

TNPSC – GROUP IV

GENERAL STUDIES - 2018 (ENGLISH)

APTITUDE

1. The 7th term of the sequence 0.12, 0.012, 0.0012 _____ is
 (A) 1.2×10^6 (B) 1.2×10^{-6} (C) 1.2×10^7 **(D) 1.2×10^{-7}**

2. Simplify :
 $\frac{9}{8} \div \frac{3}{5}$ of $(\frac{3}{4} \div \frac{3}{5})$
 (A) $1\frac{11}{18}$ (B) $1\frac{5}{18}$ (C) $1\frac{13}{18}$ **(D) $1\frac{7}{18}$**

3. A sum of money triples itself at 8% per annum over a certain time. The time taken is
 (A) 20 years (B) 22 years **(C) 25 years** (D) 30 years

4. Find the correct relationship between G.C.D. and L.C.M.
 1. G.C.D. = L.C.M.
 2. G.C.D. \leq L.C.M.
 3. L.C.M. \leq G.C.D.
 4. L.C.M. $>$ G.C.D.
 (A) I (B) II (C) III **(D) IV**

5. If p,q,r,s,t are in A.P, then the value of p-4q + 6r - 4s + t is
 (A) 1 (B) 2 (C) 3 **(D) 0**

6. The G.C.D. and L.C.M. of 90, 150, 225 is
(A) 15, 450 (B) 450, 15 (C) 90, 225 (D) 225, 150

7. If $y - \frac{1}{y} = 6$ find the value of $y^2 - \frac{1}{y^3}$
 (A) 216 (B) 222 **(C) 234** (D) 228

8. Reciprocal of 0 is _____
 (A) 0 (B) 1
 (C) ∞ **(D) no reciprocal**

9. Which one of the following statements is false?
 (A) Among the common divisions of given numbers, the greatest divisor is the G.C.D.
(B) If the G.C.D. of any two numbers is 1 they are said to be prime numbers
 (C) Among the common multiples of given numbers, the least is the L.C.M.
 (D) The product of any two numbers is equal to the product of their G.C.D. and L.C.M.

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10. If the product of four consecutive terms in G.P. in 625. Find the first term.
(A) 15 (B) 25 (C) 5 (D) 35
11. Gain or loss percent is always calculated on
(A) cost price (B) selling price
(C) gain (D) loss
12. A student goes to his school from his house at a speed 3 kw/hr and returns at a speed of 2 km/hr. If he takes 5 hours going and coming the distance between his house and school is
(A) 5 km (B) 5.5. km (C) 6 km (D) 6.5 km
13. If x , $2x + 2$, $3x + 3$ are in G.P. than $11x$ $22x + 22x + 33x + 33$ form
(A) an A.P.
(B) a G.P.
(C) a constant sequence
(D) Neither A.P. nor a G.P.
14. The sum of three numbers is 264 if the first number be twice the second and third number be one-third of the first, then the second number is
(A) 48 (B) 72 (C) 54 (D) 64
15. If $1^2 + 2^2 + 3^2 + \dots + 10^2 = 385$ then $2^2 + 4^2 + 6^2 + \dots + 20^2$ is
(A) 770 (B) 1150 (C) 1540 (D) 385×385
16. In the ratio $x\%$ of y to $y\%$ of x , its fraction value is equals to
(A) $\frac{1}{2}$ (B) xy (C) $\frac{x}{y}$ (D) 1
17. Arun is now half as old as his father. Twelve years ago the father's age was three times as old as Arun. Now the present age of his father's age is
(A) 24 years (B) 36 years (C) 48 years (D) 50 years
18. If a , b , c are in A.P., then 3^a , 3^b , 3^c are in
(A) A.P.
(B) G.P.
(C) A.P. and G.P.
(D) None of these

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19. If $-1 < T < 1$, then the sum of infinite number of a geometric series is

(A) $\frac{a(r^n-1)}{r-1}$

(B) $\frac{a(l-r^n)}{r-1}$

(C) $\frac{a}{l-r}$

(D) na

20. The angle in semi circle is a _____

(A) acute angle

(B) obtuse angle

(C) straight angle

(D) right angle

21. If $\frac{a}{3} = \frac{b}{4} = \frac{c}{7}$ then $\frac{a+b+c}{c}$ is

(A) 7

(B) 2

(C) $\frac{1}{2}$

(D) $\frac{1}{7}$

22. Which is biggest ratio?

2 : 3, 3 : 5, 4 : 7, 5 : 8

(A) 3 : 5

(B) 4 : 7

(C) 5 : 8

(D) 2 : 3

