KV, BSF, BHIKHIWIND
HOLIDAY HOMEWORK FOR CLASS X,
SESSION- 2025-26

Dear students,
The most awaited vacation is about to begin!! Summer vacation brings easy mornings, relaxing afternoons, and playful evenings. It also brings a good time to plunge into the sea of imagination and creativity. So let's get ready to learn something new every day.

SUBJECT- ENGLISH

1. **Make a Project File on the life and achievements of**

   NELSON MANDELA

   OR

   ANNE FRANK

2.Letter to the Editor

You are Sunidhi Prakash, the Vice Captain of Brilliant Vidyalaya, Barra, Kanpur. You have recently noticed several posters around your school premises conveying a hazardous message:

Lose weight in just a month!
*"A **WONDER DIET** comes to your rescue ...*
A privilege available for only a few!"

Write a letter to the Editor of The DWA, in not more than 120 words, drawing attention towards harm caused by such advertising. Propose the implementation of "Wholesome Lunch Month' in schools as an idea to address such practices, mention the advantages and share suggestions to foster healthy eating routines and develop positive body image among youngsters.

3. Letter for placing order

You are Padam, office in-charge at Vayusena School, Sant colony, Vishakhapatnam. Place an order of stationery items for the school office to Modern store, New Market, Vishakhapatnam.

4.**WORKSHEET**

Exercise : Subject and Verb Agreement

Exercise

Choose the correct form of the verb that agrees with the subject.

1. Annie and her brothers (is, are) at school.

2. Either my mother or my father (is, are) coming to the meeting.

3. The dog or the cats (is, are) outside.

4. Either my shoes or your coat (is, are) always on the floor.

5. George and Tamara (doesn't, don't) want to see that movie.

6. Benito (doesn't, don't) know the answer.

7. One of my sisters (is, are) going on a trip to France.

8. The man with all the birds (live, lives) on my street.

9. The movie, including all the previews, (take, takes) about two hours to watch.

10. The players, as well as the captain, (want, wants) to win.

11. Either answer (is, are) acceptable.

12. Every one of those books (is, are) fiction.

13. Nobody (know, knows) the trouble I've seen.

14. (Is, Are) the news on at five or six?

15. Mathematics (is, are) John's favorite subject, while Civics (is, are) Andrea's favorite subject.

16. Eight dollars (is, are) the price of a movie these days.

17. (Is, Are) the tweezers in this drawer?

18. Your pants (is, are) at the cleaner's.

19. There (was, were) fifteen candies in that bag. Now there (is, are) only one left!

20. The committee (debates, debate) these questions carefully.

21. The committee members (leads, lead) very different lives in private.

22. The Prime Minister, together with his wife, (greets, greet) the press cordially.

23. All of the CDs, even the scratched one, (is, are) in this case.

Comprehension practice

Passage 1

Read the passage and answer the questions

The choices we make on a daily basis—wearing a seatbelt, lifting heavy objects correctly or purposely staying out of any dangerous situation—can either ensure our safety or bring about potentially harmful circumstances.

You and I need to make a decision that we are going to get our lives in order. Exercising self-control, self-discipline and establishing boundaries and borders in our lives are some of the most important things we can do. A life without discipline is one that's filled with carelessness.

We can think it's kind of exciting to live life on the edge. We like the image of "Yeah! That's me! Living on the edge! Woo-hoo!" It's become a popular way to look at life. But if you see, even highways have lines, which provide margins for our safety while we're driving. If we go over one side, we'll go into the ditch. If we cross over the line in the middle, we could get killed. And we like those lines because they help to keep us safe. Sometimes we don't even realize how lines help to keep us safe.

I'm not proud of this, but for the first 20 years of my life at work, I ignored my limits. I felt horrible, physically, most of the time. I used to tell myself, "I know I have limits and that I've reached them, but I'm going to ignore them and see if or how long I can get by with it." I ran to doctors, trying to make myself feel better through pills, vitamins, natural stuff and anything I could get my hands on. Some of the doctors would tell me, "It's just stress." That just made me mad. I thought stress meant you don't like what you do or can't handle life, and I love what I do. But I kept pushing myself, travelling, doing speaking engagements and so on— simply exhausting myself.

Finally, I understood I was living an unsustainable life and needed to make some changes in my outlook and lifestyle.

You and I don't have to be like everyone else or keep up with anyone else. Each of us needs to be exactly the way we are, and we don't have to apologize for it. We're not all alike, and we need to find a comfort zone in which we can enjoy our lives instead of making ourselves sick with an overload of stress and pressure.

