

19(A)

- (i)  $5+4=9$  and  $5x+4x=9x$
- (ii)  $12+18=30$  and  $12x^2y+18x^2y=30x^2y$
- (iii)  $-7+16=23$  and  $7a+16b=7a+16b$
- (iv)  $1+3=4$  and  $x^2y+3xy^2=x^2y+3xy^2$
- (v)  $7-4=3$  and  $7ab-4ab=3ab$
- (vi)  $12-5=7$  and  $12x-5y=12x-5y$
- (vii)  $35-16=19$  and  $35ab-16ba=35ab-16ba$
- (viii)  $28-13=15$  and  $28ax^2-13a^2x=28ax^2-13a^2x$
- (ix) (i) The sum of  $-2$  and  $-5= -7$  and the sum of  $-2x$   
and  $-5x= -7x$
- (ii) The sum of  $8$  and  $-3= 5$  and the sum of  $8ab$  and  $-3ab= 5ab$
- (iv)  $15+8+3=26=15x+8y+3x=18x+8y$

$$(v) \quad 12 - 9 + 15 = 18 \text{ and } 12ab + 9ab + 15ba = 18ab$$

$$(vi) \quad 25 - 7 - 9 = 9 \text{ and } 25xy - 7xy - 9yx = 9xy$$

$$(vii) \quad -4 - 6 - 5 = -15 \text{ and } -4ax - 6ax - 5ay = -15ax$$

$$(3)(i) \quad 8xy \text{ and } 3xy$$

$$= 8xy + 3xy = 11xy$$

$$(ii) \quad 2xyz + xyz + 6xyz = (2+1+6)xyz = 9xyz$$

$$(iii) \quad -2a + 3a + 4b = a + 4b$$

$$(iv) \quad 3x + 2y = 3x + 2y$$

$$(v) \quad 5m + 3n + 4p = 5m + 3n + 4p$$

$$(vi) \quad 6a + 3a + 9ab = 9a + 9ab$$

$$(vii) \quad 3p + 4q + 9q = 3p + 13q$$

$$(viii) \quad 5ab + 4ba + 6b = 9ab + 6b$$

$$(ix) \quad 50pq + 30pq + 10pr = 80pq + 10pr$$

$$(x) \quad (-2y) - (-y) + (-3y)$$

$$= -6y$$

$$(xi) \quad (-3b) + (-b)$$

$$= -4b$$

$$(xii) \quad 5b + (-4b) + (-10b)$$

$$= 9b$$

$$(xiii) \quad (-2c) + (-c) + (-5c)$$

$$= -8c$$

$$(4)(i) \quad 6a - a - 5a + (-2a)$$

$$= 6a - 8a = -2a$$

$$(ii) \quad 2b - 3b - b + 4b$$

$$= 6b - 4b = 2b$$

$$(iii) \quad 3x - 2x - 4x + 7x$$

$$= 10x - 6x = 4x$$

$$(i) \quad 5ab + 2ab - 6ab + ab \\ = 8ab - 6ab = 2ab$$

$$(v) \quad 8x - 5y - 3x + 10y \\ = 5x + 5y$$

$$(3)(i) \quad 7x + 9x + 2x - 2x \\ = 11x - 9x = 2x$$

$$(ii) \quad 3ab - 2ab - 8ab + 6ab \\ = 11ab - 10ab = ab$$

$$(iii) \quad -8a - 3a + 12a + 13a - 6a \\ = 25a + 17a = 8a$$

$$(iv) \quad 19abc - 11abc - 12abc + 14abc \\ = abc(33 - 23) = 10abc$$

$$(6) (i) 6ba - 4ab = 2ab$$

$$(ii) 68b - 4 \cdot 8b = 2b$$

$$(iii) 10 \cdot 5abc - 3 \cdot 5abc = 7abc$$

$$(iv) 3 \frac{1}{2} mn, 8 \frac{1}{2} nm = 5mn$$

$$(7) (i) 2a^2b^2 + 5ab^2 + 8a^2b^2 = 3ab^2$$

$$= 10a^2b^2 + 2ab^2$$

$$(ii) 4a + 3b - 2a - b$$

$$= 2a + 2b$$

$$(iii) 2xy + 4yz + 5xy + 3yz - 6xy$$

$$= x + 7yz$$

$$(iv) ab + 15ab - 11ab - 2ab$$

$$= 3ab$$

$$(v) 6a^2 - 3b^2 + 2a^2 + 5b^2 - 4a^2$$

$$= 4a^2 + 2b^2$$

$$(vi) 8abc + 2ab - 4abc + ab$$

$$= 4abc + 3ab$$

$$(vii) \quad 9xyz + 15yxz - 10zyz - 2zxy$$

$$= 24xyz - 12xyz = 12xyz$$

$$(viii) \quad 13pqr + 2p + 4q - 6pqr + 5pqr$$

$$= 12pqr + 2p + 4q$$

$$(ix) \quad 4ab + 0 - 2ba$$

$$= 2ab$$

$$(x) \quad 6x^2y - 2xy^2 + 5x^2y - xy^2$$

$$= 11x^2y - 3xy^2$$