

INTEGRATED

(1)

Class: VI, MATHEMATICS

5. INTRODUCTION TO ALGEBRA

Teaching Task (JEE MAINS)

01. All are Algebraic expressions Ans: —

02. $\frac{7}{y}$ Ans: B

03. $5x+9$ Ans: A

04. True statement Ans: A

05. $3+4=7$ Ans: B

06. 4 Ans: C

07. $5y-2$ Ans: B

08. $4p^2-1$ Ans: C

09. $2xy+3-4xy^2+7 = 2xy-4xy^2+10$ Ans: C

10. $2xy-3xy+4 \rightarrow$ Trinomial, cubic Ans: D

11. $3mn+7, m^2n^2-mn$ Ans: D

12. $p \rightarrow$ Variable, $4p-7 \rightarrow$ Binomial Ans: D

13. $\frac{6}{x} = 3 \Rightarrow x = 2$ Ans: B

JEE ADVANCED

14. $-\frac{7}{2} x^2 y$.

(2)

(A) Coefficient = $-\frac{7}{2}$, (B) Degree = 3 Ans: A, C

15 Open Sentences

A) $5x-3=7$, C) $\frac{2}{y}+1=5$ (B) Ans: A, C

16

$3x-5y$ } Binomial
 $2m+n$ }
 $4pq-2r$ }

$7a+b+3c$ } Multinomial

Ans: A, B, C, D

17 Statement I: $\frac{3}{x}+5$ → Coefficient of $\frac{1}{x}$ is 3
(True)

Statement II: Conceptual (False) Ans: C

18 Statement I: ~~Conceptual~~ (True)

Statement II: Conceptual (False) Ans: C

19. Assertion: ~~Conceptual~~ (False)

Reason: Conceptual (True) Ans: D

20. Assertion: Conceptual (True)

Reason: Conceptual (True) Ans: A

21. Assertion: Conceptual (True)

Reason: Conceptual (True) Ans: A



(3)

Ans: C

22. -6

23. $-4a + 9b - 3$

Variables = a, b

Ans: B

24. ~~$3x + 2 = 5$~~ \rightarrow statement
 $3 + 2 = 5$

Ans: A

Q5 $3x + 2 = 5 \rightarrow$ open sentence

Ans: B

26. $7p + 9q + 8 - 11.$

No. of terms contain variables = 3

Ans: 3

Ans: 32

27. $4 \times 2^3 = 4(2)^3 = 4 \times 8 = 32$

- 28. a) Trinomial (x)
- b) Binomial (p)
- c) ~~Binomial~~ monomial (q)
- d) 12 (constant) (s)

Ans: x, p, q, s

29. a) $\frac{p^2}{4}$ (x)

b) $x + 10p$ (p)

c) $3x + 9y$ (s)

d) $p^2 + q^3$ (q)

Ans: x, p, s, q

LEARNERS TASK (CUCIS)

01. All are Algebraic Expressions

Ans: —

02. Constant

Ans: B

03. 3

Ans: C

04	Term	Ⓔ Ans: A
05	$\frac{4}{x} \rightarrow$ Denominator	Ans: B
06	xyz	Ans: C
07	Degree = $2+2=4$	Ans: B
08	$-7x$	Ans: C
09	$3x^2 - 2x$	Ans: C
10	Variable	Ans: B
11	$2x + y^3$	Ans: D
12	Monomial	Ans: B
13	Conceptual	Ans: B
14	a, b, x	Ans: D
15	$4 - 2x$	Ans: B

JEE MAINS LEVEL

01	$4 - y$	Ans: C
02	$3 + 7 = 10$	Ans: B
03	Conceptual	Ans: A
04	3	Ans: C
05	Binomial	Ans: B
06	Coefficient = 2	Ans: A
07	$4x + 10$	Ans: B



08	Trinomial, cubic	⑤ Ans: D
09.	$\frac{4}{5}y, y, -3y$	Ans: C
10	$x+5=9 \Rightarrow x=4$	Ans: B
11.	$2x-1=9$	Ans: C
⑫	All are Algebraic terms	Ans. -
13.	-3	Ans: B

JEE ADVANCED LEVEL

14.	Conceptual	Ans. A, B, C
15	$2x-4y$ $6x+9$ } Binomial $3a^2-5ab+2b^2$ $2xy-7x+5$ } Trinomial	Ans. A, B, C, D
16	A, C, D are multinomials	Ans: A, C, D
17.	<u>Statement I:</u> $4+3=7$ is not numerical equality (False) <u>Statement II:</u> $4+3=7$, mathematical statement (True) Ans: D	
18	<u>Statement I:</u> Conceptual (True) <u>Statement II:</u> mathematically (True)	Ans: A
19	<u>Assertion:</u> Conceptual (True) <u>Reason:</u> Conceptual (True)	Ans: A

20	Assertion: $-7xy$, coefficient = -7 (True) Reason: Conceptual (True)	Ans: A
21	8	Ans: C
22	Binomial	Ans: B
23	5	Ans: B
24	$\frac{6}{y} = 3 \Rightarrow y = 2$	Ans: A
25	$\frac{6}{3} = 2$ (False)	Ans: B
26	3	Ans: 3
27	$2(x + \frac{1}{x}) \Rightarrow 2(2 + \frac{1}{2}) \Rightarrow 5$	Ans: 5
28	a) $3x + 5 = 11$ (open sentence) (P) b) $9 - 4 = 5$ mathematical statement (Q) c) $\frac{6}{y} = 3$ (open sentence) (P) d) $7 + 2 = 10$ False statement (S)	Ans: P, Q, P, S
29	a) $x + \frac{1}{x} \rightarrow$ Algebraic Expression (S) b) $4 + 5 > 7 \rightarrow$ mathematical statement (Q) c) $15 + 7 = 22 \rightarrow$ " (Q) d) $x + 8 = 13 \rightarrow$ open sentence (P)	Ans: S, Q, Q, P

\Rightarrow THE END \in