# ITBP PUBLIC SCHOOL

### SUMMER VACATION HOLIDAY HOMEWORK

### FOR CLASS – VIII , SESSION -2020-21

## SUBJECT- ENGLISH

### "Books are a uniquely portable magic"

**Read the following stories:**

**Honeydew**: 4. BepinChoudhary's Lapse of Memory.

        5.The Summit Within

**It so happened**: 4. The Treasure Within

        5. Princess September

### Positivity always wins…Always

☐    Keeping the above thought in mind. Create a newspaper of your own showing all positive things which you have noticed during this pandemic Covid 19.

☐    Collage Making: Make a collage based on any two events during the

        World War 1 (L-1 The Best Christmas Present in the World)

☐    Poster Making: Collect information on 'Disaster preparedness' and

        prepare a poster on the same (L-2 The Tsunami).

☐    Diary Entry: Suppose you were one of the victims of Tsunami.

        Write a diary entry for the same.

☐    Create a comic of your own using story 'How camel got its hump'

# विषय – हिंदी

1).कबीर के कोई दो दोहे याद करके लिखें।

2).इंटरनेट का प्रयोग बच्चों के विकास में सहायक है या बाधक विषय पर पक्ष या विपक्ष में अपने विचार रखें।

3).व्याकरण पाठ एक 'भाषा' पढ़ें व इसके आधार पर मातृभाषा के महत्व पर अनुच्छेद लिखें। (80 से 100 शब्दों में )

4).ग्रीष्मावकाश में पर्यावरण संरक्षण में आपकी क्या भूमिका रही इस विषय पर लगभग 20 से 30पंक्तियों में अपने

विचार लिखें।

5).हिंदी भाषा क्षेत्र में ख्याति अर्जित करने वाली किन्हीं पांच कवयित्रियों या लेखिकाओं के नाम लिखकर उनकी किसी एक रचना का उल्लेख कीजिए ।

6).फसलों से संबंधित त्योहारों की सूची बनाकर लिखिए।

7). किसी पत्रिका से अपनी मनपसंद 3 कहानियां पढ़कर उनका सार अपने शब्दों में लिखने का प्रयास करें ।

8).अनुमान कीजिए यदि बस जीवित प्राणी होती, बोल सकती तो वह अपनी बुरी हालत और भारी बोझ के कष्ट को किन शब्दों में व्यक्त करती ?सचित्र वर्णन कीजिए ।

9).संचार के विभिन्न साधन जैसे रनर्स, घोड़े, कबूतर ,अनेक प्रकार की चिट्ठियां ,मोबाइल, तार आदि का सचित्र वर्णन कीजिए।

10).अपनी पाठ्य पुस्तक के पढ़ाए गए सभी पाठों में पूछे गए प्रश्नों के उत्तर याद करिए ।

11).निर्देशानुसार कीजिए--

1). पर्यायवाची (1 से 15) करिए।

2). विलोम (1 से 15) करें।

3). श्रुतिसमभिन्नार्थक( 1 से 10) करें।

4). अनेक शब्दों के लिए एक शब्द (1 से 15) करें।

5). अनेकार्थक शब्द( 1 से 15) करें।

6).(1 से 20) मुहावरों का अर्थ लिखकर उनका वाक्य में प्रयोग करें।

7).(1 से 10) लोकोक्तियों का अर्थ लिखकर उनका वाक्य में प्रयोग करें।

* प्रश्न 11, व्याकरण कार्य को याद भी करना है।

* कक्षा में अब तक कराए गए पूर्ण कार्य का पुनः लिखकर अभ्यास करें ।

* उपर्युक्त दिया गया सारा कार्य ग्रीष्मावकाश की उत्तर पुस्तिका में करिए।


# SUBJECT - SOCIAL SCIENCE

- **chart work** - flowchart to explain the different steps involved in the passing of an ordinary bill and a money bill.
- collect the pictures of Indian presidents since 1947 to 2020 and paste them in your scrapbook.
- collect the results of the 17th loksabha election and find out following facts .Also do it in your scrapbook
  1. the political party that has got maximum number of votes
  2. the nature of government formed (a single party, or 2 or more parties)

3. which state has the highest / least number of MPs in loksabha? Why do you think this is so?

● collect pictures of buildings built during British period in Delhi and Write a few lines on the architectural design used by the British. Do this in your scrapbook

● Write a short note on Delhi related to these topics:

1. Which are the seven cities of Delhi and who built them.

2. Describe the design of New Delhi during the British reign

3. Planning a new capital.

## SUBJECT – MATHS

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**Name of the student_____**

**Class & Sec-VIII__**                                          **Topic 1 : EXPONENTS & POWERS**

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**MULTIPLE CHOICE QUESTIONS**

**1.** What is the value of $(-1)^{-1}$?

    I. 0

    II. -1

    III. 1

    IV. None of these

**2.** Which of the following is the value of 'm' in $6^m / 6^{-3} = 6^5$?

    I. -3

    II. -2

    III. 3

    IV. 2

**3.** Which of the following is the standard form of 0.00001275?

    I. $1.275 * 10^{-5}$

    II. $1.275 * 10^5$

III. $127.5 * 10^{-7}$

IV. $127.5 * 10^7$

4. Which of the following is used as a form of $5.05 * 10^6$?

   I. 505000

   II. 505000000

   III. 5050000

   IV. 50500000

5. For which of the following is m= 8?

   I. $(5^m \times 5^{-3}) / 5^2 = 5^3$

   II. $-(5^m \times 5^{-3}) / 5^3 = 5^2$

   III. $(5^m \times 5^3) / 5^2 = 5^3$

   IV. None of above

6. 1 micron = 1/1000000 m. which of the following is its standard form?

