

TEST OF REASONING & MENTAL ABILITY - NO.4

Time : 30 minutes

Marks : 100

- The respective ratio between the speeds of a car, a train and a bus is 5 : 9 : 4. The average speed of the car, the bus and the train is 72 km/hr together. What is the average speed of car and the train together ?
A. 82 km/hr B. 78 km/hr C. 84 km/hr D. Cannot be determined
E. None of these
- Which of the following has the same relationship as that of JL : KM ?
A. RT : UV B. EF : GH C. CE : DB D. Cannot be determined
E. None of these
- If 'P' means 'X', 'Q' means \div , 'R' means $-$ and 'S' means $+$, then what will be the value of 16S64Q8R4P2 = ?
A. 18 B. 14 C. 16 D. 24 E. None of these
- Find the odd one among the following ?
A. RUAJNAY B. EOCOTBR C. YUREFBAR D. RBEEDCME E. None of these
- $(\sqrt{5} + \sqrt{3})(\sqrt{5} - \sqrt{3}) = ?$
A. $\sqrt{2}$ B. $\sqrt{3}$ C. 3 D. 2 E. None of these
- $\frac{4}{7} \times 2\frac{4}{5} \div \frac{2}{5} = ?$
A. $\frac{6}{7}$ B. 8 C. $\frac{2}{5}$ D. 4 E. None of these
- What is 40% of 50% of $\frac{3}{4}$ of 3200 ?
A. 480 B. 560 C. 600 D. 420 E. None of these
- In a certain code MAIN is written as IMNA and GOAL is written as AGLO. How is DUSK written in that code ?
A. SDKU B. SUKD C. UKDS D. USKD E. None of these
- If 'tree' means 'mountain', 'mountain' means 'water', 'water' means 'jungle', 'jungle' means bus, 'bus' means 'truck' and 'truck' means 'house', then where do the fish live ?
A. water B. mountain C. jungle D. Bus E. None of these
- In a certain code language 'nik ka pa' means 'who are you', 'ka na ta da' means 'you may come here' and 'ho ta sa' means 'come and go'. What does 'nik' means in that code language ?
A. Who B. are C. who or are D. Data inadequate E. None of these
- The position of first and the fifth digits in the number 89123647 are interchanged. Similarly the positions of second and sixth digits are interchanged and so on. Which of the following will be the fourth digit from the right end after the rearrangement ?
A. 9 B. 1 C. 8 D. 2 E. none of these

12. Find the odd one among the following
 A. EEPUR B. RALLOD C. DNUOP D. ECNARF E. ORUE
13. In the following sequence of digits, how many 4's are there that are immediately preceded by 6 and immediately followed by 5 ?
 3 4 2 6 5 4 3 6 4 5 9 8 6 4 5 3 8 7 4 6 8 2 1 7 6 4 5 8 6 4 5 9 7 4 5
 A. 2 B. 8 C. 6 D. 4 E. None of these
14. In a certain code language, if Mumbai is called Chennai, Chennai is called Delhi, Delhi is called kolkata, kolkata is called Bangalore and Bangalore is called Hyderabad, then what is the capital city of india according to that language ?
 A. Chennai B. Delhi C. Kolkata D. Hyderabad E. None of these
15. $\left[\left((2^4)^{\frac{1}{2}} \right)^7 \right] = 256$
 A. 8 B. 6 C. 1 D. 4 E. None of these
16. 'Pull' is related to 'push' in the same way as 'Low' is related to
 A. medium B. high C. more D. long
17. In a certain code 'MEAN' is written as '8964' and 'NOBLE' is written as '47529'. How is LOAM written in that code ?
 A. 2768 B. 2758 C. 2968 D. 2468 E. None of these
18. Four of the following five are alike in a certain way and so form a group which is the one that does not belong to that group ?
 A. Mountain B. Fort C. Hill D. River E. Sea
19. The magnitude of the area of a circle is seven times that of its circumference. What is the Circumference of the Circle ?
 A. 616 B. 132 C. 88 D. cannot be determind
 E. none of these
20. In a certain code, if the word LANCER = 36, and MECHANIC = 64 then what is the value of NUMERIC in that code ?
 A. 64 B. 36 C. 49 D. 58 E. None of these
21. In a certain code, If $16 \times 40 = 820$, $20 \times 80 = 1040$, $42 \times 84 = 2142$, Then $26 \times 50 = \text{---}$?
 A. 1025 B. 2020 C. 1455 D. 1325 E. none of these
22. Find the missing number in the series
 $234 : 24 :: 567 : \text{---}$
 A. 57 B. 210 C. 310 D. 765 E. None of these
23. What should come in place of question mark (?) in the following series ?
 15 18 16 19 17 20 ?
 A. 23 B. 22 C. 16 D. 18 E. 21
24. Which of the missing numbers will complete the below series ?
 2, 5, 11, 23, _____, _____
 A. [49, 30] B. (40, 35) C. (47, 95) D. none of these
 E. Cannot be determind
25. Find the odd one :
 A. Pink B. Drink C. Blink D. Sink E. None of these

