SUBJECT-ENGLISH

1. Write a book review of `The Story of My Life 'by Helen Keller (Review 1-14 chapters).
2. Read the column `Mind Your Language' from the middle of `The Tribune' every Saturday.
3. Search the details of the works of Vikram Seth and find similarity of these works with the Poem- Frog and the Nightingale (Write a paragraph in about 50 words stating the similarities)
4. Select at least 50 words from `The Story of My Life' and Literature Reader; arrange them alphabetically and make a mini dictionary of your own.
5. Write the stories with the following titles:
   - Honesty is its own reward
   - The most fearful night I ever had
   - Every cloud has a silver lining
   - As you sow, so shall you reap
   - Dreamers are achievers
6. Solve the grammar assignments attached along with.

P.S. 1. Question 1 and 3 are to be done in English notebooks.

2. Present your stories as `A book of short stories`.'

3. Prepare mini dictionary separately.

विषय–हिन्दी

1. 'मेरा प्रिय खिलाड़ी' विषय पर 200–250 शब्दों का निबंध लिखें। (हिंदी कॉपी पर करें)

2. आपका मित्र हडसन एंड्री आस्ट्रेलिया में रहता है। उसे इस बार की गर्मी की छुट्टियों के दौरान भारत के पर्वतीय प्रदेशों के भ्रमण हेतु निमंत्रित करते हुए एक पत्र लिखें। (हिंदी कॉपी पर करें)

3. बदलते हुए मौसम को दर्शाते हुए चित्र। फोटो का संग्रह कर एक अलबम तैयार कीजिए। (स्क्रैप बुक पर करें)

4. हिन्दी समाचार पत्र ⁄ पत्रिका में से 10 हिंदी के विज्ञापन काटकर चिपका कर लाएँ।

(स्क्रैप बुक पर करें)

MATHEMATICS

1. Use Euclid's Division Algorithm to find the HCF of 4052 and 12576.

2. Use Euclid's Division Algorithm to find the HCF of 12156 and 37728.

3. Find the HCF of 512 and 1280 with the help of Euclid's Division Algorithm.

4. Find the HCF of 4095 and 378 by Division Algorithm method.

5. Show that every positive even integer is of the form $2q$ and that every positive odd integer is of the form $2q + 1$, where q is some integer.

6. Show that any positive odd integer is of the form $4q + 1$ or $4q + 3$, where q is some integer.

7. Show that any positive even integer is of the form $6q$ or $6q + 2$ or $6q + 4$, where q is some integer.

leaving remainders 5 and 8, respectively.

8. Find the [HCF × LCM] for the numbers 15 and 750.

9. Find the least number which is divisible by all the numbers from 1 to 10 (both inclusive).

10. If two positive integers a and b are written as $a = x^3y^2$ and $b = xy^3$; x, y are prime numbers then find HCF (a, b).

11. Write the prime factorisation of 420.

12. Given that HCF (2520, 6600) = 120, LCM [2520, 6600] = 252 × k, then find the value of k.

13. Find the product of the HCF and LCM of the smallest prime number and the smallest composite number.

14. How many prime factors are there in prime factorisation of 5005 ?

15. The decimal expansion of $\frac{141}{120}$ will terminate after how many places of decimal ?

16. Write $\frac{p}{q}$ form of the real number $0.7\overline{6}$.

17. Show that any positive odd integer is of the form $8q + 1$ or $8q + 3$ or $8q + 5$ or $8q + 7$, where q is some integer.

18. Neeraj and Nidhi start walking along a circular track continuously with a message 'To stop child labour.' Neeraj complete one round in 28 minutes and Nidhi takes 42 minutes to complete one round. If they start in same direction, after how many minutes both meet together at the starting point ?

   If a shopkeeper has a child labour in the canteen of your school, you will :

   (i)   advise the child to leave the job.
   (ii) tell the shopkeeper to leave the child.
   (iii) boycott the shopkeeper.
   (iv) take advice of your class teacher and parent

19. An army contingent of 399 is to march behind an army band of 14 members in a parade. The two groups are to march in the same number of columns. What is the maximum number of columns in which they can march ?

20. A fruit-seller wants to stack oranges and bananas in such a way that each stack has the same number, and they take up the least area of the tray. What is the number that can be placed in each stack for this purpose, if there are 480 oranges and 186 bananas ?