On the basis of understanding the passage, answer ANY TEN questions from the twelve that follow. (1×10=10)

Q1) Which of the characteristics are apt about the writer in the following context: "I know I have limits and that I've reached them, but I'm going to ignore them and see if or how long I can get by with it." ?

1. negligent

2. indecisive

3. spontaneous

4. reckless

5. purposeless

6. patient

a) 2 and 5

b) 3 and 6

c) 1 and 4

d) 2 and 3

Q2) The reason why living on the edge has become popular is because of the

a) constant need for something different.

b) population being much younger.

c) exhausting effort to make changes.

d) strong tendency to stay within our limits.

Q3) The phrase "potentially harmful circumstances" refers to circumstances that can

(a) certainly be dangerous.

(b) be fairly dangerous.

(c) be possibly dangerous.

(d) seldom be dangerous.

Q4). Choose the option that correctly states the two meanings of ‘outlook’, as used in the passage.

1. A person’s evaluation of life

2. A person’s experiences in life

3. A person’s point of view towards life

4. A person’s regrets in life

5. A person’s general attitude to life

a) (1) and (4)

b) (2) and (3)

c) (3) and (5)

d) (4) and (5)

Q5) Choose the option that best captures the central idea of the passage from the given quotes.

1. It’s all about quality of life and finding a happy balance between work and friends.

2. To go beyond is as wrong as to fall short.

3. Life is like riding a bicycle. To keep your balance, you must keep moving.

4. Balance is not something you find. It’s something you create.

a) Option (1)

b) Option (2)

c) Option (3)

d) Option (4)

Q6) The author explains the importance of discipline and boundaries in our lives using the example of

a) road accidents.

b) traffic rules.

c) lines on the highway.

d) safe driving.

Q7) The author attempts to _____ the readers through this write-up.

a) rebuke

b) question

c) offer aid to

d) offer advice to

Q8) What is the message conveyed in the last paragraph of the passage?

a) Love what you do.

b) Love yourself to love others.

c) Be the best version of yourself.

d) Be yourself

Q9) Which of the following will be the most appropriate title for the passage?

a) Much too soon

b) Enough is enough

c) How much is too much?

d) Have enough to do?

Q10) The author uses colloquial words such as “yeah” and “Woo-hoo!”. Which of the following is NOT a colloquial word?

a) hooked

b) guy

c) stuff

d) stress

Q11) Select the option that makes the correct use of “unsustainable”, as used in the passage, to fill in the blank space.

a) In the long run, the _____ officials followed emergency procedures.

b) Emergency procedures were _____ by the officials.

c) Officials reported an _____ set of events during the emergency.

d) Officials admit that the emergency system is _____ in the longer run.

Q12) What does the author mean when he says, “to get our lives in order”?

a) To resume our lives.

b) To organize our lives.

c) To rebuild our lives.

d) To control our lives.

Passage 2

Read the passage given below:

Then all the windows of the grey wooden house (Miss Hilton used to live here. She expired last week) were thrown open, a thing I had never seen before.

At the end of the day, a sign was nailed on the mango tree: FOR SALE.

Nobody in the street knew Miss Hilton. While she lived, her front gate was always locked, and no one ever saw her leave or saw anybody go in. So, even if you wanted to, you couldn’t feel sorry and say that you missed Miss Hilton.

When I think of her house, I see just two colours. Grey and green. The green of the mango tree, the grey of the house and the grey of the high iron fence prevented you from getting at the mangoes.

If your cricket ball fell in Miss Hilton’s courtyard, you never got it back. It wasn’t the mango season when Miss Hilton died. But we got back about ten or twelve of our cricket balls.

The house was sold, and we were prepared to dislike the new owners even before they came. I think we were a little worried. Already we had one resident on the street who kept on complaining about us to our parents. He complained that we played cricket on the pavement, and if we were not playing cricket, he complained that we were making too much noise anyway.

One afternoon when I came back from school Pal said, ‘‘Is a man and a woman. She pretty, but he ugly like hell.’’ I didn’t see much. The front gate was open, but the windows were shut again. I heard a dog barking in an angry way.

One thing was settled pretty quickly. Whoever these people were, they would never be the sort of people to complain that we were making noise and disturbing their sleep.

A lot of noise came from the house that night. The radio was going at full volume until midnight, when the radio station closed down. The dog was barking, and the man was shouting. I didn’t hear the woman.

On the basis of your understanding of the above passage, complete the statements that follow: 1×8

(a) Nobody went into Miss Hilton’s house because her front _____.

(b) Her house had only two colours, (i) _____, and (ii) _____.

© The high iron fence did not let the boys get _____.

(c) They never got it back if their _____ fell into her courtyard.

€ The boys were ready to dislike the _____.

(f) One resident of the street always _____.