ANSWER WITH EXPLANATION

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1. C Let speed of car, train and bus be $5x$, $9x$ and $4x$ km/hr respectively.
 $\therefore 5x + 9x + 4x = 72 \times 3$
 $\therefore x = 12$
Average speed of car and train $= \frac{5x+9x}{2} = \frac{84}{2} = 42 \text{ km/hr}$
2. E Each corresponding element moves one alphabet forward.
3. C $16 + 64 \div 8 - 4 \times 2$
 $\Rightarrow 16 + 8 - 4 \times 2$
 $\Rightarrow 16 + 8 - 8 = 16$ (Apply BODMAS Rule)
4. C The words are Jumbled.
The given words are JANUARY, OCTOBER, FEBRUARY, DECEMBER. Except february, all other months have 31 days.
5. D $(\sqrt{5} + \sqrt{3})(\sqrt{5} - \sqrt{3})$ is of the form $(a + b)(a - b) = a^2 - b^2 \therefore 5 - 3 = 2$
6. D $? = \frac{4}{7} \times 2 \frac{4}{5} \div \frac{2}{5}$
 $= \frac{4}{7} \times \frac{14}{5} \times \frac{5}{2} = 4$
7. A Given expression = 40% of 50% of $\frac{3}{4}$ th of 3200
 $= \frac{40}{100} \times \frac{50}{100} \times \frac{3}{4} \times 3200 = \underline{\underline{480}}$
8. A. As $\begin{matrix} M & A & I & N \\ 1 & 2 & 3 & 4 \end{matrix} \rightarrow \begin{matrix} I & M & N & A \\ 3 & 1 & 4 & 2 \end{matrix}$ and $\begin{matrix} G & O & A & L \\ 1 & 2 & 3 & 4 \end{matrix} \rightarrow \begin{matrix} A & G & L & O \\ 3 & 1 & 4 & 2 \end{matrix}$
 $\therefore \begin{matrix} D & U & S & K \\ 1 & 2 & 3 & 4 \end{matrix} \rightarrow \begin{matrix} S & D & K & U \\ 3 & 1 & 4 & 2 \end{matrix}$
9. C Fish live in water and water means jungle
10. C 'nik ka pa' \rightarrow who are you \rightarrow (1)
'ka na ta da' \rightarrow you may come here \rightarrow (2)
'ho ta sa' \rightarrow come and go \rightarrow (3)
from (1) & (2) ka \rightarrow you
from (2) & (3) ta \rightarrow come
 \therefore nik \rightarrow 'who' or 'are'
11. C 89123647 \rightarrow 3 6 4 7 8 9 1 2
 \therefore 4th digit from the right end after the rearrangement is 8.
12. D The words are jumbled
The words are RUPEE, DOLLAR, POUND, FRANCE, EURO. Except FRANCE all others are form of money.

13. D 3 4 2 6 5 4 3 64 5 9 8 64 5 3 8 7 4 6 8 2 1 7 64 5 8 64 5 9 7 4 5
 14. C Capital city of india is Delhi and here code for Delhi is Kolkata

15. D $\left[(2^4)^{\frac{1}{2}} \right]^7 = 256$ $\therefore \left[(a^m)^n \right]^p = a^{m \times n \times p}$
 $\Rightarrow 2^{4 \times \frac{1}{2} \times 7} = 2^8$
 $\therefore 4 \times \frac{1}{2} \times ? = 8$
 $\underline{\underline{? = 4}}$

16. B Here the first word is the antonym of second

17. A $\begin{matrix} M & E & A & N \\ 8 & 9 & 6 & 4 \end{matrix}$ $\begin{matrix} N & O & B & L & E \\ 4 & 7 & 5 & 2 & 9 \end{matrix}$
 $\therefore \begin{matrix} L & O & A & M \\ 2 & 7 & 6 & 8 \end{matrix}$

18. B Others are natural

19. C We have, $\pi r^2 = 7 \times 2\pi r$
 $\therefore r = 14$

$$\text{Circumference} = 2\pi r = 2 \times \frac{22}{7} \times 14 = \underline{\underline{88}}$$

20. C No: of words in LANCER $= 6 = 6^2 = 36$
 No: of words in MECHANIC $= 8 = 8^2 = 64$
 No: of words in NUMERIC $= 7 = 7^2 = 49$

21. D $\frac{16}{(8)} \times \frac{40}{(20)} = 820$ (take the half of numbers)
 $\frac{20}{(10)} \times \frac{80}{(40)} = 1040$
 $\therefore \frac{26}{(13)} \times \frac{50}{(25)} = 1325$

22. B 234 : 24 means $2 \times 3 \times 4 = 24$
 Similarly 567 : ——— means $5 \times 6 \times 7 = 210$

23. D $15 + 3 = 18$
 $18 - 2 = 16$
 $16 + 3 = 19$
 $19 - 2 = 17$
 $17 + 3 = 20$
 $20 - 2 = 18$

24. C Here, the series go through by $\times 2 + 1$

25. A Except pink, all others are verbs.