21. There are 48 students in a section A, 40 students in section B and 32 students in section C of class X. In the house examination the students are to be evenly seated in parallel rows for the seating arrangement in the examination. Find the number of students of section A, B and C in each row.

   To control the root cause of copying or unfair means in an examination, the best way is :

   (i)   use of CCTV camera in examination hall
   (ii) strict checking of each student
   (iii) strict punishment
   (iv) value based education

22. If the polynomial $x^4 + 2x^3 + 8x^2 + 12x + 18$ is divided by another polynomial $x^2 + 5$, the remainder comes out to be $px + q$. Find the values of p and q.

23 If α, β are the zeroes of the polynomial $2y^2 + 7y + 5$, write the value of $\alpha + \beta + \alpha\beta$.

24 For what value of k, 3 is a zero of the polynomial $2x^2 + x + k$?

25 If α, β are the zeroes of a polynomial, such that $\alpha + \beta = 6$ and $\alpha\beta = 4$, then write the polynomial.

26 If two zeroes of the polynomial $x^3 - 4x^2 - 3x + 12$ are $\sqrt{3}$ and $-\sqrt{3}$, then find its third zero.

27. Find the zeroes of the following quadratic polynomial and verify the relationship between zeroes and their coefficient :

(i) $3\sqrt{2}x^2 + 13x + 6\sqrt{2}$ (ii) $4\sqrt{5}x^2 - 17x - 3\sqrt{5}$

28 (a) Write the zeroes of $4x^2 - 7$.

(b) Write the zeroes of $100x^2 - 81$.

(c) Write the zeroes of $\sqrt{3}x^2 - 8x + 4\sqrt{3}$.

29 Form a quadratic polynomial whose one of the zeroes is -15 and sum of the zeroes is 42.

30 Find a quadratic polynomial with zeroes $3 + \sqrt{2}$ and $3 - \sqrt{2}$.

31. Divide $(2x^2 + x - 20)$ by $(x + 3)$ and verify division algorithm.

32. Check whether $(x^2 - x + 1)$ is a factor of $(x^3 - 3x^2 + 3x - 2)$.

33. Can $(x - 1)$ be the remainder on division of a polynomial $p(x)$ by $2x + 3$? Justify your answer.

34. Show that the polynomial $x^4 + 4x^2 + 5$ has no zero.

35 Find the zeroes of the polynomial $x^2 + 5x + 6$ and verify the relationship between the zeroes and the coefficients.

36 Verify that $3, -1, -\dfrac{1}{3}$ are the zeroes of the cubic polynomial $p(x) = 3x^3 - 5x^2 - 11x - 3$ and the Verify the relationship between the zeroes & the coefficient

37. Are the following statement 'True' or 'False' Justify your answers.

(a) If the zeroes of a quadratic polynomial $ax^2 + bx + c$ are both positive, then a, b and all have the same sign.

(b) If the graph of a polynomial intersects the x-axis at only one point, it cannot be a quadratic polynomial.

(c) If the graph of a polynomial intersects the x-axis at exactly two points, it need not be a quadractic polynomial

(d) If two of the zeroes of a cubic polynomial are zero, then it does not have linear and constar terms.

(e) If all the zeroes of a cubic polynomial are negative, then all the coefficients and the constant term of the polynomial have the same sign.

(f) If all three zeroes of a cubic polynomial $x^3 + ax^2 - bx + c$ are positive, then at least one a, b and c is non-negative

(g) The only value of k for which the quadratic polynomial $kx^2 + x + k$ has equal zeroes is $\dfrac{1}{2}$.

(h) Find zeroes of the polynomial $49x^2 - 9$.

(i) Write one example of polynomial $p(x), g(x), q(x)$ and $r(x)$, such that $p(x) = g(x) \times q(x) + r(x)$.

(j) Under what condition(s), the polynomial $ax^2 + bx + c$ does not have any real zero.

(k) Find the zeroes of the polynomial $4x^2 - 25$.

(l) What is the maximum number of zeroes of a linear polynomial ?

38. Gloria is walking along the path joining $(-2, 3)$ and $(2, -2)$, while Suresh is walking along the path joining $(0, 5)$ and $(4, 0)$. Represent this situation graphically.

39. Check whether the following pair of linear equations is consistent or inconsistent. If consistent obtain the solution graphically :

(i) $3x + 2y = 5$ (ii) $5x + 2y = 2$
    $2x - 3y = 7$ $2x + 3y = -8$

(iii) $\dfrac{4}{3}x + 2y = 8$ (iv) $x + 3y = 6$
    $2x + 3y = 12$ $2x + 6y = 18$

40. Draw the graphs of the equations :
$$4x - y = 4 \text{ and } 4x + y = 12$$
Determine the vertices of the triangle formed by the lines representing these equations and the x-axis. Shade the triangular region so formed.