(g) The new owners of Miss Hilton's house were (i) _____ and (ii) _____.

(h) The man was shouting, the dog was barking, only _____.

(Science)

Class-10

1. Draw a detailed picture of autotrophic nutrition & also paste the picture on the chart paper.

2. Draw and write the nutrition mode and paste the picture on it.

3. What is photosynthesis? Details explanation with a picture.

4. Draw a picture of the alimentary canal and also explain in detail.

5. What is the nervous system? Draw a diagram on chart paper and explain in detail.

Subject: Artificial Intelligence
**PART A – Research & Presentation **

1. **Topic Research (Choose Any One):**
   a) Applications of AI in Daily Life
   b) Role of AI in Healthcare
   c) AI vs Human Intelligence
   d) Impact of AI on Employment
   Instructions:
   * Make a presentation (PPT or Google Slides) with at least 8–10 slides.
   * Include images, facts, and examples.
   * Mention sources of information.
**PART B – Practical & Creativity **
2. **Create a Poster:**
   Design a poster on *“AI for a Better World”* using any digital tool (Canva, MS Paint, etc.) or handmade on A4 sheet.
   Be creative and include a catchy slogan.
**PART C
3. Draw a flowchart for a chatbot that answers basic questions.
BONUS TASK (Optional):
Watch the documentary "**How AI is Changing the World**" on YouTube or Discovery Channel and write 100 words about what you learned.

SUBJECT – SOCIAL SCIENCE

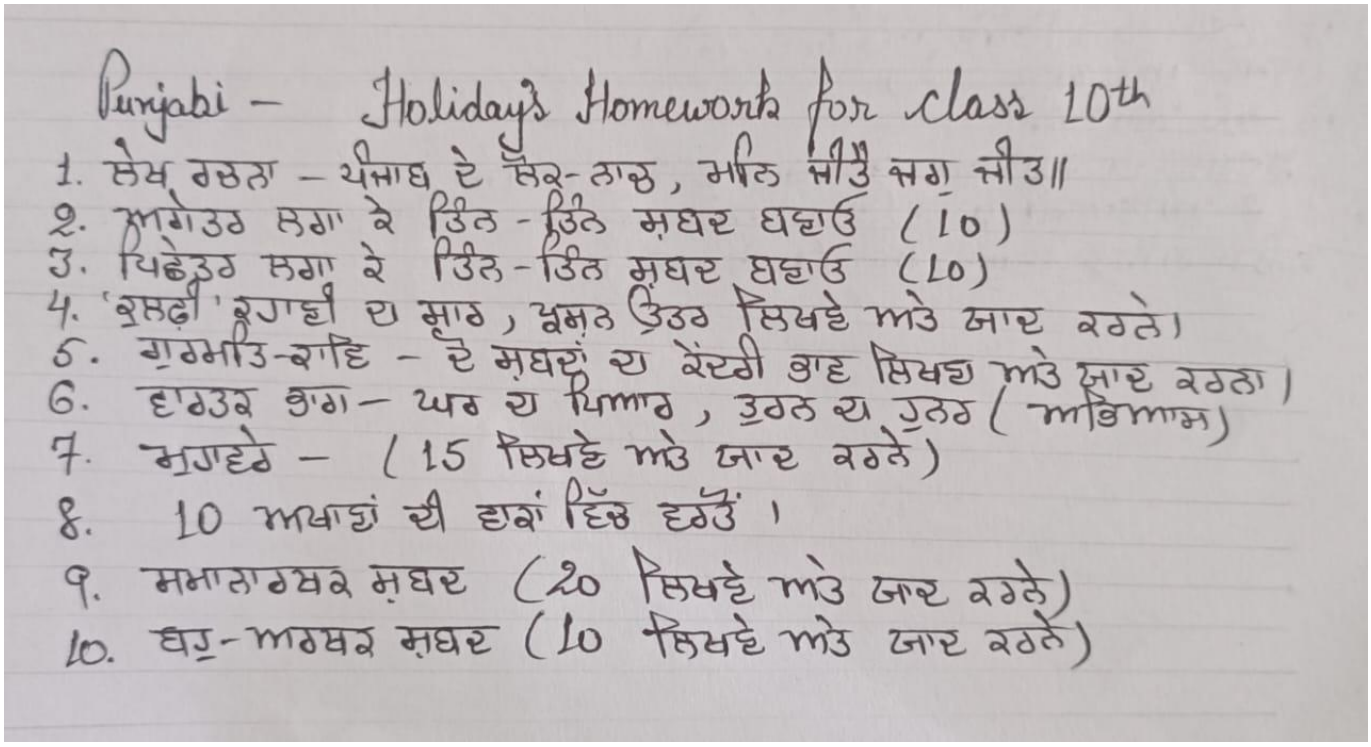
1. Make a Project on one topic given below:-

