

TEST OF REASONING & MENTAL ABILITY - NO.3

Time : 30 minutes

Marks : 100

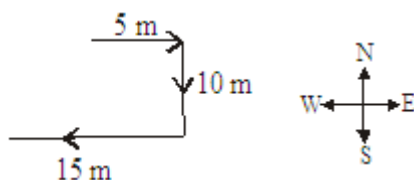
1. Bindhu walked five metres towards East, took a right turn and walked 10 metres and again he took a right turn and walked 15 metres. Which direction is he facing now ?
A. South B. West C. North D. South west E. None of these
2. In a certain code 'DEAL' is written as '3524' and 'LIE' is written as '475'. How is 'IDLE' written in that code ?
A. 7345 B. 3745 C. 7342 D. 7245
3. A disease would always necessarily have _____
A. medicine B. Bacteria C. Cause D. Cure E. fever
4. In a party, each person shakes their hands with all other person. If the total number of hand shakes were 66, then how many persons were present in the party
A. 16 B. 15 C. 13 D. 14 E. 12
5. Find out the wrong number in the below series
7 9 16 25 41 68 107 173
A. 107 B. 16 C. 41 D. 68 E. 25
6. How many 7's are immediately preceded by 6 but not immediately followed by 4 are there in the following series ?
7 4 2 7 6 4 3 6 7 5 3 5 7 8 4 3 7 6 7 2 4 0 6 7 4
A. One B. Two C. Four D. Six
7. In the following letter sequence, how many instances are there in which a vowel is immediately preceded and immediately followed by a consonant ?
spruatpghjtkpserplmijkmporkgluwrablhtupqm
A. seven B. eight C. five D. six
8. Find the odd one among the following : -
A. SORE B. SOLTU C. NORGAE D. MEJNIAS
9. Which of the missing numbers will complete the series ?
32, 43, 65, 98, _____, _____
A. 140, 150 B. 130, 126 C. 142, 197 D. None of these
10. In a certain code, If $10 \times 3 = 91$, $20 \times 2 = 396$, then $15 \times 11 =$ _____ ?
A. 100 B. 96 C. 86 D. 104 E. none of these
11. A 'tumbler' is related to 'Empty' in the same way as 'seat' is related to _____
A. occupied B. person C. chair D. vacant
12. The sum of five consecutive even numbers is equal to 230 what is the sum of the largest number amongst them and the square of the smallest number amongst them ?
A. 1684 B. 1464 C. 1784 D. 1814 E. none of these

13. What is fifty five percent of two fifths of 1200 ?
 A. 284 B. 264 C. 246 D. 254 E. none of these
14. The ratio of the present ages of Indhira, and Lizzy is 3 : 8. After 8 years, Indira's age will be 20 years. What was Lizzy's age 5 years ago ?
 A. 37 years B. 27 years C. 28 years D. 38 years E. None of these
15. In a certain code, if CRICKET is coded as 3923564, ROCKET is coded as 913564 and KETTLE is coded as 564406, then how LITTLE is coded in that language ?
 A. 402406 B. 204406 C. 024406 D. None of these E. 024405
16. Find the missing number
 27 : 51 :: 83 : _____
 A. 102 B. 117 C. 123 D. 138 E. None of these
17. A's father's brother's father is D. How is D related to A ?
 A. grand father B. father C. Brother D. None of these E. Uncle
18. P is 60 m South-East of Q. R is 60 m North-East of Q. Then R is in which direction of P ?
 A. North B. North-East C. South D. South-East
19. '1 is subtracted from each odd digit and '1' is added to each even digit in the number 4873529. Which of the following will be the difference between the second digit from the left and third digit from the right of the new number thus formed ?
 A. 4 B. 23 C. 5 D. 6 E. 2
20. Harija correctly remebers that her father's birthday is after eighteenth may but before twenty second may. Her Brother correctly remembers that their father's birthday is before twenty-fourth may but after twentieth may. On which date in may was definitely their father's birth-day?
 A. twentieth B. Nineteenth C. Eighteenth D. Cannot be determined
 E. None of these
21. A number whose fifth part increased by 5 is equal to its fourth part diminished by 5. Find the number ?
 A. 100 B. 150 C. 200 D. None of these E. 110
22. A cube of sides 3 cm is melted and smaller cubes of sides 1 cm each are formed. How many such cubes are possible ?
 A. 27 B. 9 C. 81 D. None of these E. 56
23. Find the odd one out
 A. commander B. commodore C. Brigadier D. Admiral E. None of these
24. Which word cannot be formed by using the letters of the given word ?
 ADMINISTRATION
 A. STRAIN B. TRADITION C. SITUATION D. RATION E. None of these
25. There are 10 crows sitting on a bench one is shot at with gun and is killed. How many remain there after ?
 A. 3 B. 2 C. 9 D. 8 E. None of these

ANSWER WITH EXPLANATION

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1. B



2. A

D	E	A	L	I	I	D	L	E
↓	↓	↓	↓	↓	⇒			
3	5	2	4	7		3	4	5

3. C

1 and 4 are what happens after a disease.