   I. $1.1 * 10^{-5}$

   II. $1.6 * 10^{-5}$

   III. $0.1 * 10^{-6}$

   IV. $1.0 * 10^{-6}$

7. $[(1 / 2)^{-1} + (2 /3 )^2 - (3/4)^0]^{-2}$ is equal to:

   I. 81/484

   II. 81/169

   III. 169/81

   IV. 16/81

8. Which of the following = $(100 - 99^0) * 100$?

   I. 10000

   II. 100

   III. 9900

   IV. 99000

**9.** What is the reciprocal of $(-3 / 4)^0$?

    I. -1

    II. 1

    III. -4/3

    IV. 4/3

**10.** Which of the following is the value of $(4 / 5)^{-9} / (4 / 5)^{-9}$?

    I. $(4/5)^{18}$

    II. 4/5

    III. 1

    IV. $(5/4)^9$

**11.** Find the value of $5^{-3} * 1/5^3$.

**12.** Simplify $2^5 / 2^{-6}$.

**13.** Express $4^{-3}$ as a power with base 2.

**14.** Simplify and write the answer in exponential form: $(2^5 / 2^8)^5 * 2^{-5}$.

**15.** Find m so that $(-3)^{m+1} * (-3)^5 = (-3)^7$.

**16.** Find the value of $(2/3)^{-2}$.

**17.** Simplify: $(5/8)^{-7} * (8/5)^{-5}$.

**18.** Simplify $(-4)^{-10} * (-4)^5$

Express the following numbers in standard form. (**19 - 23**)

**19.** 0.0000000000085

**20.** 0.00000000000942

**21.** 6020000000000000

**22.** 0.00000000837

**23.** 31860000000

**24.** 343 can be expressed in power of 7 as_____.

**25.** Usual form of 83700 is _____

**26.** Any number having power zero gives _____ .

**27.** Givean example of reciprocal of negative power _____

**TRUE / FALSE** (**28. to 30.**) Give reasons for your answers.

**28.** $4^9$ is greater than $16^3$.

**29.** One million = $10^7$

**30.** $(10 + 10)^{10} = 10^{10} + 10^{10}$

**SHORT QUESTIONS**

**31.** Find the value of: $\left(\frac{1}{4}\right)^{-2} + \left(\frac{1}{3}\right)^{-3} + \left(\frac{1}{2}\right)^{-4}$

**32.** Simplify: $\left[\left(\frac{-4}{5}\right)^{-2}\right]^2$

**33.** What is the reciprocal of 0.1?

**34.** What is the value of x in $5^x \div 5^{-3} = 5^5$?

**35.** Can be $\frac{a^m}{b^m}$ equal to $\left(\frac{a}{b}\right)^m$?

**36.** Compare $7 * 10^{-6}$ and $129 * 10^{-7}$.

**37.** The size of a plant cell is 0.00001275 m. express it in standard form.

**38.** If the thickness of a paper sheet is 0.0016 cm, find the thickness of 100 sheets. Express the answer in standard form.

**39.** Simplify $(1 / 3^2)^3$.

**40.** Evaluate: $(5^{-1} * 8^2) / (2^{-3} * 10^{-1})$.

**41.** Find the value of 'm' for which $6^m / 6^{-3} = 6^{5?}$

**42.** Evaluate $[(1/2)^{-1} - (1/3)^{-1}]^{-1}$.

**43.** Simplify: $(-3)^5 *(5/3)^5$.

**44** Find the value of m for which $5^m \div 5^{-3} = 5^5$.

**45** In a stack there are 5 books each of thickness 20 mm and 5 paper sheets each of thickness 0.016mm. What is the total thickness of the stack?

## LONG QUESTIONS

**46** Simplify and express each of the following in exponential form.

(a) $\left[\left(\dfrac{3}{7}\right)^4 \times \left(\dfrac{3}{7}\right)^5\right] \div \left(\dfrac{3}{7}\right)^7$

(b) $\left[\left(\dfrac{7}{11}\right)^5 \div \left(\dfrac{7}{11}\right)^2\right] \times \left(\dfrac{7}{11}\right)^2$

(c) $(3^7 \div 3^5)^4$

(d) $\left(\dfrac{a^6}{a^4}\right) \times a^5 \times a^0$

(e) $\left[\left(\dfrac{3}{5}\right)^3 \times \left(\dfrac{3}{5}\right)^8\right] \div \left[\left(\dfrac{3}{5}\right)^2 \times \left(\dfrac{3}{5}\right)^4\right]$

(f) $(5^{15} \div 5^{10}) \times 5^5$

**47.** Evaluate

(a) $\dfrac{7^8 \times a^{10} b^7 c^{12}}{7^6 \times a^8 b^4 c^{12}}$

(b) $\dfrac{5^4 \times 7^4 \times 2^7}{8 \times 49 \times 5^3}$

(c) $\dfrac{125 \times 5^2 \times a^7}{10^3 \times a^4}$

(d) $\dfrac{3^4 \times 12^3 \times 36}{2^5 \times 6^3}$

(e) $\left(\dfrac{6 \times 10}{2^2 \times 5^3}\right)^2 \times \dfrac{25}{27}$

(f) $\dfrac{15^4 \times 18^3}{3^3 \times 5^2 \times 12^2}$

(g) $\dfrac{6^4 \times 9^2 \times 25^3}{3^2 \times 4^2 \times 15^6}$

**48.** Evaluate :

If $\dfrac{p}{q} = \left(\dfrac{3}{2}\right)^2 \div \left(\dfrac{9}{4}\right)^0$, find the value of $\left(\dfrac{p}{q}\right)^3$.

