

# INTEGRATED<sup>+</sup>

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Class: VII, MATHEMATICS

## 3. ALGEBRAIC EXPRESSIONS

### TEACHING TASK (JEE MAINS)

01.	5	Ans: C
02.	2 terms	Ans: B
03.	Degree = $1+2+3 = 6$	Ans: D
04.	$\frac{6}{11}$	Ans: C
05.	$2x, 9x$	Ans: A
06.	78	Ans: C
07.	$-2x$	Ans: A
08.	$4p^2 - 1$	Ans: C
09.	$2xy + 3 - 4xy^2 + 7 = 2xy - 4xy^2 + 10$ 3 terms	Ans: C
10.	trinomial and cubic	Ans: D
11.	$3mn + 7, m^2n^2 - mn$	Ans: D
12.	$4p - 7$	Ans: D
13.	$3(x-2) > 2x+5$ $\Rightarrow 3x-6 > 2x+5$ $\Rightarrow x > 11$	Ans: D
14.	$3x^2, 7x^2, -9x^2$	Ans: A, C, D
15.	All are polynomials	Ans: A, B, C, D

16.	$3x - 5y, 2m + n \rightarrow$ Binomials $4pq - 2r + s, 7a + b + 3c \rightarrow$ Trinomials	Ans: A, B, C, D
17.	<u>Statement I:</u> Mathematically (True) <u>Statement II:</u> Conceptual (True)	Ans: A
18	<u>Statement I:</u> $(x^2 y^3)^n = x^{2n} \cdot y^{3n}$ (True) <u>Statement II:</u> Conceptual (True)	Ans: A
19.	<u>Assertion:</u> Conceptual (False) <u>Reason:</u> Conceptual (True)	Ans: D
20.	<u>Assertion:</u> Conceptual (True) <u>Reason:</u> Conceptual (False)	Ans: <del>C</del>
21)	<u>Assertion:</u> Conceptual (True) <u>Reason:</u> Conceptual (False)	Ans: C
22.	$4m, -6m$	Ans: C
23	$8x^2, 2x$	Ans: D
24.	$7xy, 8xy, -9xy$ all are like terms	Ans: D
25	<del>are</del> are poly $2 + 3, x^2 + 7x^2 + x + 1$	Ans: D
26.	1	Ans: A
27	0	Ans: 0
28	$4x^3, x = 2, 4(2)^3 = 4 \times 8 = 32$	Ans: 32

29 a) Degree  $2+1=3$  (S) | c) Degree =  $1+2+1=4$  (S) <sup>(3)</sup>  
 b) Degree = 1 (Q) | d) Degree = 2 (P)  
 Ans: S, Q, R, P

30 a)  $\frac{pq}{4}$  (r) c)  $3x+9y$  (S)  
 b)  $x+10y$  (P) d)  $p^2+q^3$  (Q) Ans: R, P, S, Q

### LEARNERS TASK (CUES)

01. Conceptual Ans: C

02.  $7xyx$  Ans: C

03. Negative powers Ans: C

04.  $5y-2$  Ans: B

05. Conceptual Ans: B

06.  $4a-2b+7$  Ans: B

07. Unknown numbers Ans: C

08.  $-7x$  Ans: C

09.  $3x^2-2x$  Ans: C

10. All are multinomials Ans: D

11.  $2x+y^3$  Ans: D

12. 5 Ans: C

13.  $x+2$  Ans: B

14.  $a, b, x$  Ans: D

(11) Ans: B

15.  $4 - 2x$

10. JEE MAINS

01.  $2a, 3b$

Ans: C

02.  $\frac{99}{a} - \frac{4}{a} \rightarrow$  No. of terms

Ans: B

03. Degree =  $2 + 1 = 3$

Ans: C

04.  $a$  &  $b$

Ans: B

05. Monomial

Ans: A

06.  $\frac{8}{5}$

Ans: B

07. 3

Ans: C

08. Trinomial, Cubic

Ans: C

09.  $\frac{4}{5}y, y, -3y$

Ans: C

10.  $2x^3 - \frac{4}{x^2} + 9$

Ans: B

11.  $6a^2 - 4ab + 1$

$= (6a^2)^2 + (-4ab)^2 + (1)^2$

$= 36a^4 + 16a^2b^2 + 1 \rightarrow$  Trinomial

Ans: C

12.  $x + 6 < 0$

Ans: D

13. -3

Ans: B

JEE ADVANCED

14.  $\frac{3}{y} - 2, 6 - \frac{p}{q}$

Ans: B, D

15.  $9p^2, -\frac{4}{q}, 7$

Ans: A, B, C

16.	All are multinomials	Ans: A, B, C, D (5)
17.	<u>Statement I:</u> Conceptual (True) <u>Statement II:</u> Conceptual (True)	Ans: A
18.	<u>Statement I:</u> Conceptual (False) <u>Statement II:</u> Conceptual (False)	Ans B
19.	<u>Assertion:</u> Conceptual (True) <u>Reason:</u> Conceptual (True)	Ans: A
20.	<u>Assertion:</u> Constant term = 7 (False) <u>Reason:</u> Conceptual (True)	Ans: D
21.	<u>Assertion:</u> Conceptual (False) <u>Reason:</u> Conceptual (True)	Ans D
22.	$6 + \frac{4}{2}$	Ans: A
23.	All are algebraic Expression	Ans: D
24.	$x + 7$	Ans: C
25.	1.	Ans: A
26.	Degree = $2 + 2 = 4$	Ans: D
27.	Literals a, b, C	Ans: 3
28.	4	Ans: 4
29.	$2(x + \frac{1}{x}) \rightarrow 2(2 + \frac{1}{2}) \rightarrow 2 \times \frac{5}{2} = 5$	Ans: 5

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a)  $7x \rightarrow 7 (r)$

b)  $-3y^2 \rightarrow -3 (s)$

c)  $\frac{5}{2}z \rightarrow \frac{5}{2} (p)$

d)  $9xy \rightarrow 9 (q)$

Ans: r, s, p, q

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a)  $x + \frac{1}{x} \rightarrow$  Algebraic Expression (s)

b)  $2x^2 + 2 \rightarrow$  Binomial (p)

c)  $x^2 - x + 3 \rightarrow$  Trinomial (q)

d)  $2(x^2 - 2x + 3) \rightarrow$  Polynomial (r)

Ans: s, p, q, r

 $\Rightarrow$  THE END  $\in$