1. INTEGERS 2025-26

Class: VII, MATHEMATICS

INTEGRATED: SOLUTIONS

TEACHING TASK
JEE MAINS LEVEL

01	-300	Ans: B
02	$(-7)-8-(-25) = -7-8+25 = 10$	Ans: D
03	Conceptual	Ans: C
04	15000	Ans: D
05	-5	Ans: A
06	$-107-(-20)-5 = -107+20-5 = -92$	Ans: B
07	-441	Ans: B
08	-53000	Ans: B
09	-440	Ans: A
10	$5+(-5)+5+(-5)+\ldots$ (400 times) Sum = 0, since 400 is an Even no.	Ans: A
11	$x+60 = -300 \Rightarrow x = -360$	Ans: B
12	$x+7 = 20 \Rightarrow x = 13$	Ans: A
13	$x+y = x \Rightarrow x = x-y$	Ans: A
14	$x \times y = xy \Rightarrow x = \frac{xy}{y}$	Ans: A

15 $x \times (-1) = -120$ ● $\Rightarrow x = 120$ Ans: (D)

JEE ADVANCED LEVEL

16 Conceptual Ans: A, B, C

17 Conceptual Ans: A, B

18 Statement I: Conceptual (True) Ans: A

Statement II: Conceptual (True)

19 Statement I: Conceptual (True) Ans: A

Statement II: Conceptual (True)

20 513627 Ans: B

21 Conceptual Ans: B

22 $-(b-a) =$ Ans: C

23 -12 Ans: D

24 $1-1+1+\ldots\ldots$ (111 times) $= -1$ Ans: -1

Since 111 is odd number

25 $x \times -2150 = 139750$ Ans: -65

$\therefore x = -\frac{139750}{2150} = -65$

26 $5 + \frac{6}{12} \times 2 = 5 + 1 = 6$ Ans: 6

27 a) $y + x$ (r)

b) $(x \times y) \times z$ (t)

c) $x - y = -(y - x)$ (s)

d) $x + (y + z)$ (q)

Ans: r, t, s, q

28 a) $(-51) \times 16 + (-51) \times 13$ (q s)

b) $(-51) \times 13 + 16 \times 13$ (r)

c) $-51 + (16 + 13)$ (p)

d) $(-51 + 16) - 13$ (q)

Ans: s, r, p, q

LEARNERS TASK (CUQ's)

01	$-373 + 20 + (-3) + (-5) = -361$	Ans: A
02	3 5 76	Ans: D
03	-30	Ans D
04	9	Ans: A
05	-19	Ans: D
06	4	Ans: A
07	-34	Ans A
08	-81	Ans: C
09	151	Ans: D
10	-8	Ans: C

JEE MAINS LEVEL QUESTIONS

01. $x+y=40$
$x-y=4$
$2x=44$
$\Rightarrow x=22$
$\therefore y=44-22$
$=18$

$\therefore x:y=22:18$
$=11:9$

Ans: A

02 $x+\frac{x}{2}=60$
$\Rightarrow 2x+x=120$

$x=40$
$\frac{x}{2}=20$

Ans: B

03 optim Verification

Ans: A

04 $368\times(12+18)=368\times30=11040$

Ans: B

05 $\alpha+\beta+\gamma=x$
$\Rightarrow -y+\gamma=x$
$\Rightarrow \gamma=x+y$

Ans: B

06 $\alpha+\beta+\gamma+\delta=X$
$\Rightarrow Y+(\alpha+\delta)=X$
$\Rightarrow \alpha+\delta=X-Y$

Ans: A

07 $\alpha\cdot\beta\cdot\gamma=A$
$\Rightarrow \alpha\cdot B=A$
$\Rightarrow \alpha=\frac{A}{B}$

Ans: A

08 $a+b+c+d=100$

$\Rightarrow 10k + 5k + 10k + d = 100$

$\Rightarrow 25k + d = 100$

$\Rightarrow d = 100 - 25k$

$\Rightarrow d = 5(20-5k)$

$\Rightarrow d = 5m$

$\therefore d$ is the multiple of 5 Ans. B

09. $xyz = 105$

$\Rightarrow 7k \cdot z = 105$

$\Rightarrow z = \frac{1}{k} \cdot 15$

$\Rightarrow z = 5(3m)$

$\therefore z$ is multiple of 5 Ans. A

10 $2a+2b+2c = 48$ | $a = -4$

$\Rightarrow a+b+c = 24$

$\Rightarrow a+28 = 24$ Ans. A

11 $3x(5+x) = 33 \Rightarrow 5+x = 11$

$\Rightarrow x = 6$ Ans. A

12 option verification $x=2, y=1$ Ans. A

13 $x = -a$ Ans. B

14 conceptual Ans. A

15 option verification: $x=2, y=8, z=9$ Ans. A

JEE ADVANCED LEVEL

01 $ab = 10$, $cd = 30$
$= 3 \times 10$
$= 3 \times ab$
$\therefore ab = \frac{1}{3} cd$
Ans: A, B

02 $x = 5$, $y = 3$, $z = 4$
$\therefore x^2 = y^2 + z^2$
Ans: A, B

03 Conceptual
Ans: A

04 option Verification $a = 1, b = 7$
Ans: A

05 Statement I: Conceptual (True)
Statement II: Conceptual (True)
Ans: A

06 Statement I: Conceptual (False)
Statement II: Conceptual (True)
Ans: D

07. Statement I: $a(b+c) = ab + ac$
$= ab + am$ $\because c = m$ (True)
Statement II: Conceptual (False)
Ans: C

08 $(a+b-1) + 1 = a + b$
Ans: A

09 $x - y - 1$
Ans: C

10 Successor of $x = x + 1$
predecessor of $x = x - 1$
$\therefore$ Sum $= (x+1) + (x-1) = 2x$
Ans: C

11. Let $a=1,\ b=2,\ c=3,\ d=4$ (1)

$2 = \frac{1+3}{2} \Rightarrow b = \frac{a+c}{2}$

Ans: A

12 $2+4 = 2\times 3$

$b+d = 2c$

Ans B

13 $1+4 = 2+3$

$a+d = b+c$

Ans: C

14 $1+\frac{1}{2}+\frac{1}{3}+\frac{1}{6}$

$= \frac{6+3+2+1}{6} = \frac{12}{6} = 2$

Ans: 2

15 $1+2+3+\cdots+100 = \frac{n(n+1)}{2} = \frac{100\times 101}{2}$

$= 5050$

Ans: 5050

16 $(-50)+(-49)+(-48)+\cdots(-1)+(0)+(1)+\cdots$

$\cdots+(48)+(49)+50 = 0$

Ans: 0

17 a) Associative under addition (s)

b) Conceptual (t)

c) Conceptual (p)

d) Conceptual (q)

Ans: r, t, p, q

18 a) $a=1, b=2, c=3$

$a+(b+c) = 1+(2+3) = 6$

$a\times(b\times c) = 1\times(2\times 3) = 6$ (t)

b) $ab+bc+ca = 1\cdot 2+2\cdot 3+3\cdot 1 = 2+6+3 = 11$ (r)

c) $a^2+b^2+c^2 = 1^2+2^2+3^2 = 1+4+9 = 14$ (s)

d) $a^3+b^3+c^3 = 1^3+2^3+3^3 = 1+8+27 = 36$ (q)

Ans: t, r, s, q

$\Longrightarrow$ THE END $\Longleftarrow$