**49.** By what number should $(-4)^5$ be divided so that the quotient may be equal to $(-4)$?

**50.** Express the following in exponential form.

(a) 3 x 3 x 3 x a x a x a x a x a          (b) a x a x b x b x b x c x c x c x c

(c) s x s x t x t x s x s x t

**51.** How many times of 30 must be added together to get a sum equal to 3.

**52.** Express each of the following numbers using exponential notations,

(a) 1024                    (b) 1029                    (c) $\dfrac{144}{875}$

**53.** Identify the greater number, in each of the following.

(a) $2^6$ or $6^2$          (b) $2^9$ or $9^2$          (c) $7.9 \times 10^4$ or $5.28 \times 10^5$

**54.** Express each of following as a product of powers of their prime factors,

(a) 9000                    (b) 2025                    (c) 800

**55.** Express each of the following in single exponential form

a.  $2^4 \times 4^2$

b.  $(-11)^2 \times (-2)^2$

c. $5^2 \times 7^2$

d.  $(-5)^5 \times (-5)$

e.  $(-3)^3 \times (-10)^3$

f. $2^3 \times 3^3$

**56.** The speed of light in vacuum is $3 \times 10^8$ m/s. Sunlight takes about 8 minutes to reach the Earth. Express distance of Sun from Earth in standard form.

**VERY LONG QUESTIONS**

**57.** Express the given information in Scientific notation (standard form) and then arrange them in ascending order of their size.

| S. N. | Deserts of the World | Area (in sq km) |
|---|---|---|
| 1. | Kalahari, South Africa | 932,400 |
| 2. | Thar, India | 199,430 |
| 3. | Gibson, Australia | 155,400 |
| 4. | Great Victoria, Australia | 647,500 |
| 5 | Sahara, North Africa | 8,598,800 |

**58.** Express the given information in scientific notation and then arrange them in descending order of their size.

| S. N. | Name of the planet | Mass (in kg) |
|---|---|---|
| 1. | Mercury | 3300000000000000000000000 |
| 2. | Venus | 48700000000000000000000000 |
| 3. | Earth | 59800000000000000000000000 |
| 4. | Mars | 6420000000000000000000000 |
| 5. | Jupiter | 1900000000000000000000000000 |
| 6. | Saturn | 569000000000000000000000000 |
| 7. | Uranus | 86900000000000000000000000 |
| 8. | Neptune | 102000000000000000000000000 |
| 9. | Pluto | 13100000000000000000000 |

**59.** A light year is the distance that light can travel in one year.
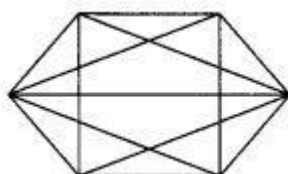1 light year = 9,460,000,000,000 km.
(a) Express one light year in scientific notation.
(b) The average distance between Earth and Sun is $1.496 \times 10^8$ km. Is the distance between Earth and the Sun greater than, less than or equal to one light year?



**60.** Geometry Application
The number of diagonals of an n-sided figure is $\frac{1}{2}(n^2 - 3n)$. Use the formula to find the number of diagonals for a 6-sided figure (hexagon).



**61.** Life Science
Bacteria can divide in every 20 minutes. So, 1 bacterium can multiply to 2 in 20 minutes, 4 in 40 minutes, and so on. How many bacteria will there be in 6 hours? Write your answer using exponents, then evaluate.

**62.** The major components of human blood are red blood cells, white blood cells, platelets and plasma. A typical red blood cell has a diameter of approx $7 \times 10^{-6}$ metre. A typical platelet has a diameter of approximately $2.33 \times 10^{-6}$ metre.

Which has a greater diameter, a red blood cell or a platelet?

**63.** A googol is the number 1 followed by 100 zeroes.

(a) How is a googol written as a power?

(b) How is a googol times a googol written as a power?

**64.** What's the Error?

A student said that $3^5/5^5$ is the same as 1/3.  What mistake has the student made?

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**Name of the student_____**

**Class & Sec-VIII__**                          **Topic 2 : SQUARES & SQUARE ROOTS**

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**MULTIPLE CHOICE QUESTIONS**

1. Which of the following can be a perfect square?

   (i)   A number ending in 3 or 7

   (ii)  A number ending with odd number of zeros

   (iii) A number ending with even number of zeros

   (iv) A number ending in 2.

2. Which of the following can be the square of a natural number 'n'?

   (i)   sum of the squares of first n natural numbers

   (ii)  sum of the first n natural numbers

   (iii) sum of first (n – 1) natural numbers

(iv) sum of first 'n' odd natural numbers.

**3.** Which of the following is the number non-perfect square numbers' between the square of the numbers n and n + 1?

(i)   n + 1
(ii)  n
(iii) 2n
(iv)  2n + 1

**4.** Which of the following is the difference between the squares of two consecutive natural number is:

(i)   sum of the two numbers

(ii)  difference of the numbers

(iii) twice the sum of the two numbers

(iv) twice the difference between the two numbers.