41. Draw the graph of :
$6x + 5y = 37,\ 4x + 7y = 21$ and $x - y + 3 = 0$. From the graph read the vertices of triangle obtained.

42. On the graph paper, draw the lines given by following equations :
$$x - y = 0\ ;\ x + y = 0 \text{ and } 2x + 3y = 6$$
Then shade the triangle formed by these lines.

43. Find, graphically, the vertices of the triangle whose sides have the equations : $2y - x = 8,\ 5y - x = 14$ and $2x - y = -1$.

44. For what value of 'a', the system of linear equations:
$$ax + 3y = a - 3$$
$$12x + ay = a \text{ has no solution.}$$

45. For what value of 'k', will the system of equations:
$$x + 2y = 5$$
and $3x + ky + 15 = 0$ has (i) a unique solution   (ii) no solution ?

46. Determine the values of 'a' and 'b' for which the following system of linear equations has infinite solutions :
$$2x - (a - 4)y = 2b + 1$$
$$4x - (a - 1)y = 5b - 1$$

47. Find the value of 'k' so that the following linear equations have no solution :
$$(3k + 1)x + 3y = 2$$
and $(k^2 + 1)x + (k - 2)y - 5 = 0$

48. Solve the following pair of equations by reducing them to a pair of linear equations :

(i) $\dfrac{7}{x} + \dfrac{8}{y} = 2$ (ii) $\dfrac{5}{x+1} - \dfrac{2}{y-1} = \dfrac{1}{2}$
    $\dfrac{1}{x} + \dfrac{6}{y} = 10$ $\dfrac{10}{x+1} + \dfrac{2}{y-1} = \dfrac{5}{2}$

(iii) $\dfrac{6}{x+y} = \dfrac{7}{x-y} + 3$ (iv) $px + qy = p - q$
    $\dfrac{1}{2(x+y)} = \dfrac{1}{3(x-y)}$ $qx - py = p + q$

(v) $\dfrac{x}{a} - \dfrac{y}{b} = 0$
    $ax + by = a^2 + b^2$

49. Ankush cycles for x hours at 20 km/hour and then for y hours at 16 km / hour. If he cycles 68 km altogether in 4 hours, find x and y. Write the importance of cycling in students life.

[Value Based Question]

50. A boat goes 30 km upstream and 44 km downstream in 10 hours. In 13 hours, it can go 40 km upstream and 55 km downstream. Determine the speed of the boat in still water.

51. A boat takes 4 hours to go 300 km downstream. If it takes the same time to go 180 km upstream. Calculate :

(i) the speed of the boat in still water

(ii) the speed of the stream.

52. A person can row 6 km upstream and 20 km downstream in 3 hours. He can row 30 km downstream and 12 km upstream in 5 hours. Find the speed of person in still water and also the speed of the current.

53. A taxi charges in a city consists of a fixed charge together with the charge for the distance covered. For a distance of 12 km, the amount paid is ₹ 111 and for a journey of 30 km, ₹ 255 is paid. What are the fixed charges and the chargers per km ? How much does a person have to pay for travelling a distance of 45 km ?

A taxi driver Raja uses a faulty meter which shows 10% more for a km in his taxi, which value Raja is violating ?   *[Value Based Question]*

54. While cycling along the wind ; a boy can cover a distance of 30 km in 3 hours and for returning back through the same distance he takes 5 hours. Find the speed of wind and the speed of cycling in still air.

55 Places A and B are 100 km apart on a highway. One car starts from A and another from B at the same time. If the cars travel in the same direction at different speeds, they meet in 5 hours. If they travel towards each other, they meet in 1 hour. What are the speeds of the two cars ?

56 Solve the following pair of equations :

$$\frac{10}{x+y} + \frac{2}{x-y} = 4$$

$$\frac{15}{x+y} - \frac{5}{x-y} = -2 .$$

57. Find the value of m for which the pair of linear equations $2x + 3y - 7 = 0$ and $(m - 1)x + (m + 1)y = (3m - 1)$ has infinitely many solutions.

