

FOUNDATION(V₂)

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Class: VI : MATHEMATICS

1. DECIMALS

TEACHING TASK (JEE MAINS)

01.

$$\begin{array}{r} 1.425 \\ + 7.38 \\ \hline 8.805 \end{array}$$

Ans: A

02

$$\frac{0.75}{0.50} = \frac{75}{50} = \frac{3}{2} = 1.5$$

Ans: B

03

$$\begin{aligned} & 2.7 - (0.9 + 1.3) \\ &= 2.7 - 2.2 \\ &= 0.5 \end{aligned}$$

Ans: B

04

$$0.625 = \frac{625}{1000} = \frac{5}{8}$$

Ans: A

05

$$\begin{aligned} & 1.2 \times (0.6 + 0.3) \\ &= 1.2 \times 0.9 \\ &= 1.08 \end{aligned}$$

Ans: B

06

$$\begin{array}{r} 1.20 \\ - 0.95 \\ \hline 0.25 \end{array}$$

Ans: A

07

$$\frac{50}{100} = \frac{5}{10} = 0.5$$

Ans: C

08

$$1.63 \times 6.3 = 10.269$$

Ans: C

09 $\frac{1}{8} = 0.125$

Ans: B

10
$$\begin{array}{r} 21.114 \\ - 14.280 \\ \hline 6.834 \end{array}$$

Ans: C

11 $1 \text{ hr} = 3600 \text{ Sec.}$
 $\therefore \frac{1}{3600} = 0.00028$

Ans: A

12. $0.36 = \frac{36}{100} = \frac{9}{25}$
 $\therefore \text{Difference} = 25 - 9 = 16$

Ans: C

13 $3 \times 0.3 \times 0.03 \times 0.003 \times 30$
 $= 0.00243$

Ans: C

14 $45.8 \times 6 = 274.8 \text{ Km}$

Ans: C

15 $0.3 \times 0.008 = 0.0024$

Ans: C

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16. $3.1416 = 3.1416 \times 10^0$

Ans: A

17 $9.546, 87.349, 1.045, 765.047$ Ans: A, B, C, D

18 Statement I: $12.78 \sim 12.8$ (True)

Ans: A

Statement II: Conceptual (True)

19 Statement I: Conceptual (False)

Statement II: Conceptual (True)

Ans: D



20 Assertion:

$$52.307 = 50 + 2 + \frac{3}{10} + \frac{0}{100} + \frac{7}{1000} \quad (\text{True})$$

Reason: Conceptual (True)

Ans: A

21. Assertion: Conceptual (True)

Reason: Conceptual (True)

Ans: A

$$\begin{array}{r} 0.3 \\ + 0.03 \\ \hline 0.33 \end{array}$$

Ans: A

$$\begin{array}{r} 1.25 \\ - 0.75 \\ \hline 0.50 \end{array}$$

Ans: A

24 c) 63.694, 43.492

Ans: C

25 A) 22.789, 8.9

Ans: A

26 $15.239 \sim 15$

Ans: 15

$$49000000000 = 4.9 \times 10^9$$

Ans: 9

$$0.7 \times 0.25 = 0.175$$

Ans: 0

$$2.333 \dots = \frac{7}{3} \Rightarrow 7+3=10$$

Ans: 10

30 a) $3.1416 \sim 3.14$ (x)

$$b) 7.895 \times 10^{-4} = 0.0007895$$
 (y)

$$c) \frac{5}{8} = 0.625$$
 (p)

$$d) \frac{85}{100} = \frac{17}{20}$$
 (s)

Ans: x, y, p, s

31

a)
$$\begin{array}{r} 20 \\ 3 \\ 0.7 \\ 0.05 \\ 0.008 \\ \hline 23.758 \end{array} \quad (t)$$

b) $827.7973 \dots (P)$

c) $573.636363 \dots (S)$

d)
$$\begin{array}{r|l} 14.62 & 27.25 \\ 12.63 & 25.25 \\ \hline 27.25 & 2 \end{array} \quad (r)$$

Ans: t, P, S, r

LEARNERS TASK (CUES)

01. $\frac{2}{10} = 0.2$ Ans: C

02. 0.25 Ans: C

03.
$$\begin{array}{r} 0.6 \\ + 0.45 \\ \hline 1.05 \end{array}$$
 Ans: A

04. A rational number Ans: C

05. 0.75 Ans: D

06. $75.75 \times 0.2554 = 19.3518525$ Ans: 7

07. $\frac{25}{0.0005} = \frac{250000}{5} = 50000$ Ans: D

08. $40 \text{ ml of } 1 \text{ lit} = \frac{40}{1000} = 0.04$ Ans: B

09 $32.35 = \frac{3235}{100}$

(5)
Ans: A

10 $400 + 20 + 1 + \frac{2}{10} + \frac{3}{100} + \frac{5}{1000}$
 $= 421 + 0.2 + 0.03 + 0.005$
 $= 421.235$