**5.** Which of the following is the number of non-perfect square number between 172 and 182?

(i)   613
(ii)  35
(iii) 34
(iv)  70

**6.** Which of the following is the difference between the squares of 21 and 22?

(i)   21
(ii)  22
(iii) 42
(iv)  43

**7.** Which of the following is the number of zeros in the square of 900?

(i)   3
(ii)  4
(iii) 5
(iv)  2

**8.** If a number of n-digits is a perfect square and 'n' is an even number, then which of the following is the number of digits of its square root?

(i)   $\frac{n-1}{2}$
(ii)  $\frac{n}{2}$
(iii) $\frac{n+1}{2}$
(iv)  2n

**9.** If a number of n-digits is perfect square and 'n' is an odd number, then which of the following is the number of digits of its square root?

(i)   $\frac{n-1}{2}$
(ii)  $\frac{n}{2}$
(iii) $\frac{n+1}{2}$
(iv)  2n

**10.** Which of the following is a pythagorean-triplet?

(i)   n, $(n^2 - 1)$ and $(n^2 + 1)$
(ii)  $(n - 1)$, $(n^2 - 1)$ and $(n^2 + 1)$
(iii) $(n + 1)$, $(n^2 - 1)$ and $(n^2 + 1)$
(iv) 2n, $(n^2 - 1)$ and $(n^2 + 1)$

**SHORT QUESTIONS**

**11.** Find the square root of 144 by the method of repeated subtraction.

**12.** There are 500 children in a school. For a P.T. drill they have to stand in such a manner that the number of rows is equal to number of columns. How many children would be left out in this arrangement?

**13.** A school collected Rs 2304 as fees from its students. If each student paid as many paise as there were students in the school, how many students were there in the school?

**14.** The area of a square field is 8281 m$^2$. Find the length of its side.

**15.** Find the square root of 15625

**16.** Simplify:

$$\left(\sqrt{81} + \sqrt{0.81} + \sqrt{0.0081}\right) \times \sqrt{10000}$$

**17.** Factorise: $p^2 - 10p + 25$.

**18.** 1225 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows and the number of plants in each row.

**19.** Find the smallest number by which 3645 should be divided so as to get a perfect square. Also, find the square root of the number so obtained.

**20.** For each of the following numbers, find the smallest number by which we divide it so as to get a perfect square. Also find the square root of the square numbers so obtained.

 (a) 37845

(b) 2800

(c) 45056

**21.** The students of Class VIII of a school donated Rs 2401 for Prime Minister's National Relief Fund. Each student donated as many rupees as the number of students in the Class. Find the number of students in the Class.

**22.** 2025 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows and the number of plants in each row.

**23.** 10404 students are sitting in a lecture room in such a manner that there are as many students in a row as there are rows in a lecture room. How many students are there in each row of a lecture room?

**TRUE / FALSE**

**24.** The Square root of an even perfect square is even and that of an odd Perfect square is odd.

**25.** Since there is no number whose square is negative the square root of a negative number is not defined.

**26.** If a number ends with an odd number of zeroes, then it cannot have a square root which is a natural number.

**27.** If the units digit of a number is 2, 3, 7 or 8 then square root of that number (in natural numbers) is not possible.

**28** If m is not a perfect square, then there is no integer n such that square root of m is n.

## FILL IN THE BLANKS

**29.** Find $\sqrt{5625}$ = ———.

**30.** Find the value of $(23)^2$ using column method.

**31.** _____is the value $\sqrt{45} \times \sqrt{20}$.

**32.** A number ending in an odd number of zeros is never a ———.

**33.** If m, n, p are natural numbers such that

$(m^2 + n^2) = p^2$, then (m, n, p) is called ———.

**34** A perfect square number can never have the digits ... at the units place.

## LONG QUESTIONS

**35.** Find the smallest number by which 1800 must be multiplied so that it becomes a perfect square. Also find the square root of the perfect square so obtained.

**36.** Is 2352 a perfect square? if not, find the smallest number by which 2352 must be multiplied so that the product is a perfect square. Find the square root of new number.

**37.** Find the smallest square number divisible by each of the number 6,9 and 15.

**38.** The area of a square plot is 2304 m². Find the side of the square. Also find its perimeter.

**39.** There are 500 children in a school. For a P T drill they have to stand in such a manner that the number of rows is equal to number of columns. How many children this arrangement.

**40.** Find the least number which must be added to each of the following numbers so as to get a perfect square. Also find the square root of the perfect ware so obtained.

    (i)      525
    (ii)    1750
    (iii)   252
    (iv)   1825
    (v)    6412

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**Name of the student_____**

