

PRACTICE TEST OF TOP RANK

TEST OF REASONING & MENTAL ABILITY - NO.14

- Tobacco is related to Nerves in the same way as Alcohol is treated to ————
A. liver B. liquor C. Intoxification D. Head
- Choose the odd one : -
A. Cathedral B. Mosque C. Church D. Monastery E. Temple
- If in a language 'finger' is called 'Toe', 'toe' is called 'foot', 'foot' is called 'thumb', 'thumb' is called 'ankle', 'ankle' is called 'palm' and 'palm' is called 'knee'. What will an illiterate man put to mark his signature ?
A. Toe B. Ankle C. Thumb D. Knee E. palm
- Evaluate $(256)^{0.16} \times (16)^{0.18}$
A. 2 B. 6 C. 4 D. 8 E. 10
- If $2 * 3 = \sqrt{13}$ and $3 * 4 = 5$, then the value of $5 * 12$ is;
A. $\sqrt{17}$ B. $\sqrt{29}$ C. 12 D. 13 E. 16
- The product of two numbers is 45 and the sum of their squares is 106. The numbers are
A. 3 and 5 B. 5 and 9 C. 5 and 19 D. 45 and 1 E. None of these
- 0.01 is what percent of 0.1 ?
A. $\frac{1}{100}$ B. $\frac{1}{10}$ C. 10 D. 100 E. None of these
- If M denotes \times , D denotes \div , A denotes $+$, S denotes $-$, Then,
25 S 72 D 12 A IM 6 is,
A. 25 B. 20 C. 35 D. 2 E. None of these
- In a certain code, ROPE is coded as 6821. CHAIR is coded as 73456. What will be the code for CRAPE ?
A. 73456 B. 76421 C. 77246 D. 77123 E. 73127
- 'Cosmonaut' is related to 'Russia' in the same way as 'Taconaut' is related to ————
A. Japan B. Korea C. China D. India E. None of these
- The value of $5^{\frac{1}{4}} \times (125)^{0.25}$ is
A. $\sqrt{5}$ B. 5 C. $5\sqrt{5}$ D. 25 E. None of these
- Sixty five percent of a number is 21 less than four-fifth of that number what is the number?
A. 100 B. 190 C. 140 D. 200 E. 150
- Pointing to the woman in the picture, Rajiv said, "Her mother has only one grand child whose mother is my wife". How is the woman in the picture related to Rajiv ?
A. cousin B. wife C. sister D. Data Inadequate
E. None of these
- How many D's are there in the following series which are immediately followed by W but not immediately preceded by K ?
K D C W K D W N K G D W W D H K V D W Z D W
A. Nil B. one C. two D. three E. four
- If the letters of the word ARTICULATES can be used as many times as one wants to use, then which one

of the following four words cannot be formed ?

A. COURTS B. LATER C. ELECTRIC D. ARTICLE E. None of these

16. Choose the number which is different from others in the following

A. 751 B. 734 C. 981 D. 853 E. 532

17. If $x = 1 + \sqrt{2}$ and $y = 1 - \sqrt{2}$, find the value of $(x^2 + y^2)$?

A. 4 B. 8 C. 6 D. 2 E. None of these

18. $0.6 \times 0.6 + 0.6 \div 0.6$

A. 0.36 B. 0.46 C. 0.036 D. 0.0036 E. 0.00036

19. $23 : 35 :: 57 : \text{_____}$

A. 79 B. 73 C. 711 D. 911 E. None of these

20. In a certain code language, If the word NESTLE is coded as ODUROB, then how is the word OPPOSITE coded in that language ?

A. PQRMVEXA B. PORMVFXA C. POSNVGYA D. PNSLWEYA E. PAWENSLY

21. Kamala journeys 10 km to east, then 10 km to south west. She turns again and journeys 10 km to North-west. Which direction is she in from the starting point ?

A. East B. South-east C. West D. None of these E. South-west

22. Which of the following number will complete the below series ?

6, 15, 35, 77, 143, _____

A. 321 B. 121 C. 220 D. 221 E. None of these

23. If HEALTH = 7, EXERCISE = 9 and CHOLESTEROL = 12, then DIABETICS is equal to,

A. 8 B. 9 C. 10 D. 12 E. 20

24. Evaluate $\sqrt{248 + \sqrt{51 + \sqrt{169}}}$

A. 10 B. 12 C. 14 D. 16 E. 18

25. Pick the odd thing out : -

A. WD B. JQ C. KP D. SF E. BY

ANSWER WITH EXPLANATION

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1. A Consumption of first adversely affects the second
2. D All except monastery are places of worship, while monastery is a place where monks stay.
3. B. An illiterate man put to mark his signature using the 'thumb' and here. The code for 'thumb' is ankle.