Ans: A

11 $102 \times 0.22 = 22.44$

Ans: B

12 $\frac{0.0098}{0.28} = 0.00035$

Ans: B

13 0.15

Ans: B

JEE MAINS LEVEL

01 $9275 \text{ m} = 9.275 \text{ km}$

Ans: D

02 $9\frac{7}{20} = \frac{187}{20} = 9.35$

Ans: D

03 $\frac{0.46 - 0.046}{0.046 + 4.6} = \frac{0.414}{4.646} = 0.089$

Ans: D

04 $5.4 + x = 20.9$
 $\therefore x = 20.9 - 5.4$
 $= 15.5$

Ans: A

05
$$\begin{array}{r} 22.356 \\ 23.5 \\ 689.4 \\ \hline 735.256 \end{array}$$

$$\begin{array}{r} 735.256 \\ 131.6 \\ \hline 603.656 \end{array}$$

Ans: B

06

$$\text{other number} = \frac{42.63}{2.1} = 20.3$$

 (6)
Ans: C

07

$$3.35 \times 8 = 26.80$$

Ans: C

08

$$\begin{array}{r} 218.99 \\ + 109.85 \\ \hline 328.84 \end{array}$$

Ans: D

09

$$\begin{array}{r} 39.45 \\ - 28.47 \\ \hline 10.98 \end{array}$$

Ans: B

10

$$18.35 \times 1.2 = 22.02$$

Ans: C

11.

$$2.4x - 0.6 = 1.8$$

$$\Rightarrow x = \frac{1.8 + 0.6}{2.4} = \frac{2.4}{2.4} = 1$$

Ans: C

12

$$0.3 \times 0.4 = 0.12$$

Ans: A

13

$$0.2 + 3x = 1.1$$

$$\Rightarrow x = \frac{1.1 - 0.2}{3} = \frac{0.9}{3} = 0.3$$

Ans: A

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A) Scientific notation

$$A) 5.3242 \times 10^2$$

$$C) 6.4932 \times 10^{-2}$$

Ans: A, C

14. $0.25 + 0.6 \times 0.4$

$= 0.25 + 0.24$

$= 0.49$ (or) $\frac{49}{100}$

Ans: B, C

16. Statement I:
$$\begin{array}{r} 1.2 \\ + 0.75 \\ \hline 1.95 \end{array}$$
 miles (True)

Statement II: Conceptual (True)

Ans: A

17 Statement I: Conceptual (True)

Statement II: $3.47 \times 10 = 34.7$ (False)

Ans: C

18 Assertion:
$$\begin{array}{r} 7.52 \\ - 2.50 \\ \hline 5.02 \end{array}$$
 (True)

Reason: Conceptual (True)

Ans: A

19 Assertion: $10^{-3} = \frac{1}{1000} = 0.001$ (True)

Reason: Conceptual (True)

Ans: A

20 $3.5, 0.67, 15.6, 40$

$3.50, 0.67, 15.60, 40.00$

Ans: B

21 $4.15, 3.1, 7.120, 0.134$

$4.150, 3.100, 7.120, 0.134$

Ans: A

22 $1.25 + 0.75 + 0.5 \text{ ~~1.00~~ } = 2.5 \text{ cups}$ (8)
Ans: D

23 $0.25 \times 2 = 0.5$ teaspoons

24 $0.4 + 0.4 = 0.8$ of the total mixture

25 $0.65 + 0.35 = 1$ Ans: 1

26 $\frac{129.5}{18.5} = 7$ Ans: 7

27 $0.6 \times 0.4 = 0.24 = \frac{24}{100} = \frac{P}{Q}$
 $P + Q = 24 + 100 = 124$ Ans: 124

28 a) $367.80 \times 6 = 2206.8$ (8)

b) $234.28 + 43.492 = 277.772$ (P)

c) $\frac{81.2}{32} = 2.5375$ (S)

d) $(823.32 - 321.29) + 41.7 = 543.73$ (Q)
Ans: 8, P, S, Q

29 a) $10^{-1} = \frac{1}{10} = 0.1$ (8)

b) $10^{-2} = \frac{1}{100} = 0.01$ (S)

c) $10^{-3} = \frac{1}{1000} = 0.001$ (P)

d) $10^{-4} = \frac{1}{10000} = 0.0001$ (Q) Ans: 8, S, P, Q

⇒ THE END ⇐