

INTRODUCTION TO ALGEBRA

Class: VI, Mathematics

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SOLUTIONS

(F)

TEACHING TASK

01. $2(x+3) = 2x+6$

Ans: A

02. Constant term = -2

Ans: C

03. Constant term = 5

Ans: C

04. $2xy, 4yx$

Ans: A, C

05. $3x+y^2$

Ans: C

06. $2y+3x-16x$

Ans: A

07. $A=bh$

Ans: A

08. $-a^2b^2c^2$

Ans: —

09. xyx

Ans: C

10. $2+2=4$

Ans: B

11. Like terms of $x \rightarrow 3x, -7x$

Ans: A, C

12. Binomial $\rightarrow 3x^2-2x, 7pq-2$

Ans: C, D

B Multinomial $\rightarrow 2x^3-4x^2+5x-1$

Ans: A

ADVANCED LEVEL

01. Binomials $\rightarrow x^2+2y^2, \cancel{ab+4ab}^2_0$
 $z+7$

Ans: A, C

02. Binomials $\rightarrow 2x-4y, 6x+9$

Trinomials $\rightarrow 3a^2-5ab+2b^2, 2xy-7x+5$



03.	Conceptual	(2) Ans: A, C, D
04.	Conceptual	Ans: A
05.	Conceptual:	Ans: A
06.	Conceptual	Ans: A, B, C
07.	1	Ans: A
08.	3	Ans: 3
09.	5	Ans: 5

10 a) $x^2 - 3x = 2^2 - 3 \cdot 2$
 $= 4 - 6 = -2$

b) $2x^2 + 3 - 8$
 $= 2(2)^2 + 3 - 8 = \cancel{8} + 3 - \cancel{8} = 3$

c) $x^5 - 33 = 2^5 - 33 = 32 - 33 = -1$

d) $16 - 5x = 16 - 5 \times 2 = 16 - 10 = 6$

Ans: q, r, s, p

11 a) $\frac{pq}{4}$ b) $x + 10y$ c) $3x + 9y$ d) $p^2 + q^3$

Ans: r, p, s, q

LEARNER'S TASK

Ques

01. $2x + y^3$

Ans: D

02. -2

Ans: D

03. $2q^2$

Ans: C

04. 3

Ans: C

05. $3x^2 + 2x$

Ans: B

06. 5

Ans: C



07	$x+2$	Ans: B
08	a, b, x	Ans: D
09	$4-2x$	Ans: B
10	$a^2 b^2 c^2$	Ans: B
11	$-\frac{1}{2}$	Ans: C
12	$3xy + 4xy^2 - 7xy + 5x^2y$ $= 4xy^2 + 5x^2y - 4xy$ No. of terms = 3	Ans: B
13	xyx	Ans: C
14	$2+2=4$	Ans: B
15	$-7x$	Ans: C

JEE MAINS LEVEL

01	$\left(\frac{4}{9}\right)^{25}$	Ans: A
02	$\frac{3}{2} \times a \times b \times b \times c \times c \times c$	Ans: B
03	$x^{p+q+r} \cdot x^{-p} \cdot x^{-q} \cdot x^{-r} = x^0 = 1$	Ans: C
04	$6a^9$	Ans: D
05	$4x+10$	Ans: B
06	$\frac{4}{5}y, y, -3y$	Ans: C
07	$2+2=4$	Ans: C
08	$2x^3 - \frac{4}{x^2} + 9$	Ans: B

09. $x+6 < 0$ Ans: D
10. -3 Ans: B
11. $3x+y^2$ Ans: C
12. $2y+3x-16x$ Ans: A
13. $A=bh$ Ans: A
14. $2q+3r-5 = 3(2)+3(3)-5$
 $= 6+9-5$
 $= 10$ Ans: —
15. $2p^2-3p+1 = 2(5)^2-3(5)+1$
 $= 50-15+1$
 $= 36$ Ans: —

ADVANCED LEVEL QUESTIONS

01. $3x, 2x^3y$ Ans: B, C
02. $2+4=6$
Degree: 6 (or) max {5, 6} Ans: B, C
03. $2x-3=7$
 $\Rightarrow 2x=7+3$
 $\Rightarrow 2x=10$
 $\Rightarrow x=5$ Ans: B
04. Statement I: (True)
Statement II: False Ans: C
05. Conceptual Ans: A
06. Conceptual Ans: A

07 Penta nomial

(5) Ans: D

08 $2+3$, $2xy$

Ans: B, C

$$9 \quad 2y^3 + y - 6 = 2(3)^2 + 3 - 6 \\ = 18 - 3 = 15$$

Ans: 15

10 15

Ans: 15

11 5

Ans: 5

$$12 \quad 2\left(x + \frac{1}{x}\right) = 2\left(2 + \frac{1}{2}\right) = 5$$

Ans: 5

13 $a \rightarrow q$, $b \rightarrow r$, $c \rightarrow p$, $d \rightarrow s$

$\Rightarrow$ THE END $\Leftarrow$