4. E

Here $nC_2 = 66$

$$nC_r = \frac{n!}{r!(n-r)!}$$

$$\therefore \frac{n!}{2!(n-2)!} = 66$$

$$\therefore \frac{n(n-1)(n-2)!}{2 \times (n-2)!} = 66$$

$$n(n-1) = 66 \times 2 = 132$$

$$n^2 - n - 132 = 0$$

$$\therefore n = 12$$

5. D $7 + 9 = 16$, $9 + 16 = 25$, $16 + 25 = 41$, $41 + 25 = \boxed{66}$

$$66 + 41 = 107, \quad 107 + 66 = 173$$

6. B

7 4 2 7 6 4 3 6 7 5 3 5 7 8 4 3 7 6 7 2 4 0 6 7 4

7. D

spruat pghjtkp $\frac{ser}{1}$ pl $\frac{mij}{2}$ km $\frac{poi}{3}$ k g $\frac{luw}{4}$ $\frac{rab}{5}$ lh $\frac{tux}{6}$ qm

8. C

The words are jumbled. The actual words are ROSE, LOTUS, ORANGE, JASMINE.
All except ORANGE are flowers

9. C

$\begin{matrix} (+11) & (+22) & (+33) & (+44) & (+55) \\ 32, & 43, & 65, & 98, & 142, & 197 \end{matrix}$

10. D

$$\begin{array}{lll} 10 \times 3 = 91 & \text{means} & 10^2 - 3^2 = 91 \\ 20 \times 2 = 396 & ,, & 20^2 - 2^2 = 396 \\ \therefore 15 \times 11 = & 15^2 - 11^2 & \Rightarrow 225 - 121 \\ & & = 104 \end{array}$$

11. D

As Tumbler is emptied similarly seat is vacant

12. D

Let five consecutive even numbers be

$$x, x+2, x+4, x+6 \text{ \& } x+8$$

$$\text{Given, } x+x+2+x+4+x+6+x+8 = 230$$

$$5x+20 = 230$$

$$\therefore x = 42$$

Smallest number = 42

$$\text{Largest number} = 42 + 8 = 50$$

$$\text{Square of smallest number} = (42)^2 = 1764$$

$$\therefore 1764 + 50 = 1814$$

13. B

$$\frac{55}{100} \times \frac{2}{5} \times 1200 = 264$$

14. B

$$\text{Indira's present age} = 20 - 8 = 12 \text{ years}$$

$$\text{Lizzy's present age} = 12 \times \frac{8}{3} = 32 \text{ years}$$

$$\text{Lizzy's age 5 years ago} = 32 - 5 = 27 \text{ years}$$

15. C

$$\begin{array}{cccccccc|cccccccc} C & R & I & C & K & E & T & & R & O & C & K & E & T & & K & E & T & T & L & E \\ 3 & 9 & 2 & 3 & 5 & 6 & 4 & & 9 & 1 & 3 & 5 & 6 & 4 & & 5 & 6 & 4 & 4 & 0 & 6 \end{array}$$

16. C

The given analogy can be written as $5^2 + 2 : 7^2 + 2 :: 9^2 + 2 : \underline{\hspace{2cm}}$
5 & 7 are consecutive odd numbers

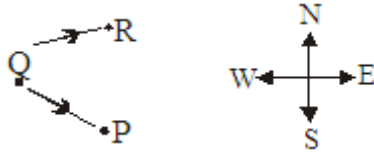
$$\text{Similarly next odd number to 9 is 11 and } 11^2 + 2 = \underline{\underline{123}}$$

17. A

A's father's brother is A's uncle. His uncle's father is A's father's father

∴ D is the grand father of A.

18. A



R is the North of P.

19. C

4 8 7 3 5 2 9 → 5 9 6 2 4 3 8
Now, 9 - 4 = 5

20. E

According to Harija, her father's birthday is on 19, 20, 21st my.

According to her brother their father's birthday is on 21, 22, 23rd may.

Their father's birthday is on 21st may.

21. C

Let the required number be x.

∴ Then, $\frac{x}{5} + 5 = \frac{x}{4} - 5$

$$\frac{x}{4} - \frac{x}{5} = 10$$

$$\therefore x = 200$$

22. A

Quicker method

$$\text{Required number} = \left[\frac{\text{Original length of side of cube}}{\text{New length of side of cube}} \right] = \left(\frac{3}{1} \right)^3 = \underline{\underline{27}}$$

23. D

Except Admiral, all others are equivalent ranks in three wings of Defence forces, while Admiral is the highest rank of Indian Navy.

24. C

Since the given word ADMINISTRATION does not contain 'U', therefore SITUATION can not be formed from it.

25. E

When a gun is fired, all the crows will fly away, except the one killed with shot.

Hence answer is E.