Consumer Rights
or
Social Issues
or
Sustainabale Development

Do this in a project file,15-20 pages on A4 sheets, handwritten and well decorated.
2. Make and write questions and answers of one mark (one word, one sentence and MCQ) . Make 15 questions from each chapter.
Power sharing (Civics)
Resources and Development (Geography)
Development (Economics)

3. Learn and revise all the completed chapters.
4. Do a map practice of the Geography chapter as per the CBSE Syllabus.

Subject - Punjabi



Subject – Hindi

1)"भारतीय सेना" पर ननबंध लिखिए।
2)"नेताजी सुभाष चंद्र बोस" पर ननबंध लिखिए।
3)एक अनौपचाररक पत्र लिखिए।
4)एक औपचाररक पत्र लिखिए।
5)वाच्य की पररभाषा, वाच्य के भेद (उदाहरण सहहत) लिखें।

6)“पद-पररचय” की पररभाषा, प्रकार व उदाहरण लिखें।
7)क्षितिज (भाग -2) के पाठ 1 एवं पाठ 2 याद कीजजए।
8)”समय की कदर” यां “कंप्युटर का महत्व” पर अनुच्छेद लिखें।
9)अपने चचेरे भाई को एक ईमेल लिखकर बताएं कक इंटरनेट का इस्तेमाल कैसे करना चाहहए।

MCQ WORKSHEET

CLASS X : CHAPTER - 1
REAL NUMBERS

1. If HCF and LCM of two numbers are 4 and 9696, then the product of the two numbers is:
(a) 9696 (b) 24242 (c) 38784 (d) 4848

2. If a and b are positive integers, then HCF (a, b) x LCM (a, b) =
(a) a x b (b) a + b (c) a – b (d) a/b

3. If the HCF of two numbers is 1, then the two numbers are called
(a) composite (b) relatively prime or co-prime
(c) perfect (d) irrational numbers

4. The HCF of 52 and 130 is
(a) 52 (b) 130 (c) 26 (d) 13

5. The HCF of smallest composite number and the smallest prime number is
(a) 0 (b) 1 (c) 2 (d) 3

6. Given that HCF(1152, 1664) = 128 the LCM(1152, 1664) is
(a) 14976 (b) 1664 (c) 1152 (d) none of these

7. The HCF of two numbers is 23 and their LCM is 1449. If one of the numbers is 161, then the other number is
(a) 23 (b) 207 (c) 1449 (d) none of these

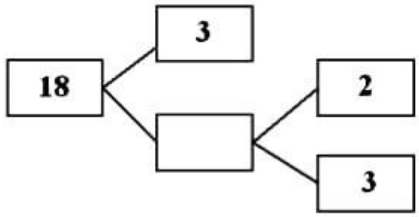
8. The product of L.C.M and H.C.F. of two numbers is equal to
(a) Sum of numbers (b) Difference of numbers
(c) Product of numbers (d) Quotients of numbers

9. L.C.M. of two co-prime numbers is always
(a) product of numbers (b) sum of numbers
(c) difference of numbers (d)none

10. What is the H.C.F. of two consecutive even numbers
(a) 1 (b)2 (c) 4 (d) 8

11. What is the H.C.F. of two consecutive odd numbers
(a) 1 (b) 2 (c) 4 (d) 8

12. The missing number in the following factor tree is
(a) 2 (b) 6 (c) 3 (d) 9



13. If the HCF of 65 and 117 is expressible in the form $65m - 117$, then the value of m is
(a) 4 (b) 2 (c) 1 (d) 3

14. The largest number which divides 70 and 125, leaving remainders 5 and 8, respectively, is
(a) 13 (b) 65 (c) 875 (d) 1750

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

16. If two positive integers p and q can be expressed as $p = ab^2$ and $q = a^3b$; a, b being prime numbers, then LCM (p, q) is
(a) ab (b) a^2b^2 (c) a^3b^2 (d) a^3b^3

17. The product of a non-zero rational and an irrational number is
(a) always irrational (b) always rational
(c) rational or irrational (d) one

18. The least number that is divisible by all the numbers from 1 to 10 (both inclusive) is
(a) 10 (b) 100 (c) 504 (d) 2520

PRACTICE QUESTIONS
CLASS X : CHAPTER - 1
REAL NUMBERS

1. Show that 12^n cannot end with the digit 0 or 5 for any natural number n.

2. In a morning walk, three persons step off together and their steps measure 40 cm, 42 cm and 45 cm, respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps?

