

# Brihan Mumbai Ganit Adhyapak Mandal, Mumbai

Date : 28-7-2018  
Std. : VIII

Maths Concept Exam 2018

Time : 3 p.m. to 5 p.m.  
Max. Marks : 100

- Instructions :
- 1) Question paper and answersheet are separate.
  - 2) Rough work is to be done in the space provided in each page of the question paper.
  - 3) Do not fold the answersheet.
  - 4) Colour the correct alternative with the ball-pen as follows.
- For Example : How many days does the month of March have ?  
A) 30    B) 31    C) 29    D) 28  
Correct answer is B; so B should be coloured as shown below.
- A)     C)    D)

- 1) Average of 20, 13, x, 15, 20, 16, 16 is 16. Find x  
A) 16    B) 12    C) 15    D) 13
- 2) Pallavi kept Rs. 50,000 in a bank for 2 years with simple interest. After 2 years she got Rs. 60,000. What was the rate of interest ?  
A) 5%    B)  $8\frac{1}{3}\%$     C) 12%    D) 10%
- 3) How many edges does a triangular pyramid has ?  
A) 6    B) 9    C) 3    D) 12
- 4) 20% of  $\frac{7}{10}$  = \_\_\_\_\_  
A) 0.014    B) 14    C) 1.4    D) 0.14
- 5) Solve.  $13 + 3 - \{(-12) + (-2) + 5 [8 - (-4)]\}$   
A) 58    B) -62    C) 30    D) -30
- 6) Multiply :  $(x + 7)(x - 5) =$  \_\_\_\_\_  
A)  $x^2 + 2x - 35$     B)  $x^2 + 2x + 35$     C)  $x^2 - 2x - 35$     D)  $x^2 - 2x + 35$  (P.T.O.)

Rough work



- 16) Difference between the ages of Anand and his elder sister is 8 years.  
What will be the sum of their ages after 3 years? (Take sister's age as  $x$  years.)  
A)  $2x + 14$       B)  $2x + 2$       C)  $2x - 5$       D)  $2x - 2$
- 17) Joseph sold his T.V. of Rs. 42,700 for Rs. 39,711. What is the percentage of loss?  
A) 7%      B) 6%      C) 7.5%      D) 8%
- 18) Kiran scored 90 marks in his science test which is  $\frac{5}{6}$  of the total marks.  
What are the total marks for the test?  
A) 96      B) 75      C) 104      D) 108
- 19) Solve  $2\frac{1}{3} - 4\frac{2}{5} - 3\frac{1}{5}$   
A)  $\frac{79}{15}$       B)  $\frac{17}{15}$       C)  $-\frac{79}{15}$       D)  $-\frac{17}{15}$
- 20)  $3 \times 10^4 + 5 \times 10^2 + 4 \times 10^0 + 2 \times 10^3 = \underline{\hspace{2cm}}$   
A) 32054      B) 32405      C) 23504      D) 32504
- 21) How many pairs of twin prime numbers are there between 1 to 50?  
A) 6      B) 5      C) 4      D) 7
- 22) If the side of cube is 1.1 m. then its volume will be \_\_\_\_\_  
A) 1331 cum.      B) 13.31 cum.      C) 133.1 cum.      D) 1.331 cum.
- 23) G.C.D. of two numbers is 30 and their L.C.M. is 6 times their G.C.D.  
If one of the numbers is 60 find the other number.  
A) 180      B) 30      C) 90      D) 3
- 24) If a piece of length 0.09 m. is cut from a rope of length 9.99 m.  
What will be the length of the remaining rope?  
A) 9.099 m.      B) 9.09 m.      C) 9.9 m.      D) 9 m.

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Rough work

25) Mahipal exchanged his 110 coins of 50 paise and 50 coins of 2 rupees against the coins of 5 rupees. How many 5 rupee coins will he get ?

- A) 50                      B) 55                      C) 31                      D) 41

26)  $(5^0 \times 3) \times m^0 = \underline{\hspace{2cm}}$

- A) 15m                      B) m                      C) 1                      D) 3

27) Find the ratio of 1st quantity with the 2nd quantity.

1 litre and 250 mililitre, 750 mililitre

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

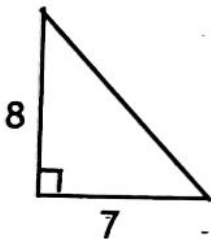
28)  $0.4 \times 0.04 \times 0.0004 = \underline{\hspace{2cm}}$

- A) 0.64                      B) 0.064                      C) 0.00064                      D) 0.0000064

29)  $\frac{121^2 - 1}{11^2 - 1} = ?$

- A) 10                      B) 122                      C) 12                      D) 111

30)



Observe the figure and find the value of x ?

