ + 10x⁴ y⁴ z⁴ + 20x³ y²z by 5xyz @ –3x⁴ y³ z² – 2x³ y³ z³ + 4x² y@ –3x⁴ y³ z² + 2x³ y³ z³ + 4x² y@ –3x⁴ y³ z² + 2x³ y³ z³ – 4x² y@ 3x⁴ y³ z² – 2x³ y³ z³ – 4x² y@0100

<img src="51\_Q.gif" **>**@76@74@78@72@0010

<img src="52\_Q.gif" **>**@1/2, @-1/2,@0@ –2@1000

If the zero of the polynomial in ‘x’ is -5/4,then the polynomial is@4x – 5@5x – 4@ 5x + 4@4x + 5@0010

If A = – 8x² – 6x + 10, then its value when ‘x’ =1/2 is@6@4@5@7@0010

The third degree polynomial among the following is @2x³ – ¹+ 3x² – ¹5@3x⁴ – ¹ + 2x³ – ¹ + 6x² – ¹+ 8@3x² – ¹+ 4x–² + 5@2x⁵ – ³ + 3x⁴ – ³ + 7@0100

Among the following the expression which is not a monomial is@<img src="56\_A1.gif" >@147 x³ y²@<img src="56\_A3.gif" >@x³ y⁵ z<sup>12</sup>@0010

<img src="57\_Q.gif" **>**@ a² + 2a + 8@ a² + 3a + 18@ a² + 4a + 18@ a² + 5a + 18@0010

<img src="58\_Q.gif" **>**@– 8@– 10@– 9@– 11@0100

Degree of the polynomial p + q xm + rx<sup>m + 2</sup>+ 5x<sup>m + 3</sup> + x <sup>m + 4</sup>is@m@m + 2@m + 3@m+ 4@0010

<img src="60\_Q.gif" **>**@365@375@395@385@0001

<img src="61\_Q.gif" **>**@4@3@5@2@0010

<img src="62\_Q.gif" **>**@ @15@9@8@13@1000

In a polynomial 3x + 5 where x = a + 2, then its value when a = 8 is@25@45@35@40@0010

<img src="64\_Q.gif" **>**@<img src="64\_A1.gif" >@<img src="64\_A2.gif" >@<img src="64\_A3.gif" >@<img src="64\_A4.gif" >@@0010

The simplified form of 3x³ – 2x² – 8x – 6x² + 7x³ + 9x + 8x³ – 9x² + 6x is

@– 18x³ – 17x² + 7x@18x³ – 17x² – 7x@18x³ + 17x² – 7x@ 18x³ – 17x² + 7x@0100

The ascending order of the polynomials – 3x³ + 7x² – 9x⁴ + 6x – 8 is@– 8 + 6x + 7x² – 3x³ + 9x⁴ @– 8 – 6x – 7x² – 3x³ – 9x⁴ @– 8 + 6x + 7x² – 3x³ – 9x⁴ @8 + 6x + 7x² + 3x³ + 9x⁴ @1000

If A = – 7x – 3x – 5x and B = 9x + 3x + 2x, then A + B is@ 2x @ – 2x@ – x@ – 3x@C

<img src="68\_Q.gif" **>**@<img src="68\_A1.gif" >@<img src="68\_A2.gif" >@ – 2x@ 0@1000

The equivalent expression of 2x³ – 3x² – 8x – 3 is@3x³ – 5x³ + 7x² – 5x² – 8x + 10x – 4 + 1@3x³ – x³ – 5x² + 2x² – 9x + x – 7 + 4@4x³ – 6x² – 3x³ + 3x² + x² – 9x + 3x + 6 – 3@4x³ – 2x³ + 3x² – 5x² – 8x + 6x + 4 – 1@1000

The descending order of 4x² – 9x³ + 3x² – 9x⁴ + 3x³ – 9x² + 6x – 3x + 5 – 3 is @ – 9x⁴ + 6x³ – 2x² + 3x + 2@ – 9x⁴ – 6x³ + 2x² – 3x + 2@ – 9x⁴ – 6x³ – 2x² + 3x + 2@ – 9x⁴ + 6x³ – 2x² + 3x – 2 @0010

<img src="71\_Q.gif" **>**@ –6x³@ 6x³ @ 60x³ @ 16x³ @0100

If 2x – 3x + 5x = P, Q = – 8x + 3x + 9x and R = – 8x – 6x – 7x, then (P + Q) – R is@27x@28x@29x@26x@0010

If A = – 3x³ – 2x³ + 4x² – 2x², B = – 3x² + 5x² – 8x + 3x and C = 2x – 9x – 7 + 8,then A + B + C in simplified form is@– 5x³ + 4x² – 12x + 1@5x³ – 3x² – 12x + 1@– 5x³ – 4x²– 12x – 1@5x³ + 3x² + 12x + 1@1000

If 4x³ y² + 3x²y³ – 8x²y⁵ is added – 9x²y³ + 6x²y⁵ – 9x³ y⁴, then the result is@4x³ y² + 5x²y³ – 2x²y⁵ – 9x³ y⁴ @ 4x³ y² – 6x²y³ – 2x²y⁵ – 9x³ y⁴ @ 4x³ y² – 6x²y³ + 2x²y⁵ – 9x³ y⁴@ – 4x²y² – 6x²y³ – 2y²y⁵ – 9x³ y⁴@0100

If 0.5x³ + 1.85x³ + 2.96x³ – 4.71x³ is added to (1.25 x⁴ – 2.5x⁵ + 3.6x⁴ – 4.71x@, then the result is@0.6x³ + 2.36x⁴@– 0.6x³ – 2.36x⁴@0.6x³ – 2.36x⁴ @– 0.6x³ + 2.36x⁴@0010