3. If LCM (480, 672) = 3360, find HCF (480,672).

4. The numbers 525 and 3000 are both divisible only by 3, 5, 15, 25 and 75. What is HCF (525, 3000)? Justify your answer.

5. Explain why $3 \times 5 \times 7 + 7$ is a composite number.

6. Can two numbers have 18 as their HCF and 380 as their LCM? Give reasons.

7. Find the largest number which divides 245 and 1029 leaving remainder 5 in each case.

8. Find the largest number which divides 2053 and 967 and leaves a remainder of 5 and 7 respectively.

9. Two tankers contain 850 litres and 680 litres of kerosene oil respectively. Find the maximum capacity of a container which can measure the kerosene oil of both the tankers when used an exact number of times.

10. In a morning walk, three persons step off together. Their steps measure 80 cm, 85 cm and 90 cm respectively. What is the minimum distance each should walk so that all can cover the same distance in complete steps?

11. Find the least number which when divided by 12, 16, 24 and 36 leaves a remainder 7 in each case.

12. The length, breadth and height of a room are 825 cm, 675 cm and 450 cm respectively. Find the longest tape which can measure the three dimensions of the room exactly.

13. Determine the smallest 3-digit number which is exactly divisible by 6, 8 and 12.

14. Determine the greatest 3-digit number exactly divisible by 8, 10 and 12.

15. The traffic lights at three different road crossings change after every 48 seconds, 72 seconds and 108 seconds respectively. If they change simultaneously at 7 a.m., at what time will they change simultaneously again?

16. Three tankers contain 403 litres, 434 litres and 465 litres of diesel respectively. Find the maximum capacity of a container that can measure the diesel of the three containers exact number of times.

17. Find the least number which when divided by 6, 15 and 18 leave remainder 5 in each case.

18. Find the smallest 4-digit number which is divisible by 18, 24 and 32.

19. Renu purchases two bags of fertiliser of weights 75 kg and 69 kg. Find the maximum value of weight which can measure the weight of the fertiliser exact number of times.

20. In a seminar, the number, the number of participants in Hindi, English and Mathematics are 60, 84 and 108, respectively. Find the minimum number of rooms required if in each room the same number of participants are to be seated and all of them being in the same subject.

21. 144 cartons of Coke cans and 90 cartons of Pepsi cans are to be stacked in a canteen. If each stack is of the same height and is to contain cartons of the same drink, what would be the greatest number of cartons each stack would have?

22. A merchant has 120 litres of oil of one kind, 180 litres of another kind and 240 litres of third kind. He wants to sell the oil by filling the three kinds of oil in tins of equal capacity. What would be the greatest capacity of such a tin?

23. In a morning walk, three persons step off together and their steps measure 80 cm, 85 cm and 90 cm, respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps?

24. A circular field has a circumference of 360 km. Three cyclists start together and can cycle 48, 60 and 72 km a day, round the field. When will they meet again?

25. Find the smallest number which leaves remainders 8 and 12 when divided by 28 and 32 respectively.

26. Find the smallest number which when increased by 17 is exactly divisible by 520 and 468.

27. Find the greatest numbers that will divide 445, 572 and 699 leaving remainders 4, 5 and 6 respectively.

28. Find the greatest number which divides 2011 and 2423 leaving remainders 9 and 5 respectively

29. Find the greatest number which divides 615 and 963 leaving remainder 6 in each case.

30. Find the greatest number which divides 285 and 1249 leaving remainders 9 and 7 respectively.

31. Find the largest possible positive integer that will divide 398, 436, and 542 leaving remainder 7, 11, 15 respectively.

32. Given that HCF (306, 657) = 9, find the LCM(306, 657).

33. Why the number 4^n, where n is a natural number, cannot end with 0?

34. Why is 5 x 7 x 11 + 7 is a composite number?

35. Explain why 7 x 11 + 13 + 13 and 7 x 6 x 5 x 4 x 3 x 2 x 1 + 5 are composite numbers.

36. In a school there are two sections – section A and section B of class X. There are 32 students in section A and 36 students in section B. Determine the minimum number of books required for their class library so that they can be distributed equally among students of section A or section B.

37. Determine the number nearest 110000 but greater than 100000 which is exactly divisible by each of 8, 15 and 21.

38. Three sets of English, Hindi and Mathematics books have to be stacked in such a way that all the books are stored topic wise and the height of each stack is the same. The number of English books is 96, the number of Hindi books is 240 and the number of Mathematics books is 336. Assuming that the books are of the same thickness, determine the number of stacks of English, Hindi and Mathematics books.

