

**BCM SCHOOL, BASANT AVENUE, DUGRI, LUDHIANA.**  
**APRIL ASSIGNMENT ANSWER KEY (2025-26)**  
**CLASS- IX (MATHEMATICS)**  
**TOPIC: NUMBER SYSTEM, POLYNOMIALS**

**SECTION –A (MULTIPLE CHOICE QUESTIONS)**

|    |                                                    |
|----|----------------------------------------------------|
| 1. | (b) 18                                             |
| 2. | ( c) 2                                             |
| 3. | (d) Assertion (A) is false and Reason (R) is true. |

**SECTION – B( 2 MARKS QUESTIONS)**

|    |                                                                                                                              |
|----|------------------------------------------------------------------------------------------------------------------------------|
| 4. | $a^2 + b^2 - 2ba + 2bc - 2ca = (a-b)^2 + 2c(b-a)$<br>$a^2 + b^2 - 2ba + 2bc - 2ca = (a-b)^2 - 2c(a-b)$<br>$= (a-b) (a-b-2c)$ |
| 5. | $(x - y)^3 = 5^3$<br>$x^3 - y^3 - 3xy(x-y) = 125$<br>$x^3 - y^3 - 3(84)(5) = 125$<br>$x^3 - y^3 = 1385$                      |

**SECTION – C (3 MARKS QUESTIONS)**

|    |                                                                                                                            |
|----|----------------------------------------------------------------------------------------------------------------------------|
| 6. | $125x^3 + 27y^3 + 8z^3 - 90xyz = (5x+3y+2z) (25x^2 + 9y^2 + 4z^2 - 15xy - 6yz - 10zx)$                                     |
| 7. | Take $f(2) = 0$ we get $4p + 10 + r = 0$<br>$f(1/2) = 0, p + 10 + 4r = 0$<br>Equating both the equations<br>We get $p = r$ |

**SECTION – D (5 MARKS QUESTIONS)**

|    |                                                                                                                                                                                                                                             |
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| 8. | $f(z) = az^3 + 4z^2 + 3z - 4$<br>$f(3) = a(3)^3 + 4(3)^2 + 3(3) - 4 = 27a + 36 + 9 - 4 = 27a + 41 \dots (i)$<br>$g(z) = z^3 - 4z + a$<br>$g(3) = (3)^3 - 4(3) + a = 27 - 12 + a = 15 + a \dots (ii)$<br>$f(3) = g(3)$<br>Equating, $a = -1$ |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|