58 Solve the following pair of linear euqations for x and y :

$$\frac{b}{a}x + \frac{a}{b}y = a^2 + b^2$$

$$x + y = 2ab$$

59. The sum of the numerator and the denominator of a fraction is 4 more than twice the numerator. If 3 is added to each of the numerator and denominator, their ratio becomes 2 : 3. Find the fraction.

60. Find the value of k for which the following pair of linear equations have infinitely many solutions :
$2x + 3y = 7; (k - 1)x + (k + 2)y = 3k$

61. The sum of numerator and denominator of a fraction is 3 less than twice the denominator. If each of the numerator and denominator is decreased by 1, the fraction becomes $\frac{1}{2}$. Find the fraction.

62 Solve the following pair of equations :

$$\frac{4}{x} + 3y = 8; \quad \frac{6}{x} - 4y = -5$$

63 Three consecutive positive integers are such that the sum of the square of the first and the product of the other two is 46, find the integers.

64 Represent the following system of linear equations graphically. From the graph, find the points where the lines intersect y-axis :

$$3x + y - 5 = 0, 2x - y - 5 = 0$$

65 Solve the following pair of equations for x and y :

$$\frac{15}{x-y} + \frac{22}{x+y} = 5, -\frac{40}{x-y} + \frac{55}{x+y} = 13,$$

$$x \neq y, x \neq - y$$

66 Solve the following system of equations for x and y :

$$\frac{5}{x-1} + \frac{1}{y-2} = 2, \frac{6}{x-1} - \frac{3}{y-2} = 1$$

67. Solve for x and y :

$$\frac{ax}{b} - \frac{by}{a} = a + b$$

$$ax - by = 2ab .$$

68. The sum of two numbers is 8. Determine the numbers if the sum of their reciprocals is $\frac{8}{15}$.

69. Find the value(s) of k for which the pair of linear equations $kx + 3y = k - 2$ and $12x + ky = k$ has no solution.

70. Solve the following pair of equations :

$$\frac{5}{x-1} + \frac{1}{y-2} = 2$$

$$\frac{6}{x-1} - \frac{3}{y-2} = 1$$

71 100 surnames were randomly picked up from a local telephone directory and the distribution of number of letters of the English alphabet in the surnames was obtained as follows :

No. of Letters	1 - 4	4 - 7	7 - 10	10 - 13	13 - 16	16 - 19
No. of Surnames	6	30	40	16	4	4

Determine the median and mean number of letters in the surnames. Also, find the modal size of surnames.

[CBSE 2008]

72 During the medical check-up of 35 students of a class, their weights were recorded as follows :

Weight (in kg)	38 - 40	40 - 42	42 - 44	44 - 46	46 - 48	48 - 50	50 - 52
No. of Students	3	2	4	5	14	4	3

Draw a less than type and a more than type ogive from the given data. Hence, obtain the median weight from the graph.

[AICBSE 2009]

73 The following table gives the daily income of 50 workers of a factory :

Daily Income (in ₹)	100 - 120	120 - 140	140 - 160	160 - 180	180 - 200
No. of Workers	12	14	8	6	10

Find the mean, mode and median of the above data.

[CBSE (D) 2009]

74 Draw 'less than ogive' and 'more than ogive' for the following distribution and hence find its median.

Classes	20-30	30-40	40-50	50-60	60-70	70-80	80-90
Frequency	10	8	12	24	6	25	15

[AICBSE 2010]

75 Draw 'less than ogive' and 'more than ogive' for the following distribution and hence find its median.

Classes	20-30	30-40	40-50	50-60	60-70	70-80	80-90
Frequency	25	15	10	6	24	12	8

SUBJECT: SCIENCE

1. Prepare a science related poster according to the given roll no-

a. Save earth and save water – 1-10

b. Air pollution and its effects – 11-20

c. Non-conventional sources of energy – 21-30

d. Solar energy and its applications – 31-40

e. LED energy saver - 41 onwards

2. Draw ray diagrams of mirror and lens mentioning the position, size and nature of the image formed on an A   4 sheet.

3. Draw the diagram on an A4 sheet –

a. Digestive system

b. Excretory system

c. Respiratory system

d. Human heart

NOTE – Submit the holiday's homework in a file folder.