39. Find the HCF and LCM of 144, 180 and 192 by using prime factorization method.

40. Find the HCF and LCM of 17, 23 and 37 by using prime factorization method.

41. Prove that $5-2\sqrt{3}$ is an irrational number.

42. Prove that $\frac{2\sqrt{3}}{5}$ is an irrational number.

43. Prove that $7+3\sqrt{2}$ is an irrational number.

44. Prove that $2+3\sqrt{5}$ is an irrational number.

45. Prove that $\sqrt{2}+\sqrt{3}$ is an irrational number.

46. Prove that $\sqrt{3}+\sqrt{5}$ is an irrational number.

47. Prove that $7-2\sqrt{3}$ is an irrational number.

48. Prove that $3-\sqrt{5}$ is an irrational number.

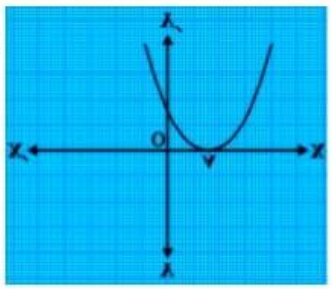
49. Prove that $\sqrt{2}$ is an irrational number.

50. Prove that $7-\sqrt{5}$ is an irrational number

MCQ WORKSHEET
CLASS X : CHAPTER - 2
POLYNOMIALS

1. The value of k for which (–4) is a zero of the polynomial $x^2 - x - (2k + 2)$ is
(a) 3 (b) 9 (c) 6 (d) –1

2. If the zeroes of the quadratic polynomial ax2 + bx + c, $c \neq 0$ are equal, then
(a) c and a have opposite sign (b) c and b have opposite sign
(c) c and a have the same sign (d) c and b have the same sign



3. The number of zeroes of the polynomial from the graph is
(a) 0 (b) 1 (c) 2 (d) 3

4. If one of the zero of the quadratic polynomial $x^2 + 3x + k$ is 2, then the value of k is
(a) 10 (b) –10 (c) 5 (d) –5

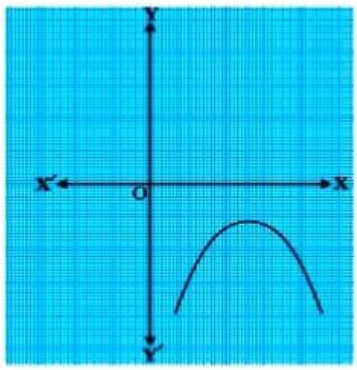
5. A quadratic polynomial whose zeroes are –3 and 4 is
(a) $x^2 - x + 12$ (b) $x^2 + x + 12$ (c) $2x^2 + 2x - 24$. (d) none of the above.

6. The relationship between the zeroes and coefficients of the quadratic polynomial $ax^2 + bx + c$ is (a) $\alpha + \beta = \frac{c}{a}$ (b) $\alpha + \beta = \frac{-b}{a}$ (c) $\alpha + \beta = \frac{-c}{a}$ (d) $\alpha + \beta = \frac{b}{a}$

7. The zeroes of the polynomial $x^2 + 7x + 10$ are
(a) 2 and 5 (b) –2 and 5 (c) –2 and –5 (d) 2 and –5

8. The relationship between the zeroes and coefficients of the quadratic polynomial $ax^2 + bx + c$ is (a) $\alpha.\beta = \frac{c}{a}$ (b) $\alpha.\beta = \frac{-b}{a}$ (c) $\alpha.\beta = \frac{-c}{a}$ (d) $\alpha.\beta = \frac{b}{a}$

9. The zeroes of the polynomial $x^2 - 3$ are
(a) 2 and 5 (b) –2 and 5 (c) –2 and –5 (d) none of the above



10. The number of zeroes of the polynomial from the graph is
(a) 0 (b) 1 (c) 2 (d) 3

11. A quadratic polynomial whose sum and product of zeroes are –3 and 2 is
(a) $x^2 - 3x + 2$ (b) $x^2 + 3x + 2$ (c) $x^2 + 2x - 3$. (d) $x^2 + 2x + 3$.

12. The zeroes of the quadratic polynomial $x^2 + kx + k$, $k \neq 0$,
(a) cannot both be positive (b) cannot both be negative
(c) are always unequal (d) are always equal

13. If α, β are the zeroes of the polynomials $f(x) = x^2 + x + 1$, then $\frac{1}{\alpha} + \frac{1}{\beta}$
(a) 0 (b) 1 (c) –1 (d) none of these