**Class & Sec-VIII__**                    **Topic3 : CUBES & CUBE ROOTS**

**MULTIPLE CHOICE QUESTIONS**

1. Which of the following is correct?

   I. Cube of a negative number is always positive.

   II. Cube of a negative number is always negative.

   III. Cube of a negative number may be positive or negative.

   IV. All of the above

2. If the digit in one's place of a number is 2, then the last digit of its cube will be:

   I. 2

   II. 4

   III. 6

   IV. 8

3. If the digit in one's place of a number is 3, then the last digit of its cube will be:

   I. 3

   II. 6

   III. 7

   IV. 9

4. If the digit in one's place of a number is 6, then the last digit of its cube will be:

   I. 6

   II. 3

   III. 2

   IV. 8

5. The volume of a cubical box is 64 cm³. Which of the following is its side?

   I. 2 cm

   II. 4 cm

   III. 6 cm

   IV. 8 cm

6. Which of the following is a perfect cube?

   I. 10000

   II. 243

   III. 343

   IV. 270000

7. If a number is doubled then which of the following is a correct statement?

   I. Its cube is two times the cube of the given number.

   II. Its cube is three times the cube of the given number.

   III. Its cube is six times the cube of the given number.

   IV. Its cube is eight times the cube of the given number.

8. Which of the following is equal to its own cube?

   I. -1

   II. -2

   III. -3

   IV. -9

9. Which of the following is the cube root of 27000?

   I. 30

   II. 300

   III. 3000

   IV. None of these

10. Which of the following is the cube root of -64/243?

    I. 7/4

    II. -7/4

    III. 4/7

    IV. -4/7

**TRUE / FALSE**

11. When we multiply a number by itself three times, the product so obtained is called the perfect cube of that number.

12. There are only 10 perfect cubes from 1 to 1000.

13. Cubes of even numbers are even and those of odd numbers are odd

14. The cube of a negative number is always negative.

15. If the digit in ones place of a number is 0, 1, 4, 5, 6 or 9, then its cube will end in the same digit.

**FILL IN THE BLANKS**

16. If the digit in ones place of a number is _____, then its cube will end in 8 and vice-versa.

17. If the digit in ones place of a number is 3, then its cube will end in _____ and vice-versa.

18. If the prime factor of a number _____ be made into groups of 3, it is not a perfect cube.

19. The symbol _____ denotes the cube root of a number.

20. 216 is a _____

## SHORT QUESTIONS

21. Find the number whose cube is 27000

22. Find the cube root of 8000

23. Find the cube root of 13824.

24. Find the sides of a cubical box whose volume is 64 cm³.

25. Show that 1728 is a perfect cube.

26. What is the number whose cube is 216?

27. Find the smallest number by which 68600 must be multiplied to get a perfect cube.

28. Find the cube of 4/5.

29. Is the cube of 4913 an odd number? Why?

30. Is the cube of 132651 an even number? Why?

## LONG QUESTIONS

41. What is the smallest number by which 288 must be multiplied so the product is a perfect cube?

42. Which smallest natural number should divide 1188 so that the quotient is a perfect cube?

43. Show that 0.001728 is a cube root of a rational number.

44. Is 292 a perfect cube? If not find the smallest natural number by which it must be multiplied so that the product is a perfect cube.

45. If the surface area of a cube is 486 cm², find its volume.

46. Find the volume of a cube whose surface area is 96 cm².

47. Write all the digits that would appear as the last digits of their respective cubes.

48. Show that if a number is doubled, then it cube becomes eight times the cube of the given number.

49. Find the smallest number by which 243 must be multiplied to obtain a perfect cube.

50. Paritosh makes a cuboid of cardboard of sides 5 cm, 2 cm, 5 cm. How many such cuboids will he need to form a cube?

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MULTIPLE CHOICE QUESTIONS

1)_____ is the distance covered along the boundary forming a closed figure when you go round the figure once.

A. Area
B. Perimeter
C. Volume

2. Perimeter of a rectangle is ————

A. 2 X length + breadth
B. length X breadth
C. 2 X (length + breadth)

3. Perimeter of a square is ————-

A. 2 x length of a side
B. 3 X length of a side
C. 4 X length of a side

4. Perimeter of a regular pentagon with each side measuring 4 cm is ———-

A. 15 cm
B. 20 cm
C. 24 cm

5. The amount of surface enclosed by a closed figure is called ————-

A. Area
B. Perimeter
C. Volume

6. The area of a square plot of side 5m is —————-

A. 20 sq m
B. 25 sq m

C. 50 sq m

7. The area of a rectangle whose length 5 cm and breadth 2 cm is —————–

A. 10 cm
B. 7 cm
C. 14 cm

8. The area of a rectangular piece of cardboard is 45 sq cm and its length is 5 cm. The width of the cardboard is ——————–

A. 9 cm
B. 4 cm
C. 7 cm

9. The perimeter of an equilateral triangle of side 7 cm is ——————

A. 7 cm
B. 14 cm
C. 21 cm

10. The perimeter of a regular pentagon is 100 cm. The length of its each side is ———————–

A. 20 cm
B. 25 cm
C. 10 cm

**Fill in the blanks**

11The area of a rectangular field of length 20m and breadth 15m is ————–-

12. The perimeter of a square of side 25m is ———

13. The area of a triangle whose base is 7 cm and height 4 cm is ————

14. If the area of the parallelogram is 32 sq cm and the base is 4 cm, then height is ————

15. The distance around a circular region is known is its ————

16. The circumference of a circle of diameter 10 cm is ——————

17. The circumference of a circle with radius 14 cm is —————–

18. 1 sq meter is —————–- sq cm.

19. 10000 sq meter is ————–

20. ———— is the part of plane occupied by the closed figure.

**TRUE/FALSE**

21) Area of a triangle = (base × height)

22) Area of a || gm = (base × height)

23) Area of a circle = $2\pi r^2$

24) Circumference of a circle = $2\pi r$

25) Distance around a circle is called circumference.

26) Diameter is the longest chord

**VERY SHORT QUESTIONS**

27) Find the area of the rectangle whose dimensions are:
(i) length = 24.5 m, breadth = 18 m
(ii) length = 12.5 m, breadth = 8 dm

28) Find the area of a rectangular plot, one side of which is 48 m and its diagonal is 50 m.