SUBJECT: SOCIAL SCIENCE

NOTE: DO THE FOLLOWING IN SCRAP BOOK;

- MONEY AND CREDIT ; VISIT ANY BANK BRANCH AND COLLECT, FILL&PASTE
  a) WITHDRAWL FORM b) DEPOSIT FORM, c) CHEQUE, d) DEMAND DEPOSIT

- GEOGRAPHY/HISTORY MAPS; FILL THE GIVEN MAP ITEMS IN OUTLINE POLITICAL
  MAP OF INDIA.(Note; map items will be sent in the group)
  MIND MAPPING

- READ the following chapters-and prepare MIND MAPS;
  AGRICULTURE, FEDERALISM, DEMOCRACY&DIVERSITY, SECTORS OF INDIAN
  ECONOMY

- **PREPARE POWER POINT PRESENTATIONS GROUPWISE:**

  ROLL NOS 1-10 MINERALS AND ENERGY RESOURCES

  11-20 CONSUMER AWARENESS

  21-30 POLITICAL PARTIES

  31-40 NATIONALISM IN INDIA

  41-50 GLOBALIZATIONS AND THE INDIAN ECONOMY

  (CHOOSE A GROUP LEADER, ALL GROUP STUDENTS MAIL YOUR RESEARCH WORK
  TO TEAM LEADER WHO WILL COMPILE THE PPT)

- FIELD VISIT TO PAU; **Click photographs of crops sown in fields**
  WRITE A REPORT ON ANY 2 CROPS BASED ON GEOGRAPHICAL FEATURES ALONG
  WITH CLICKED PHOTOS

- REVISE ALREADY TAUGHT CHAPTERS DURING HOLIDAYS

SUBJECT: PUNJABI

ਛੁੱਟੀਆਂ ਦਾ ਕੰਮ ਪ੍ਰੋਜੈਕਟ ਫਾਈਲ ਵਿੱਚ ਕੀਤਾ ਜਾਵੇ ।

1. ਕੋਈ ਦੋ ਮਿੰਨੀ ਕਹਾਣੀਆਂ ਅਖ਼ਬਾਰ ਵਿੱਚੋਂ ਕੱਟ ਕੇ ਲਗਾਈਆਂ ਜਾਣ ।

2. ਪੰਜਾਬ ਦੇ ਕੋਈ ਦੋ ਲੋਕ ਗੀਤ ਲਿਖੋ ।

3. ਪੰਜਾਬੀ ਅਖ਼ਬਾਰ ਵਿੱਚੋਂ ਅਲੱਗ-ਅਲੱਗ ਇਸ਼ਤਿਹਾਰ ਕੱਟ ਕੇ ਲਗਾਉ (ਕੋਈ ਪੰਜ ਵੱਖ-ਵੱਖ ਕਿਸਮਾਂ ਦੇ) ।

4. ਸਮਾਜ ਵਿੱਚ ਪ੍ਰਚੱਲਿਤ ਕੋਈ ਪੰਜ ਵਹਿਮਾਂ-ਭਰਮਾਂ ਬਾਰੇ ਆਪਣੇ ਵਿਚਾਰ ਲਿਖੋ ।

5. ਲੁਧਿਆਣੇ ਸ਼ਹਿਰ ਨਾਲ ਸਰਬੰਧਿਤ ਕੋਈ ਪੰਜ ਪੰਜਾਬੀ ਸ਼ਖਸੀਅਤਾਂ (ਕਵੀ, ਨਾਵਲਕਾਰ, ਨਾਟਕਕਾਰ, ਕਹਾਣੀਕਾਰ) ਬਾਰੇ ਇੱਕ-ਇੱਕ ਪੈਰ੍ਹਾ ਲਿਖੋ ।

6. ਮੌਸਮ ਸਰਬੰਧੀ ਪੰਜਾਬੀ ਅਖ਼ਬਾਰ ਵਿੱਚੋਂ ਖ਼ਬਰਾਂ ਕੱਟ ਕੇ ਲਗਾਉ ।

7. ਤਸਵੀਰ ਦੇਖ ਕੇ 50 ਸ਼ਬਦਾਂ ਵਿੱਚ ਆਪਣੇ ਵਿਚਾਰ ਦੱਸੋ ।

SUBJECT: SANSKRIT

(1) अनीयर, तव्यत् अनयोः प्रत्ययोः पंच–पंच उदाहरणानि लेखनीयानि ।

(2) कर्तृवाच्यः कर्मवाच्यश्च एतयोः पंच–पंच उदाहरणानि प्रदतानि पुस्तकतः ।

(3) अव्ययीभावः,तत्पुरूषश्च उभयोः समासयोः दश–दश उदाहरणानि प्रदेयानि ।