14. If one of the zero of the polynomial $f(x) = (k^2 + 4)x^2 + 13x + 4k$ is reciprocal of the other then k =

(a) 2 (b) 1 (c) –1 (d) – 2

15. If α, β are the zeroes of the polynomials $f(x) = 4x^2 + 3x + 7$, then $\frac{1}{\alpha}+\frac{1}{\beta}$

(a) $\frac{7}{3}$ (b) $\frac{-7}{3}$ (c) $\frac{3}{7}$ (d) $\frac{-3}{7}$

16. If the sum of the zeroes of the polynomial $f(x) = 2x^3 - 3kx^2 + 4x - 5$ is 6, then value of k is

(a) 2 (b) 4 (c) –2 (d) – 4

17. The zeroes of a polynomial $p(x)$ are precisely the x-coordinates of the points, where the graph of $y = p(x)$ intersects the

(a) x – axis (b) y – axis (c) origin (d) none of the above

18. If α, β are the zeroes of the polynomials $f(x) = x^2 - p(x + 1) - c$, then $(\alpha + 1)(\beta + 1)$ =

(a) c – 1 (b) 1 – c (c) c (d) 1 + c

19. If α, β are the zeroes of the polynomials $f(x) = x^2 + 5x + 8$, then $\alpha + \beta$

(a) 5 (b) –5 (c) 8 (d) none of these

20. If α, β are the zeroes of the polynomials $f(x) = x^2 + 5x + 8$, then $\alpha.\beta$

(a) 0 (b) 1 (c) –1 (d) none of these

21. A quadratic polynomial whose sum and product of zeroes are –3 and 4 is

(a) $x^2 - 3x + 12$ (b) $x^2 + 3x + 12$ (c) $2x^2 + x - 24$. (d) none of the above.

22. A quadratic polynomial whose zeroes are $\frac{3}{5}$ and $\frac{-1}{2}$ is

(a) $10x^2 - x - 3$ (b) $10x^2 + x - 3$ (c) $10x^2 - x + 3$ (d) none of the above.

23. A quadratic polynomial whose sum and product of zeroes are 0 and 5 is

(a) $x^2 - 5$ (b) $x^2 + 5$ (c) $x^2 + x - 5$. (d) none of the above.

24. A quadratic polynomial whose zeroes are 1 and –3 is

(a) $x^2 - 2x - 3$ (b) $x^2 + 2x - 3$ (c) $x^2 - 2x + 3$ (d) none of the above.

25. A quadratic polynomial whose sum and product of zeroes are –5 and 6 is

(a) $x^2 - 5x - 6$ (b) $x^2 + 5x - 6$ (c) $x^2 + 5x + 6$ (d) none of the above.

PRACTICE QUESTIONS

CLASS X : CHAPTER - 2

POLYNOMIALS

1. Find the quadratic polynomial whose zeroes are $2 + \sqrt{3}$ and $2 - \sqrt{3}$.

2. Find the quadratic polynomial whose zeroes are $\frac{3-\sqrt{3}}{5}$ and $\frac{3+\sqrt{3}}{5}$.

3. Find a quadratic polynomial whose sum and product of zeroes are $\sqrt{2}$ and 3 respectively.

4. If m and n are zeroes of the polynomial $3x^2 + 11x - 4$, find the value of $\frac{m}{n}+\frac{n}{m}$

5. If a and b are zeroes of the polynomial $x^2 - x - 6$, then find a quadratic polynomial whose zeroes are $(3a + 2b)$ and $(2a + 3b)$.

6. If p and q are zeroes of the polynomial $t^2 - 4t + 3$, show that $\frac{1}{p} + \frac{1}{q} - 2pq + \frac{14}{3} = 0$.

7. If 2 and -3 are the zeroes of the polynomial $x^2 + (a + 1)x + b$, then find the value of a and b.

8. If the product of zeroes of the polynomial $ax^2 - 6x - 6$ is 4, find the value of 'a'.

9. If one zero of the polynomial $(a^2 + 9)x^2 + 13x + 6a$ is reciprocal of the other. Find the value of a.

10. Write a quadratic polynomial, sum of whose zeroes is $2\sqrt{3}$ and their product is 2.

11. Find a polynomial whose zeroes are 2 and -3.

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

13. Find the sum and product of zeroes of $p(x) = 2(x^2 - 3) + x$.

14. Find a quadratic polynomial, the sum of whose zeroes is 4 and one zero is 5.

15. Find the zeroes of the polynomial $p(x) = \sqrt{2}x^2 - 3x - 2\sqrt{2}$.

16. If α and β are the zeroes of $2x^2 + 5(x - 2)$, then find the product of α and β.

17. Find a quadratic polynomial, the sum and product of whose zeroes are 5 and 3 respectively.

18. Find the zeroes of the quadratic polynomial $f(x) = abx^2 + (b^2 - ac)x - bc$ and verify the relationship between the zeroes and its coefficients.

