

INSTITUTE OF MATHEMATICS EDUCATION

MATHS APTITUDE TEST - 2017 (Primary Level)

Std. - V and VI
Time : 2.00 to 4.00

Question Paper

Date : 15.07.2017
Total Marks : 100

Instructions : 1) Use separate answer sheet to mark answers. 2) First read question carefully, get the answer and darken the circle of respective correct alternative on answer sheet 3) No change is allowed, so think of twice and then darken the appropriate circle. 4) Note that half circle darkened or more than one circle darkened, cross or tick on the circle, will not be given marks. 5) If questions are not attempted marks will not be given. 6) You can use separate paper for doing rough work.

- Q. 1)** In the number 45095 if the middle digit '0' is removed by how much place value of 4 will differ?
A) 36000 B) 3600 C) 44000 D) Any other
- Q. 2)** How many bundles of notes having of denomination ₹ 500 will make ₹ one million, if each bundle contains 100 notes?
A) 20 B) 10 C) 200 D) Any other
- Q. 3)** How many times 72 is subtracted from 720073 so that remainder is 1 ?
A) 1001 B) 10003 C) 10001 D) 101
- Q. 4)** How many two digit twin primes are there?
A) 4 B) 6 C) 8 D) none
- Q. 5)** $x^2 + 1$ is even then which of the following is even?
A) x^2 B) $x^2 + 2$ C) $x^2 - 2$ D) $x^2 - 1$
- Q. 6)** Find 29th odd number before 176.
A) 117 B) 119 C) 121 D) 118
- Q. 7)** How many two digit numbers have only three factors?
A) 3 B) 2 C) 4 D) Any other
- Q. 8)** Which smallest number should be added to 7309 so that it will be completely divisible by 55?
A) 1 B) 6 C) 61 D) 16
- Q. 9)** GCD of two consecutive numbers is
A) 1 B) their product
C) is odd number D) cannot say
- Q. 10)** Find the difference between LCM and GCD of numbers 77 and 1001.
A) 924 B) 988 C) 990 D) Any other
- Q. 11)** Which of the following is the smallest of fractions
 $\frac{5}{28}, \frac{1}{6}, \frac{5}{33}, \frac{1}{7}, \frac{10}{48}$?
A) $\frac{1}{7}$ B) $\frac{1}{6}$ C) $\frac{10}{48}$ D) $\frac{5}{33}$
- Q. 12)** If $\frac{59}{23} - A = \frac{72}{46}$ then find A.
A) 118 B) 1 C) 46 D) Any other
- Q. 13)** $62.917 \div 0.17 = ?$
A) 37.01 B) 3.701 C) 370.1 D) 0.3701
- Q. 14)** $0.25 + 0.025 + 0.0025 + 2.5 = ?$
A) 2.7775 B) 5.2777 C) 2.5777 D) Any other
- Q. 15)** 38 hectogram \div 1.9 = kg.?
A) 20 kg B) 0.2 kg. C) 2 kg. D) Any other
- Q. 16)** 20 cm. 5 mm. \times 15 = m.?
A) 3.75 m. B) 3.075 m. C) 30.75 m. D) Any other
- Q. 17)** How will you write MDCIX in our international system?
A) 1409 B) 1611 C) 1609 D) 1411
- Q. 18)** Write the time half past seven in the evening in 12 hrs. clock.
A) 7:30 p.m. B) 7:30 a.m.
C) 6:30 p.m. D) 7:45 p.m.
- Q. 19)** If $6n - 5 = 20 + n$, then $n = ?$
A) $\frac{15}{7}$ B) $\frac{25}{7}$ C) 5 D) Any other
- Q. 20)** MAT exam is to be conducted on 3rd Saturday i.e. 19th August 2017 then what will be the probable date of 3rd Saturday of MAT 2019 ?
A) 16th Aug B) 17th Aug
C) 18th Aug D) 20th Aug
- Q. 21)** A car can travel 150 km. in 9 liters of petrol. How much petrol will be required to cover distance of 350 km?
A) 20 liters B) 21 liters C) 23 liters D) Any other
- Q. 22)** $484 \div 11 - 8 \times 5 = ?$
A) 44 B) 4 C) 84 D) Any other
- Q. 23)** Perimeter of square is 54.0 cm. then find its area.
A) 169 sqcm. B) 172 sqcm.
C) 169.25 sqcm. D) 182.25 sqcm.
- Q. 24)** If SP is $\frac{4}{5}$ th of CP then which of the following true?
A) There is loss
B) There is profit
C) There is no loss no profit
D) Cannot say.
- Q. 25)** $\frac{1}{8} =$ how many percent?
A) 10 B) 20 C) $12\frac{1}{2}$ D) $6\frac{1}{4}$
- Q. 26)** How many three digit numbers are there divisible by 3 ?
A) 299 B) 333 C) 300 D) 330