29) The sides of a rectangular park are in the ratio 4 : 3. If its area is 1728 $m^2$, find the cost of fencing it at Rs 30 per meter.

30) The area of a rectangular field is 3584 $m^2$ and its length is 64 m. A boy runs around the field at the rate of 6 km/h. How long will he take to go 5 times around it?

31) A verandah is 40 m long and 15 m broad. It is to be paved with stones, each measuring 6 dm by 5 dm. Find the number of stones required.

32) Find the cost of carpeting a room 13 m by 9 m with a carpet of width 75 cm at the rate of Rs 105 per meter

33) The cost of carpeting a room 15 m long with a carpet of width 75 cm at Rs 80 per meter is Rs 19200. Find the width of the room.

34) The length and breadth of a rectangular piece of land are in the ratio of 5 : 3. If the total cost of fencing it at Rs 24 per meter is Rs 9600, find its length and breadth.

35)Find the length of the largest pole that can be placed in a hall 10 m long, 10 m wide and 5 m high.

36) Find the area of a square each of whose sides measures 8.5 m.

37) Find the area of the square, the length of whose diagonal is :
(i) 72 cm
(ii) 2.4 m

38) The area of a square is 16200 $m^2$. Find the length of its diagonal.

39) The area of a square field is 1212 hectare. Find the length of its diagonal in meters.

40) The area of a square plot is 6084 $m^2$. Find the length of the wire which can go four times along the boundary of the plot.

**SHORT QUESTIONS**

41) A wire is in the shape of a square of side 10 cm. If the wire is re-bent into a rectangle of length 12 cm, find its breadth. Which figure encloses more area and by how much?

42) A godown is 50 m long, 40 m broad and 10 m high. Find the cost of whitewashing its four walls and ceiling at Rs 20 per square metre.

43) The area of the 4 walls of a room is 168 $m^2$. The breadth and height of the room are 10 m and 4 m respectively. Find the length of the room.

44) The area of the 4 walls of a room is 77 $m^2$. The length and breadth of the room are 7.5 m and 3.5 m respectively. Find the height of the room.

45) The area of four walls of a room is 120 $m^2$. If the length of the room is twice its breadth and the height is 4 m, find the area of the floor.

**LONQ QUESTIONS**

46) A room is 8.5 m long, 6.5 m broad and 3.4 m high. It has two doors, each measuring (1.5 m by 1 m) and two windows, each measuring (2 m by 1 m). Find the cost of painting its four walls at Rs 160 per m$^2$

47) A rectangular grassy plot is 75 m long and 60 m broad. If has path of width 2 m all around it on the inside. Find the area of the path and cost and of constructing it at Rs 125 per m$^2$

48) A rectangular plot of land measures 95 m by 72 m. Inside the plot, a path of uniform width of 3.5 m is to be constructed all around. The rest of the plot is to be laid with grass. Find the total expenses involved in constructing the path at Rs 80 per m$^2$ and laying the grass at Rs 40 per m$^2$.

49). A saree is 5 m long and 1.3 m wide. A border of width 25 cm is printed along its sides. Find the cost of printing the border at Rs 1 per 10 cm$^2$.

50) A rectangular grassy lawn measuring 38 m by 25 m has been surrounded externally by a 2.5-m-wide path. Calculate the cost of gravelling the path at the rate of Rs 120 per m$^2$.

51) A room 9.5 m long and 6 m wide is surrounded by a 1.25-m-long verandah. Calculate cost of cementing the floor of this verandah at Rs 80 per m$^2$.

52) Each side of a square flower bed is 2 m 80 cm long. It is extended by digging a strip 30 cm wide all around it. Find the area of the enlarged flower bed and also the increase in the area of the flower bed.

53) The length and breadth of a park in the ratio 2 : 1 and its perimeter is 240 m. A path 2 m wide runs inside it, along its boundary. Find the cost of paving the path at Rs 80 per m$^2$.

54) A school has a hall which is 22 m long and 15.5 m broad. A carpet is laid inside the hall leaving all around a margin of 75 cm from the walls. Find the area of the carpet and the area of the strip left uncovered. If the width of the carpet is 82 cm, find its cost at the rate of Rs 60 per m.

55) A square lawn is surrounded by a path 2.5 m wide. If the area of the path is 165 m$^2$, find the area of the lawn.
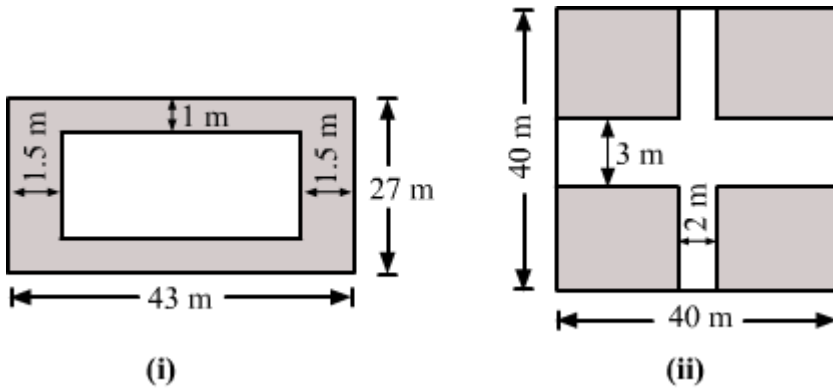
**VERY LONG QUESTIONS**

56) The length and breadth of a rectangular park are in the ratio 5 : 2. A 2.5-m-wide path running all around the outside of the park has an area of 305 m$^2$. Find the dimensions of the park.