If B = – 9x² + 3x – 7, then the additive inverse of B is@ 9x²– 3x – 7@9x²– 3x + 7@9x² – 3x – 7@ – 9x² + 3x + 7@0100

<img src="77\_Q.gif" **>** @x² – x + 1@– x² – x – 1@– x² + x – 1@ x² + x + 1@0010

<img src="78\_Q.gif" **>**@<img src="78\_A1.gif" >@<img src="78\_A2.gif" >@<img src="78\_A3.gif" >@<img src="78\_A4.gif" >@ @0100

<img src="79\_Q.gif" **>**@<img src="79\_A1.gif" >@<img src="79\_A2.gif" >@<img src="79\_A3.gif" >@<img src="79\_A4.gif" >@0001

If A = 2x³ – 9x² – 6x + 7 and A + B = 5x³ – 6x² – 8x + 9, then the polynomial (A + @ – A is@3x³ – 3x² – 2x + 2@3x³ + 3x² – 2x + 2@3x³+ 3x² + 2x + 2@– 3x³ – 3x² – 2x + 2@0100

If A = 4x³ – 9x²– 9x – 8 and A – B = – 2x³– 8x² – 6x – 2, then the polynomial B = A – (A – @ is@ 6x³ – x² – 3x – 6@6x³+x² + 3x + 6@6x³ + x² + 3x – 6@– 6x³ – x² 3x – 6@1000

Given A = 2x³ – 3x² + 6x + 7 and B = 4x³ – 9x² – 3x + 7, If C, D are additive inverses of A and B, then D – C is@ – 2x³ + 6x² + 9x@ – 2x³ + 5x² + 9x@ – 2x³ – 6x² + 9x@ – 2x³– 6x² – 9x@1000

If A – B = 2x³ – 3x² + 8x – 7 and B = 5x³ – 9x² + 6x – 8, where A = (A – @ + B, then the polynomial A is@ 7x³ – 12x² + 14x + 18@ 7x³ – 12x² + 14x – 15@ 7x³ – 12x² – 14x + 15@ – 7x³ + 12x² – 14x – 15@0100

<img src="84\_Q.gif" **>**@x² – x + 1@– x² – x – 1@x² + x – 1 @x² – x + 1@0010

If A = 7x³ – 2x² – 9x + 6, B = 2x³ – 8x² + 3x – 5, C = 2x³ – 4x² – 8x + 7, and D = – 3x³ – 5x² + 6x + 7, then (A – @ – (B – @ is@5x² – 2x – 11@5x² + 2x + 11@5x² – 2x + 11@– 5x² – 2x – 11@0100

The value of (3p – @3p + 5 is =\_\_\_\_\_\_\_@ 9p²–12p+5@9p²+12p–5@ 4p²+12p–5@9p²–12p–5@0001

The value of (t/2+6)(t/3–@ is =\_\_\_\_\_\_\_@<img src="87\_A1.gif" ><img src="87\_A2.gif" ><img src="87\_A3.gif" >@<img src="87\_A4.gif" >@<@0100

The value of (497)² is \_\_\_\_ ( using the indentity)@247006@247009@257006@2578009@0100

<img src="89\_Q.gif" **>**@<img src="89\_A1.gif" >@<img src="89\_A2.gif" >@<img src="89\_A3.gif" >@<img src="89\_A4.gif" >@0100

The expanssion of (3.2d–5f)² is \_\_\_\_\_\_\_\_\_\_\_\_\_\_@10.24d²+32df+25f²@10.24d²–25f²+32df@10.24d²–32df+25f²@10.24d²–32df–25f²@0010

Without actual multiplication, the value of (1001×1007) is =\_\_\_\_\_\_\_@10008007@ 1080007@10080007@1008007@0001

Without actual multiplication, the value of

(79.01×79.0@+2×79.01×20.99+(20.99×20.99) is =\_\_\_\_\_\_@10009@1000.05@10000@ 10007@0010

If (4x – 3 – 2x + 7)( – 3x – 4 + 5x + @is simplified, then the answer is \_@4x² + 2x – 12@14x² – 22x + 12@ 4x² + 2x + 12@– 14x² – 2x – 12@1000

If (x + 7)(x + @ + (x – @(x + 5) is simplified , then the answer is \_\_\_\_\_\_\_ @ 2x² + 13x + 11@ 2x² – 13x + 11@ 2x² – 13x – 11@ – 2x² – 13x – 11@1000

(12x³+@²+(6x³–@²=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_@ 180x⁶ –12x³+10@ 180x⁶ +12x³+10@ 180x⁶ –12x³–10@ 180x⁶ +12x³–10@1000

If A= 100²+100(5+@+5×3 and B= 100²–100(8+@+8×3, then A+B=\_\_\_\_\_@ 19735@ 19736@19739@19732@0010

<img src="97\_Q.gif" **>**@<img src="97\_A1.gif" >@<img src="97\_A2.gif" >@<img src="97\_A3.gif" >@<img src="97\_A4.gif" >@@0010

Using the identity the value obtained from the product 25.4×24.6 is@62.84@ 624.84@642.84@264.84@0100

Using the identity (a+b)(a–b) = a²– b², the value obtained from the product (2/5+x)(2/5–x)(4/25+x@ is \_\_\_\_@<img src="99\_A1.gif" >@<img src="99\_A2.gif" >@<img src="99\_A3.gif" ><img src="99\_A4.gif" >@1000

If (x – 3y)(x + 3y)(x² + 9y@ is simplified, then the answer is \_\_\_\_\_@ x⁴ + 81y⁴@ – 81y⁴ + x⁴@x⁴ – 81y⁴@– x⁴ – 81y⁴@0010