Q. 27) What number should be subtracted from 24893 so that the number is divisible by 45?

- A) 7 B) 3 C) 9 D) 8

Q. 28) If $24 \times 6 = 144$, and $24 \times 8 = 192$ then what is G.C.D. of 144 and 192?

- A) 24 B) 72 C) 96 D) 48

Q. 29) Find 17th even number next to 100.

- A) 134 B) 132 C) 136 D) 130

Q. 30) Get the following addition and choose the answer for $B - A = ?$

$$\text{If } 3\frac{6}{23} - 1\frac{2}{23} = A\frac{B}{23}, \text{ then } B - A = ?$$

- A) 3 B) 4 C) 2 D) 0

Q. 31) $8.14\overline{2857}$ is the recurring decimal form of which fraction?

- A) $\frac{43}{7}$ B) $\frac{53}{7}$ C) $\frac{57}{7}$ D) $\frac{59}{7}$

Q. 32) 75 liter 750 ml. $\times 23 = ?$ choose correct answer of the following?

- A) 1742.25 litre B) 1740.25 litre
C) 174.225 litre D) 1740.50 litre

Q. 33) Convert 5.75 hrs. into minutes.

- A) 300 B) 340 C) 540 D) 345

Q. 34) Raju runs 10 rounds around a circle every day. If he takes 20 minutes for one round, find how long he runs daily.

- A) 3.1 hrs. B) 3 hrs 10 min.
C) 3 hrs 20 min. D) any other

Q. 35) This year Maharashtra day is on Monday then on which day Teachers day will fall?

- A) Monday B) Sunday
C) Wednesday D) Tuesday

Q. 36) Simplify : $\{256 \div 4 + 16 \times 4\} \div (2 \times 4 + 8)$

- A) 16 B) 8 C) $\frac{16}{3}$ D) Any other

Q. 37) 50 chairs cost ₹ m and 10 tables cost ₹ n. Find the cost of 5 sets of chair and table?

- A) ₹ $\frac{m+5n}{10}$ B) ₹ $\frac{m+5n}{50}$
C) ₹ $\frac{5m+n}{10}$ D) ₹ $\frac{5m-n}{10}$

Q. 38) Isosceles triangles with equal sides two times of its base are drawn on each side of regular pentagon such that base of the triangle lies on side of pentagon. If length of each side of pentagon is 'a' cm. how many times perimeter of new figure is that of regular pentagon?

- A) 2 times B) 4 times C) 8 times D) Any other

Q. 39) If $6\frac{1}{4}\%$ of 1600 = X% of 1, then x = ?

- A) 100 B) 1000 C) 10000 D) 1

Q. 40) Cost price of mangoes of type 'A' is ₹ 450 of one dozen box and of type 'B' ₹ 1500 for a box of 5 dozen and both boxes are to be sold at ₹ 400 per dozen find profit / loss percent?

- A) $23\frac{1}{13}\%$ profit B) $23\frac{1}{13}\%$ loss
C) $13\frac{1}{23}\%$ profit D) $13\frac{1}{23}\%$ loss

Q. 41) What is the smallest of the following four numbers?

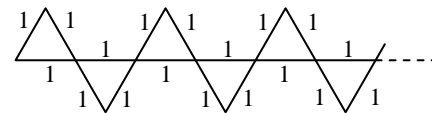
- A) $8.\overline{1416}$ B) $8.\overline{1416}$ C) $8.\overline{1416}$ D) 8.1416

Q. 42) A sixty digit number in the following manner 1100, 1100, 1100, 1100 60 digits.

if divided by 5 how many times the digit '2' will appear in the quotient?

- A) 29 B) 28 C) 30 D) Any other

Q. 43) An equilateral triangle with side 3 cm is divided into small equilateral triangles of side 1 cm. each and are arranged in following manner



then how many times perimeter of new figure will be that of original triangle?

- A) 2 B) 3 C) 4 D) none

Q. 44) Simplify : $2 + \frac{1}{2 + \frac{1}{2 + \frac{1}{2}}}$

- A) $2\frac{5}{12}$ B) $3\frac{5}{12}$ C) $1\frac{5}{12}$ D) Any other

Q. 45) 10% of 'x' + 20% of '2x' + 25% of '4x' = how many percent of x?

- A) 100% B) 150% C) 200% D) 50%

Q. 46) $1^3, 2^3, 3^3, 4^3, 5^3, \dots, 64^3$. In this series of cubes, some are squares also, how many are only cubes not squares?

- A) 12 B) 24 C) 46 D) 56

Q. 47) If first 100 odd natural numbers are added together and the sum is divided by 2, then what will be remainder?

- A) 0 B) 1 C) 2 D) 3

Q. 48) a, b, c, d, e are five consecutive natural numbers such that 8 times of their sum is equal to product of all numbers, then what is the middle consecutive number?

- A) 5 B) 2 C) 3 D) 4

Q. 49) If a number is divided by 1,00,000, the quotient is 1 and remainder is 2017 and if the same number is divided by 2017, then what will be its remainder?

- A) 1167 B) 1162 C) 11067 D) 167

Q. 50) Using digits 2, 0, 1, 7 once only if 4 digit numbers are formed, then how many numbers can be formed at the most?

- A) 24 B) 20 C) 64 D) 18