57) A rectangular lawn 70 m by 50 m has two roads, each 5 m wide, running through its middle, one parallel to its length and the other parallel to its breadth. Find the cost of constructing the roads at Rs 120 per m$^2$.
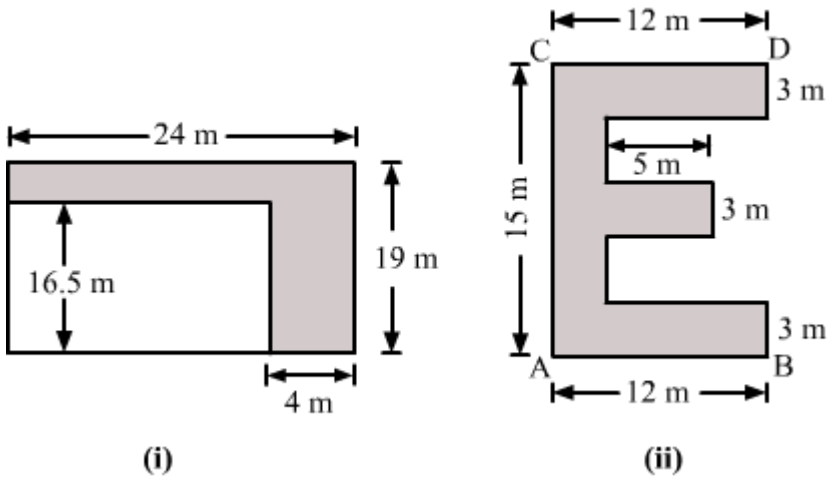
58) A 115-m-long and 64-m-broad lawn has two roads at right angles, one 2 m wide, running parallel to its length, and the other 2.5 m wide, running parallel to its breadth. Find the cost of gravelling the roads at Rs 60 per m

59) A rectangular field is 50 m by 40 m. It has two roads through its centre, running parallel to its sides. The width of the longer and the shorter roads are 2 m and 2.5-m-respectively. Find the area of the roads and the area of the remaining portion of the field.
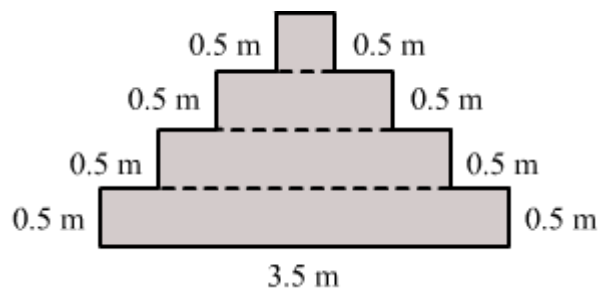
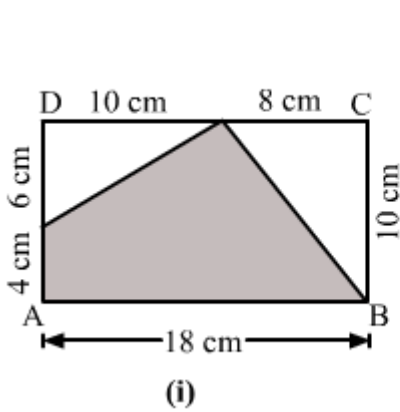60) Calculate the area of the shaded region in each of the figures given below:



(i)  (ii)

61) Calculate the area of the shaded region in each of the figures given below.
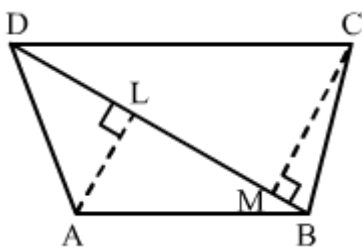Fig. (ii) has uniform width of 3 cm and it is given that AB = CD.



(i)  (ii)

62) n the given figure, all steps are 0.5 m high. Find the area of the shaded region.

63) n the following figures, find the area of the shaded region.



(i)

(ii)

64) Find the area of quadrilateral *ABCD* in which diagonal *BD* = 24 cm. *AL* ⊥ *BD* and *CM* ⊥ *BD* such that *AL* = 5 cm and *CM* = 8 cm.



65) The inner circumference of a circular track is 330 m. The track is 10.5 m wide everywhere. Calculate the cost of putting up a fence along the outer circle at the rate of Rs 20/meter.
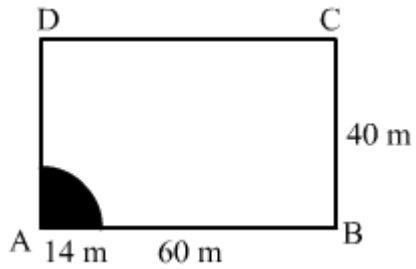
66) One circle has radius of 98 cm and a second concentric circle has a radius of 1 m 26 cm. How much longer is the circumference of the second circle than that of the first?