19. Find the zeroes of the following polynomials by factorisation method and verify the relations between the zeroes and the coefficients of the polynomials:

(i) $4x^2 - 3x - 1$

(ii) $3x^2 + 4x - 4$

(iii) $5t^2 + 12t + 7$

(iv) $t^3 - 2t^2 - 15t$

(v) $2x^2 + \frac{7}{2}x + \frac{3}{4}$

(vi) $4x^2 + 5\sqrt{2}\,x - 3$

(vii) $2s^2 - (1 + 2\sqrt{2})s + \sqrt{2}$

(viii) $v^2 + 4\sqrt{3}\,v - 15$

(ix) $y^2 + \frac{3}{2}\sqrt{5}\,y - 5$

(x) $7y^2 - \frac{11}{3}y - \frac{2}{3}$

20. Find the zeroes of the polynomial $x^2 + \frac{1}{6}x - 2$, and verify the relation between the coefficients and the zeroes of the polynomial.

21. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - 2x + 3$, then find a quadratic polynomial whose zeroes are $\alpha + 2$ and $\beta + 2$

22. If α and β are the zeroes of the quadratic polynomial $f(x) = 3x^2 - 4x + 1$, then find a quadratic polynomial whose zeroes are $\frac{\alpha^2}{\beta}$ and $\frac{\beta^2}{\alpha}$.

23. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - 2x + 3$, then find a quadratic polynomial whose zeroes are $\frac{\alpha - 1}{\alpha + 1}$ and $\frac{\beta - 1}{\beta + 1}$.

24. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - p(x + 1) - c$, show that $(\alpha + 1)(\beta + 1) = 1 - c$.

25. If α and β are the zeroes of the quadratic polynomial such that $\alpha + \beta = 24$ and $\alpha - \beta = 8$, find a quadratic polynomial having α and β as its zeroes.

ART & CRAFT HOLIDAY HOMEWORK

Read the instructions carefully :

- Preferably Students will use A3 Sheet for PAINTINGS
- Medium :Student can use any colour medium for paintings.

1) 02 - FILE COVER DESIGNING

Title: "Art: My Voice, My Vision"

*** How to Design the File Cover Creatively:**

a) Draw a border using sketch pens, colors, or decorative tape.

b) Add a simple drawing or small artwork that matches your homework theme (e.g., nature, culture, peace, creativity).

c) Use neat handwriting and center the text properly.

d) Add small patterns or motifs like leaves, mandala art, geometric shapes, or folk designs.

e) Do not overcrowd the cover with too many elements – keep it clean and artistic.

f) You can also add a short title or quote related to art like:

"Art Speaks Where Words Are Unable to Explain." etc

2) PAINTING:Students will do any 5 Drawing/paintings from the following topic:

S.No	Topics
1	I AM FIT
2	WOMEN ENPOWERMENT
3	FOLK ART (MADHUBANI/ BHIL ART/ GOND ART/ WARLI ART etc.)
4	ENVIRONMENT & CLIMATE CHANGE
5	INTERNATIONAL YOGA DAY
6	STILL LIFE (OBJECT DRAWING BY PENCIL SHADING)
7	ILLUSTRATE YOUR FAVORITE INDIAN FESTIVAL.
8	DRAW A 4-FRAME STORY WITH DIALOGUE BOXES.
9	DRAW ANY INDIAN MONUMENT WITH A DECORATIVE BORDER.
10	CREATE A DRAWING INSPIRED BY EGYPTIAN OR JAPANESE ART.

3) POSTER DESIGN: Make any 3 Poster from the following topics:

General & Environmental Topics	Health & Hygiene	Social Awareness	Digital & Modern Themes
1. Youth for change 2. Save Earth, Save Life 3. Say No to Plastic 4. Beat the Heat – Save Water 5. Clean India, Green India 6. Go Green – Plant More Trees 7. Reduce, Reuse, Recycle 8. Save Animals, Save Nature 9. Stop Pollution – Start Solution 10. Our Planet, Our Responsibility 11. Rainwater Harvesting	1. Healthy Mind, Healthy Body 2. Say No to Junk Food 3. Personal Hygiene is My Responsibility 4. Fight Germs – Wash Hands 5. Yoga for Youth	1. Education for All 2. Stop Child Labour 3. Say No to Bullying 4. Respect Your Elders 5. Equality for All 6. Unity in Diversity 7. Girl Power – Save the Girl Child 8. Road Safety – Your Life Matters	1. Cyber Safety for Students 2. Power of Social Media 3. Digital India – Smart India 4. AI and the Future of Learning

4) CRAFT WORK :

S.No	Topic
1	**MAKE 5- 3D PAPER FLOWER (SIZE 8×8INCH) (ANY COLOUR)**