

Question 1: The reflection of a positive integer is obtained by reversing the digits. For example, 321 is the reflection of 123. The difference between a five-digit integer and its reflection must be divisible by which of the following?

- A. 2 B. 4 C. 5 D. 6 E. 9

Question 2: What is the remainder of the expression $(7^0 + 7^1 + 7^2 + \dots + 7^{20})$ when divided by 14?

Question 3: If $(3)^{(2x)} = (3)^{(2)} * (3)^{(x)}$, what is the value of x?

Question 4: 9. Given three sets $R1 = \{-1, -2, -3\}$, $R2 = \{1, 2, 3\}$ and $R3 = \{-3, -2, -1, 1, 2, 3\}$. And Standard Deviation of R1 is S1, Standard Deviation of R2 is S2 and Standard Deviation of R3 is S3.

I. $S1 > S2$

II. $S2 < 0$

III. $S3 = 0$

A. Only I

B. Only II

C. Only III

Question 5: The value of $[\text{Sqrt}(15.987) * 601.146] / [15.78 * 301.124]$ is ?

Question 6: For a given series $P1, P2, P3, \dots, Pn$; $P1 = 1$. And for $n \geq 2$, if $P(n+1) = 5Pn + 4$, find Pi such that 'i' is the smallest number divisible by 7?

Note: 1, 2, 3, i, n and n+1 are suffixes.

Question 7: Given that set A consists of positive odd numbers less than 100, set B consists of positive even numbers less than 5 and if set C consists of product of set A and set B. Find the number of numbers possible in set C?

Question 8: When 'k' is divided by 12 it gives remainder 5, what will be remainder when k^2 is divided by 8?

Question 9: The value of $(14^{10} + 7^2)^2 - (14^{10} - 7^2)^2$ is?

Question 10: Given $a1 = -9$, $a2 = -4$, such that $a_n = a(n-1) - a(n-2)$. Calculate sum of first 100 terms?

Note: (Here 1, 2, (n - 1) and (n - 2) are suffixes)

Question 11: If $-6 \leq x \leq 4$ and $-10 \leq y \leq 4$, then what is the greatest value of $(-x^2 + y^4)$?

A. 16

B. 240

C. 10,000

D. 10,036

& so on.....

Question 12: What is the nearest value of $\sqrt{171}$?

- A. 12
- B. 13
- C. 14
- & so on.....

Question 13: For the equation $x^2 - x - 2 \leq 0$; how many solutions are possible?

Question 14: Given a series 3, 1, 4, 2, 3, 1, 4, 2..... What is the product of the 67th and 68th term?

Question 15: Given $N = v * w * x * y * z - (v+w+x+y+z)$. If 'N' is an even integer, then how many of v, w, x, y, z will need to be even numbers?

Question 16: If $|x| \leq 6$; $|y| \leq 4$, then find the greatest possible value of $|x/y|$?

Question 17: If twice the average of x, y and z, when divided by 7 gives remainder 1, then what is the remainder, when average x, y and z is divided by 7?

Question 18: If a, b and c are 0, 1 or 2 and if $a.3^2 + b.3 + c = 25$, then what is the possible value of $a + b + c$?

Question 19: If a number, when divided by 5 gives remainder 3 and when divided by 4 gives remainder 2, then what is the remainder when the same number is divided by 10?

Question 20: Given a series of odd numbers from 1 to n. Find the probability, that a number selected at random will be an odd number?(provided 'n' is an odd number)

Question 21: If $a_1 = 2$ and $a_{n+1} = (a_n - 1)^2$, then find the value of a_{17} ?

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Question 23: The product of prime factors of 300.

- A. 15
- B. 30
- C. 45
- & so on....

Question 24: Given a series of numbers x, y, z, 0, 1, 1, 2, 3, 5, 8... If every number in the series is sum of the preceding two numbers, then what is value of x?

Question 25: Given a set of five numbers 27, 29, 35, 9, 25 on increasing each number by 'K' if the new mean of the set becomes 29.5, then what is the new median?

Question 26: If $a_1 = 2$ and $a_{n+1} = (a_n - 1)^2$, then what is the value of a_{15} ?

- A. 28
- B. 216

- C. 232
- D. 2128
- E. 2256

Question 27: If $a_1=2$ and $a_{n+1} = (a_{n-1})^2$, then what is the value of a_{15} ?

- A. 2^8
- B. 2^{16}
- C. 2^{32}
- D. 2^{128}
- E. 2^{256}

Question 28: Given 'n' is a positive integer. What is the least value of n, such that the product $12n$ should be a perfect square of some integer?

Question 29: $(0.9/1.1)^2 + (1.1/0.9)^2$

Col B: 2

Question 30: If the median of seven Consecutive integers is $2n+2$, then find the Arithmetic mean of the sequence?

Question 31: If 'N' is a 3 digit number where hundreds place is 'x' and units place is 'y' then what will be the factor for $N-100x-y$?

- A. 3
- B. 4
- C. 5
- D. 6
- E. 7

Question 32: If 'S' is a set of all integers that are multiples of 3 & multiples of 5, provided it should be of 2 digits, then find the range of S?

- A. 81
- B. 77
- C. 87
- D. 89
- E. 91

Question 33: Find the number of possible values of x & y in the expression $(5+x)/(7+y)$, so that the resultant ratio is 5:7 where x and y lie between 12 and 29?

Question 34: Given the average of seven numbers as 35. When k is added to it, if the average of eight numbers remains 35, then what is the value of k?

Question 35: For $n/12$, what is the value of n whose remainder is odd integer?

Question 36: If 'x' and 'y' are integers between 12 and 30, then for $(5+x)/(7+y)$ how many sets of x & y for the given expression will be having same ratio?

Question 37: Given five consecutive numbers, if the highest value of them is x, then what is the average of the numbers?

Question 38: Given N is a positive odd integer. If the number in the tens digit is double the digit at the units place then what is the value of N?

- A. $n > 90$
- B. $30 < N$
- C. $N > 50$
- D. $30 < N < 50$

Question 39: Given three series

I: $x, 2x, 3x, 4x, 5x$

II: $x, x+1, x+2, x+3$

III: $1/x, 1/x+1, 1/x+2, 1/x+3$

Which of the series has same mean and median?

Question 40: If $-10 \leq X \leq 6$, then what is the maximum possible greatest value of $-X^2 + X^4$?

Question 41: If 'A' is three times of 'B' and 'B' is five times of 'C', then how many times is 'A' when compared to 'C'?

A.15

B.14C

C.15C

D.10C

Question 42: If there is a series in which the first number A_1 is 4 and $A_{n+1} = (A_n - 3)^2$, then what is the 25th number ?

(Here 1, n, n+1 are suffixes)

Question 43: The range of list-1 is 16 and range of list-2 is 10(approx values). If both the lists are combined then what will be the minimum value of their range?

Question 44: if $y = 2x + 3$, $xy < 0$ value of x lies between ?

Question 45: If integer defined as $(-1)^n$ then which of following is applicable for integers a & b

I) $a+b = a*b$

II) $(a+b) = a + b$

III) $a*b = (a)*(b)$

a) both 1 & 2 b) only 1 c) only 2 d) none e) all

Question 46: Given x_1, x_2, x_3 can do a job together in 4 hrs if x_1, x_2 can do the same job in 6 hrs then how long it would take for x_3 to do that job alone.

Question 47: LCM of x and y is 24 and of z and w is 30 . what is LCM of x, y, z, w .