67) A piece of wire is bent in the shape of an equilateral triangle each of whose sides measures 8.8 cm. This wire is re-bent to form a circular ring. What is the diameter of the ring?
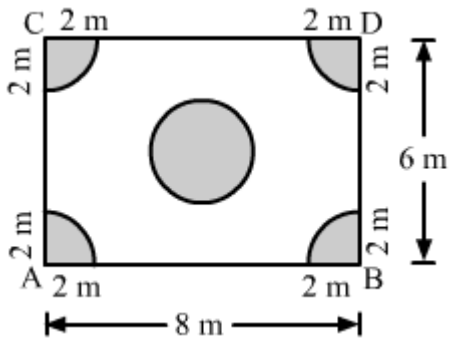
68) A wire in the form of a rectangle 18.7 cm long and 14.3 cm wide is reshaped and bent into the form of a circle. Find the radius of the circle so formed.

69)A wire is looped in the form of a circle of radius 35 cm. If it is rebent in the form of a square, what will be the length of each side of the square?

70)  A horse is tethered to one corner of a rectangular field, 60 m by 40 m, by a rope 14 m long.On how much area can the horse graze?

D _____ C

40 m

A 14 m    60 m    B

71) In the given figure a rectangular plot of land measures 8 m by 6 m. In each of the corners, there is a flower bed in the form of a quadrant of a circle of radius 2 m. Also, there is a flower bed in the area of the remaining plot.



72) The length of a rectangle is 16 cm and the length of its diagonal is 20 cm. The area of the rectangle is_____

73) The lengths of the sides of a triangle are 33 cm, 44 cm and 55 respectively. Find the area of the triangle and hence find the height corresponding to the side measuring 44 cm.

74) One side of a parallelogram is 14 cm and the distance of this side from the opposite side is 6.5 cm. Find the area of the parallelogram.

# SUBJECT – SCIENCE

1  Read chapter -5, 6,7 and 8 from your science book and frame 10 questions each from these chapters. Do not copy the regular questions from anywhere and make them using your own critical and analytical thinking. These questions will be summarised to be done in the class later when school reopens.

2  Explore the following links and learn the methods of drawing science diagrams methodically.

3  Prepare the following models as per roll number. The links are reference only. You all are completely free to use your own creativity for any kind of modification based on the availability of materials around you and your innovative skills.

## For Roll no. 1-5

Cut pieces of fabric from old discarded clothes. Categorise them as knitted or woven fabric. Arrange them in a scape book.  Separate thread from each of these fabrics. In which case, it is easier to separate yarn? Why?

## For Roll no. 6-10

Collects labels from the bottles of jams and jellies. Write down the list of contents printed on the labels.

## For Roll no. 11-15

Prepare a project report on the use of alternative source of energy like solar energy, wind energy and tidal energy.

## For Roll no. 16-20

Make a poster on the need to protect anyone endangered species, not mentioned in your Science book. Collect information on its natural habitat, why the numbers are decreasing, and the efforts and steps being taken for its conservation. Make your poster comprehensive and attractive.

## For Roll no. 21-25

Make a project on "Cloning, its advantages and disadvantages

## For Roll no. 26-30

Find out information about IVF( in vitro fertilisation). How is it helpful for humans? Prepre a report.

# विषय – संस्कृत

- सर्वनाम शब्द अस्मद ( मैं ) , युष्मद ( तुम ) शब्दों के शब्द रूप लिखें |
- सर्वनाम शब्द यत ( जो ) के पुल्लिंग , स्त्रीलिंग , नपुंसकलिंग में शब्द रूप लिखें |
- ऋकारान्त स्त्रीलिंग स्वसृ ( बहन ) और मातृ ( माता ) के शब्द रूप लिखें |
- नकारान्त पुल्लिंग राजन ( राजा ) के शब्द रूप लिखें |
- हस , चल , खेल , खाद , धाव , रक्ष , पूज , कूर्द , पत , भ्रम , लिख , गम ( गच्छ ) , पठ व क्रीड़ धातुओं के लट लकार ( वर्तमानकाल ) , लृट लकार ( भविष्यतकाल ) , लङ्लकार ( भूतकाल ) , लोट लकार ( आज्ञा / आदेश ) , विधिलिङ् लकार ( सम्भावना ) के धातु रूप लिखें | ( सभी धातुओं के अलग- अलग )
- चित्र सहित शरीर के अंगों के नाम लिखें |
- सम्बन्ध वाचक शब्द लिखें | जैसे – बहन , माता , पिता इत्यादि |
- 20-20 पशुओं , पक्षियों , फलों , के नाम लिखें | ( संस्कृत में ) आप गूगल से सहायता ले सकते हैं |
- श्रीमदभगवदगीता के कोई पाँच श्लोक हिन्दी अर्थ सहित लिखें |


# SUBJECT – COMPUTER

1. Explain All Available Applications Like Bhim, PaytmEtc For Online Payment In Detail With Image.

**2.** Make File On 20 Browsers And 20 Search Engine With Image.

3. Make Model On Pan, Lan, Man And Wan Network

4. Make Model To Represent All Network Topology In Detail.

5. Explain About **E** In Detail Like E Commerce, E Business, E Learning Etc With Their Advantage And Disadvantage, And Their Uses In Detail.

6. Make File To Represent Working Of Each Wire And Wireless Media Like Twiasted Pair, Optical Fibre, Coaxial Cable, Bluetooth, Wifi, Infrared, Radiowave, Microwave.

7. Write Difference Between Bluetooth, Wifi , Wimax.

8. What Is Html, Explain Uses And Features Of Html.

9. You Have To Design Web Home Page For ITBP Public School Website.

10. Explain About Cybercrime In Detail, Write Sutailble Steps To Prevent From Cybercrime.