- A)  $\sqrt{113}$                       B)  $\sqrt{15}$   
C)  $\sqrt{56}$                       D)  $\sqrt{103}$

31)  $(2x + 8)$  and  $(x - 2)$  are the angles in the linear pair. Find x.

- A) 58                      B) 56                      C) 124                      D) 28

32)  $(4x^2y) \times (7xy) \div 56x^2y^2 = \underline{\hspace{2cm}}$

- A)  $\frac{2}{x}$                       B)  $\frac{x}{2}$                       C)  $\frac{2}{x^2}$                       D)  $\frac{2x^2}{y}$

Rough work

- 33) If  $\frac{x-6}{9} = 18 - x$  then  $x = ?$   
 A) 1.68                      B) 16.8                      C) 168                      D) 0.168
- 34) At what price the pen should be sold to earn a profit of  $\frac{1}{4}$  times the cost price, if the cost price of the pen is Rs. 20  
 A) Rs. 30                      B) Rs. 25                      C) Rs. 15                      D) Rs. 24
- 35) The number 0.00000000036 is written in the standard form as \_\_\_\_\_  
 A)  $3.6 \times 10^{-10}$                       B)  $3.6 \times 10^{-11}$                       C)  $36 \times 10^{-12}$                       D)  $36 \times 10^{-10}$
- 36)  $\sqrt{22^{4m-8}} = 22$  then  $m = ?$   
 A) 2                      B)  $\frac{9}{4}$                       C)  $\frac{1}{2}$                       D)  $\frac{5}{2}$
- 37) Supplementary angle of an angle  $x$  is  $140^\circ$  Then what is the measure of complimentary angle of  $x^\circ$   
 A)  $40^\circ$                       B)  $50^\circ$                       C)  $90^\circ$                       D)  $80^\circ$
- 38) The length of a rectangle is 3 times its breadth. area of the rectangle is 108 sq. m. Find the length of the rectangle.  
 A) 6m                      B) 12m                      C) 18m                      D) 36m
- 39) Expand.  $(3p - 4q)^2 =$  \_\_\_\_\_  
 A)  $9p^2 - 16q^2$                       B)  $9p^2 + 16q^2$                       C)  $9p^2 - 12pq + 16q^2$                       D)  $9p^2 - 24pq + 16q^2$
- 40) Amit completes the book within 15 days by reading 12 pages per day. If he starts reading 10 pages per day, how many days does he require to complete the book ?  
 A) 12                      B) 10                      C) 18                      D) 8
- 41) Two angles are adjacent angles. How many common arms do they have ?  
 A) 0                      B) 1                      C) 2                      D) 3

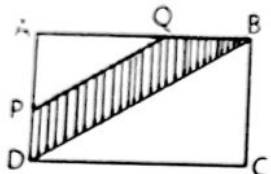
(P.T.O.)

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Rough work

42) A cuboid has length 0.6 m, breadth 0.4m. and volume 0.072 cu. m. Find the height of the cuboid  
 A) 0.3 m                      B) 3 m.                      C) 0.03 m.                      D) 3.3 m.

43) If  $a + b = 4$ ,  $ab = 1$  then  $a^2 + b^2 = ?$   
 A) 16                      B) 17                      C) 15                      D) 14

44)  ABCD is a square of side 4cm. P and Q are the mid points of the sides AD and AB respectively. then the area of the shaded portion is \_\_\_\_\_

A) 6 sq.cm.                      B) 4 sq.cm.                      C) 10 sq.cm.                      D) 16 sq.cm.

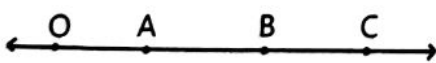
45) 1623 A is completely divisible by the numbers 2, 3 and 5. Then A = \_\_\_\_\_  
 A) 5                      B) 3                      C) 0                      D) 2

46) Measure of the semi circular arc is \_\_\_\_\_  
 A)  $180^{\circ}$                       B)  $90^{\circ}$                       C)  $360^{\circ}$                       D)  $270^{\circ}$

47) Which of the following number is a square as well as triangular number ?  
 A) 16                      B) 25                      C) 36                      D) 49

48) How much should be added to  $\frac{5}{13}$  to get  $\frac{7}{13}$  ?  
 A)  $\frac{2}{13}$                       B)  $-\frac{2}{13}$                       C)  $\frac{12}{13}$                       D)  $\frac{12}{26}$

49) In the given figure, Which of the following is the pair of opposite rays ?



A) ray OA, ray AO                      B) ray BA, ray BC  
 C) ray AB, ray BC                      D) ray CA, ray AC

50) Factors of  $4x^2 - 25y^2$  are \_\_\_\_\_  
 A)  $(4x + 5y)(4x - 5y)$                       B)  $(2x - 5y)(2x - 5y)$                       C)  $(2x + 5y)(2x - 5y)$                       D)  $(2x - 5y^2)(2x + 5y^2)$



Rough work