

Therefore  $(x-2z) + (x+y+z) - \{ (x+y) + (x-z) \} = 0$

$$= a^2 - a^2 + a + a + 1 - 1$$

$$= a + a = 2a$$

$$(16) (x+y-2z) + (2x-y+z) - (x+y+z)$$

$$= 2x - y - 2z$$

(7) The value of terms as per the question is

calculated as shown below

$$= 3a - 2b + 4c + 3b - 2c - a + b + c$$

$$= 2a + 2b + 3c$$

(8) The value of terms per the question is

$$(3x + y + z) + 3x + y - 3z - (x - 2y - z)$$

$$= -3x + 2y - z$$

$$(9) (x - 2z) + (x + y + z) - \{(x + y) + (x - z)\}$$

$$= x + x - x - x + y - y + z + z - 2z = 0$$

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$$(v) 2ab + cd - ac - 2bd \text{ from } ab - 2cd + 2ac + bd$$

$$= ab - 2ab - 2cd - cd + 2ac + ac + bd + 2bd$$

$$= ab - 3cd + 3ac + 3bd$$

$$(vi) (bc - ca + ab) - (ab + bc - ca)$$

$$= bc - bc - ca + ca + ca + ab - ab$$

$$= ca$$

$$(vii) (3x + 5y - 4z) - (5x - 6y - 3z)$$

$$= 3x - 5x + 5y - 6y - 4z + 3z$$

$$= -2x - y - z$$

$$(viii) [(1/2)p + (1/3)q - (3/2)r] - [(-3/2)p + q$$

$$- r]$$

$$= 2p - (4/3)q - (1/2)r$$

$$(ix) (a^2 + a + 1) - (1 - a + 2a^2)$$

(i)  $5a - 3b + 2c$  from  $a - 4b - 2c$

$$= 2 - 5a - 4b + 3b - 2c - 2c$$

$$= -4a - b - 4c$$

(ii)  $4x - 6y + 3z$  from  $8x + 12y - 2z$

$$= 12x - 4x + 7y + 6y - 2z - 3z$$

$$= 8x + 13y - 2z$$

(iii)  $8 - a - 4b + 4c$  from  $3a - 7b + 2c$

$$= 5a - 7b + 4b + 2c - 4c - 8$$

$$= 6a - 3b - 2c - 8$$

(iv)  $-8x - 12y + 17z$  from  $x - y - z$

$$= x + 8x + 12y - y - z - 17z$$

$$= 9x + 11y - 18z$$



$$= -3 + 4x - 9$$

$$x^2 - 5xy -$$

$$-2b$$

$$1a - b$$

$$= a + 7a + 15b - 3b$$

$$= 8a + 12b$$

$$(iv) (8x + 7y) - (4y - 3x)$$

$$= 8x + 3x + 7y - 4y$$

$$= 11x + 3y$$

$$(v) 7 - (4a - 5)$$

$$= 7 - (4a - 5)$$

$$= 7 - 4a + 5$$

$$= 12 - 4a$$

$$(vi) (6y - 13) - (4 - 7y)$$

$$= 6y - 13 - 4 + 7y$$

$$= 13y - 17$$

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$$(ii) (-x^2 - 3xy + 3y^2 + 8) + (3x^2 - 5y^2 - 3 + 4xy) \\ + (-6xy + 2x^2 - 2 + y^2) \text{ is } = 4x^2 - 5xy - \\ y^2 + 3$$

$$(iii) a^3 - 2b^3 + a + a^2b^3 - 2a^3 + b \text{ and } -2b \\ + 2b^3 - 5a + 4a^3 = 3a^3 + b^3 - 4a - b$$

$$(3)(i) 3a - (a + 2b) \\ = 3a - (a + 2b) \\ = 3a - a - 2b \\ = 2a - 2b$$

$$(ii) (5x - 3y) - (x + y) \\ = 5x - x - 3y - y \\ = 4x - 4y$$

$$(iii) (8a + 15b) + (3b - 7a) \\ = (8a + 15b) + (3b - 7a)$$

$$= 8a + \\ = 15a + 1$$

$$(iv) (8x + 7) \\ = 8x + 7 \\ = 11x + 7$$

$$(v) 7 - (4) \\ = 7 - 4 \\ = 3$$

$$(vi) (6y) \\ = 6y \\ = 12y$$

Ex 19 (B)

Find the sum of:

(i)  $3a + 4b + 7c - 5a + 3b - 6c$  and  $4a - 2b - 4c$

We get =  $2a + 5b - 3c$

(ii)  $2x^2 + xy - y^2, -x^2 + 2xy + 3y^2$

$3x^2 - 10xy + 4y^2$

(iii)  $x^2 - x + 1$  and  $-x^2 - 2x$

(iv)  $(x^2 - x + 1), (-5x^2 + 2x - 2)$  and  $(3x^2 - 3x + 1)$

=  $2x^2 + 2x - 2$

(v)  $(a^2 - ab + bc), (2ab + bc - 2a^2)$

=  $x^2 + 5 + 6x$

(2) The sum of  $(-17x^2 - 2xy + 23y^2), (-9y^2)$

$(-16x^2 + 7xy - 11x^2 + xy + 17y^2)$