Department of Mathematics

SHORT ANSWER TYPE QUESTIONS- 7 QUESTIONS. (2 Marks each)

Q1.	Subtract $2a^2b - 4ab^2$ from $-3a^2b - 7ab^2$
Q2.	Simplify $-3x + (-5y) + x - (-4y)$
Q3.	Write the algebraic expressions for the following statements: i) Number 9 added to five times the product of numbers 'p' and 'q'. ii) Twice the product of the numbers 'a' and 'b' subtracted from the sum of numbers 'a' and 'b'.
Q4.	Identify the numerical coefficients of terms (other than constants) in the following expressions: i) $2a^2b - 4ab^2 - 7$ ii) $x^2y^2 - 7y - 6x^3$
Q5.	Classify into monomials, binomials and trinomials. i) $1 + x + x^2$ ii) $-4mn$ iii) $xyz - 7$ iv) $-a^2b + 7pq$
Q6.	State whether the given pairs is like or unlike terms. i) $1, 41$ iii) $40mn, 40nm$ ii) $-7x, -\frac{2}{11}x$ iv) $-5m^2p, -5mp^2$
Q7.	Identify terms which contain x^2 and give the coefficient of x^2: i) $3x^2 + 5y$ ii) $7x^2y - 11xy^2 + 2x^2$

SHORT ANSWER TYPE- 5 QUESTIONS. (3 Marks each)

Q8.	A lady works $3t$ hours each day from Monday to Friday. She works $(5t + a)$ hours on Saturdays. She does not work on Sundays. a) Express the working hours in a week in terms of t and a. b) How many hours does she work each week when $t = 4$ and $a = 5$.

Q9.	Find the perimeter of a square whose each side measures $(x^2 - 2x + 4)$cm.
Q10.	The perimeter of a triangle whose two sides are $(2x + 15)$cm and $(3x - 20)$cm is $(7x - 50)$cm. Find its third side. (CBQ)
Q11.	Identify the terms and their factors in the following expressions and show the terms and factors by tree diagrams. $13a^2 + 7y^2 - 3ay + 6$ b) $-9xy^2z + 5xyz^2$
Q12.	If A+B=$-7mn + 3m$ and A=$5mn - 2m$, find the value of B (CBQ)

LONG ANSWER TYPE- 3 QUESTIONS. (4 Marks each)

Q13.	If P = $5x^3 - 4x^2 + 3x - 1$, Q= $2x^3 - 3x^2 - 3x + 3$, R = $-x^2 + x^3 - x + 2$. Find: i) P + Q + R ii) P −Q−R (CBQ)
Q14.	Tanvi, Hetvi and Himadri collected clothes for a charity. The weight of the boxes of clothes are $-4p^2 + 5qz - a$ $grams$, $10p^2 - 7qz + 9a$ $grams$ and $-5p^2 + 2qz + 3a$ $grams$. Find their total weight.
Q15.	Rohan's mother gave him ₹$3xy^2$ and his father gave him ₹$(xy^2 + 2)$. Out of this total money he spent ₹$(10 - 3xy^2)$ on his birthday party. How much money is left with him?

ANSWERS						
Q1.	$-5a^2b - 3ab^2$	**Q2.**	$-2x - y$	**Q3.**	i)$9 + 5pq$ ii)$(a + b) - 2ab$	
Q4.	$i)2, -4$ $ii)\ 1, -7, -6$	**Q5.**	i) Trinomial ii) Monomial iii) Binomial iv) Binomial	**Q6.**	i) Like ii) Like iii) Like iv) Unlike	
Q7.	i) $3x^2, 3$ ii) $7x^2y, 7y$ $2x^2, 2$	**Q8.**	$20t + a$, 85	**Q9.**	$4x^2 - 8x + 16$	
Q10.	$2x - 45$	**Q12.**	$-12mn + 5m$	**Q13.**	i)$8x^3 - 8x^2 - x + 4$	
Q13.	ii)$2x^3 + 7x - 6$	**Q14.**	$p^2 + 11a$	**Q15.**	$7xy^2 - 8$	