4. C $(256)^{0.16} \times (16)^{0.18} = (16^2)^{0.16} \times (16)^{0.18}$

$$\begin{aligned} &= (16)^{2 \times 0.16} \times (16)^{0.18} \\ &= (16)^{2 \times 0.16 + 0.18} \\ &= (16)^{0.5} \\ &= (16)^{\frac{1}{2}} = \sqrt{16} = \underline{\underline{4}} \end{aligned} \quad \left(\begin{array}{l} a^m \times a^n = a^{m+n} \\ \sqrt{a} = a^{\frac{1}{2}} \end{array} \right)$$

5. D Clearly $a * b = \sqrt{a^2 + b^2}$

$$\begin{aligned} \therefore 5 * 12 &= \sqrt{5^2 + 12^2} \\ &= \sqrt{25 + 144} \\ &= \sqrt{169} = \underline{\underline{13}} \end{aligned}$$

6. B Let the numbers be x & y

Then $xy = 45 \quad x^2 + y^2 = 106$

$$x + y = \sqrt{x^2 + y^2 + 2xy} = \sqrt{106 + 90} = \sqrt{196} = 14$$

$$x - y = \sqrt{x^2 + y^2 - 2xy} = \sqrt{106 - 90} = \sqrt{16} = 4$$

$$x + y = 14 \rightarrow (1)$$

$$x - y = 4 \rightarrow (2)$$

Solving (1) & (2), we get x = 9 and y = 5

7. C Required percentage = $\left(\frac{0.01}{0.1} \times 100 \right) \%$

$$= \left(\frac{1}{10} \times 100 \right) \% = \underline{\underline{10\%}}$$

8. A 25 S 72 D 12 A 1 M 6

$$\begin{aligned} &\Rightarrow 25 - 72 \div 12 + 1 \times 6 \\ &\Rightarrow 25 - 6 + 1 \times 6 \quad \downarrow (\because \text{BODMAS RULE}) \\ &\Rightarrow 25 - 6 + 6 \\ &= \underline{\underline{25}} \end{aligned}$$

9. B
- | | | | | | | | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|----------|----------|----------|----------|----------|
| <i>R</i> | <i>O</i> | <i>P</i> | <i>E</i> | <i>C</i> | <i>H</i> | <i>A</i> | <i>I</i> | <i>R</i> | | <i>C</i> | <i>R</i> | <i>A</i> | <i>P</i> | <i>E</i> |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ∴ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 6 | 8 | 2 | 1 | 7 | 3 | 4 | 5 | 6 | | 7 | 6 | 4 | 2 | 1 |

10. C Space man belonging to Russia is called cosmonaut
Space man belonging to China is called Taconaut

11. B

$$\begin{aligned} 5^{\frac{1}{4}} \times (125)^{0.25} &= 5^{0.25} \times (5^3)^{0.25} \\ &= 5^{0.25} \times 5^{3 \times 0.25} \\ &= 5^{0.25} \times 5^{0.75} \\ &= 5^{(0.25+0.75)} \\ &= 5^1 = \underline{\underline{5}} \end{aligned} \quad \left(\begin{array}{l} (a^m)^n = a^{m \times n} \\ a^m \times a^n = a^{m+n} \end{array} \right)$$

12. C Let the number be x.

Then, $\frac{4}{5}x - (65\% \text{ of } x) = 21$

$$\begin{aligned} &\Rightarrow \frac{4}{5}x - \frac{65}{100}x = 21 \\ &\Rightarrow 15x = 2100 \\ &\Rightarrow x = \underline{\underline{140}} \end{aligned}$$

13. B Rajiv's wife's child is Rajiv's child.
The woman's mother is the grand mother of Rajiv's child. So woman is Rajiv's wife.
14. D K D C W K D W N K G D W W D H K V D W Z D W
15. A Clearly the word ARTICULATES does not contain the letter O and as such, the word COURTS cannot be formed.
16. A In each number, except 751, the difference of first and third digits is equal to the middle digit.

17. C $x^2 + y^2 = (1 + \sqrt{2})^2 + (1 - \sqrt{2})^2$
 $= 1 + 2\sqrt{2} + 2 + 1 - 2\sqrt{2} + 2 = \underline{\underline{6}}$

18. B $.6 \times .6 + .6 \div .6$ (BODMAS rule)
 $\Rightarrow .6 \times .6 + .1$
 $\Rightarrow .36 + .1 = .46$

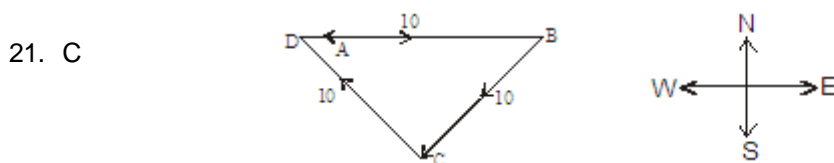
19. C The number is a group of consecutive prime numbers. The missing number is 711.

20. B Logic is

N	E	S	T	L	E
↓	↓	↓	↓	↓	↓
+1	-1	+2	-2	+3	-3
O	D	U	R	O	B

Similarly

O	P	P	O	S	I	T	E
+1	-1	+2	-2	+3	-3	+4	-4
P	O	R	M	V	F	X	A



We have to find the direction from A to D, and ie, west

22. D

6,	15,	35,	77,	143,	221
(2×3)	(3×5)	(5×7)	(7×11)	(11×13)	(13×17)

Multiply 2 successive prime numbers

23. C HEALTH = 7 \Rightarrow (No: of words in HEALTH) + 1
 EXERCISE = 9 \Rightarrow (No : of words in EXERCISE) + 1

DIABETICS \Rightarrow (No: of words in DIABETICS) + 1 = 10

24. D $\sqrt{248 + \sqrt{51} + \sqrt{169}} \Rightarrow \sqrt{248 + \sqrt{51 + 13}}$
 $\Rightarrow \sqrt{248 + \sqrt{64}}$
 $\Rightarrow \sqrt{248 + 8}$
 $\Rightarrow \sqrt{256} = \underline{\underline{16}}$

25. D

A	(B)	C	(D)	E	F	G	H	I	(J)	(K)	L	M
Z	(Y)	X	(W)	V	U	T	S	R	(Q)	(P)	O	N

Here WD, JQ, KP and BY are identical.