



SD DAV PUBLIC SCHOOL, JAMTARA

Summer Vacation Assignment (2024-25)

Class:- 10

Hindi

1. पठित पाठों के प्रश्न उत्तर याद करें।
2. (क) 'बचपन के दिन अनमोल होते हैं।' तर्क सहित स्पष्ट करें।
(ख) गोपियों की भक्ति भावना को स्पष्ट करें।
(ग) 'वैश्विक उष्मण : कारण, प्रभाव और निदान' पर एक अनुच्छेद लिखें।
(घ) गर्मी से बचाव के उपाय बताते हुए अपने छोटे भाई को एक पत्र लिखें।
(ङ) नेताजी सुभाष चंद्र बोस के व्यक्तित्व एवं कृतित्व पर एक आलेख तैयार करें।

परियोजना कार्य

बीरबल, तेनालीराम और गोपाल भाँड़ के तीन-तीन किस्से लिखकर उपयुक्त चित्रांकन करें। (चैनल फाइल में)

English

Reading Assignment: Read a novel or a collection of short stories from a list provided by your teacher. Write a summary of each chapter/story and your thoughts on the overall theme and characters.

Creative Writing: Choose a topic from current affairs or personal experiences and write an essay or short story. Focus on proper grammar, vocabulary, and organization.

Vocabulary Enhancement: Learn 10 new words each week from a dictionary or online resource. Create flashcards and use them in sentences to reinforce your understanding.

Grammar Practice: Complete exercises on grammar topics such as tenses, punctuation, and sentence structure. Review any areas of difficulty and seek clarification from your teacher if needed.

Literary Analysis: Select a poem or excerpt from a play and analyze its themes, imagery, and literary devices. Write a critical analysis highlighting the author's intentions and your interpretation.

Research Project: Choose a topic related to literature, language, or culture and conduct research using reliable sources. Present your findings in the form of a report, presentation, or creative project.

Reading Comprehension: Practice reading passages and answering comprehension questions to improve your reading skills. Pay attention to main ideas, supporting details, and inference.

Book Review: Write a review of a book you recently read, focusing on its strengths, weaknesses, and overall impact. Recommend it to your classmates and justify your recommendation.

Poetry Writing: Write your own poem on a topic of your choice. Experiment with different forms and techniques, such as rhyme, meter, and imagery.

Peer Feedback: Exchange homework assignments with a classmate and provide constructive feedback on each other's work. Focus on areas for improvement and offer suggestions for revision.

Remember to manage your time effectively and set aside dedicated study periods to complete each assignment thoroughly. Enjoy your summer vacation and happy learning!

S.S.T.

1. Explain the contribution of Otto von Bismarck in German unification.
2. Write a short note on Giuseppe Mazzini.
3. Describe the reforms introduced by Napoleon in the territories ruled by him.
4. What was Romantic imagination?
5. Explain the steps taken by the French revolutionaries to create a sense of collective identity amongst the French people?
6. What did Liberal Nationalism stand for?
7. What is meant by the system of checks and balances?
8. Define the term Ethnic.
9. What is vertical division of power?
10. Define Majoritarianism.
11. Why power sharing is desirable in modern Democracies?
12. What is meant by community government of Belgium?
13. What is meant by Resources?
14. Describe the classification of resources.
15. Describe two types of renewable resources.
16. What are the two characteristics of Renewable resources?
17. What is meant by sustainable development?
18. Define the term National Income.
19. What is GDP?
20. What is the main criterion used by the World Bank in classifying different countries?
21. What is Sustainable Development?
22. Define Development.

Science

All the questions are compulsory.

1. Write complete balanced equations for the following reactions :

(a) Calcium (solid) + Water (liquid)

(b) Calcium hydroxide (solution) + Hydrogen (gas)

(c) Sulphur dioxide (gas) + Oxygen (gas)

(d) Sulphur trioxide (gas)

2. Why is respiration considered an exothermic process?

3. What happens chemically when quicklime is added to water filled in a bucket?

4. Why is photosynthesis considered an endothermic reaction?

5. What is a chemical equation? Explain with help of example.

6. Name the product formed on strongly heating ferrous sulphate crystals. What type of reaction occurs in this change?

7. Define combination reaction with help of example.

8. In reaction $\text{CuO} + \text{H}_2 \longrightarrow \text{Cu} + \text{H}_2\text{O}$

Name the substance oxidised, reduced, oxidising agent and reducing agent.

9. Explain why food products containing fat and oil are packaged in nitrogen?

10. State two important uses of decomposition reaction.

11. What substances are contained in gastric juice? What are their functions?

12. Match terms in column A and column B

Column A

Column B

1. Trypsin

a. Liver

2. Amylase

b. gastric glands

3. Bile

c. pancreas

4. Pepsin

d. saliva

13. How does amoeba engulf the food particle?

14. Define nutrient. Name four important nutrients in our food.

15. What criteria can be used to decide whether something is alive?

Project work : Draw a well-labelled diagram of the human digestive system in A4 page

Give three examples of single displacement reaction and notify the colour change using a proper diagram in A4 sheet.

Artificial Intelligence

Q1) The Indian Government banned a few apps stating – “servers in the hostile nation are receiving and using the acquired data improperly”. Which terminology suits best for this action?

- (a) AI Ethics (b) Data Privacy (c) AI Bias (d) AI Access

Q2) Read the examples given below

- i. Using Chat GPT to write an email
- ii. Face unlock technology of mobile phones using camera
- iii. Turning off lights with IoT device
- iv. Hand sanitizer dispenser having sensor

Choose the options that are not AI

- (a) i and ii (b) iii and i (c) iii and iv (d) i, iii and iv

Q3) _____ refer to the type of features that we want to collect

Q4) _____ is the process of finding instances of real-world objects in images or videos.

- (a) Instance segmentation (b) Object detection (c) Classification (d) Image segmentation

Q5) All of us use smart phones. When we install a new app, it asks us for several permissions to access our phone’s data in different ways. Why do apps collect such data?

Q6) Your grandmother watches you use AI applications. She wants to understand more about it. Help her understand the term artificial intelligence by giving the right definition and explain to her with an example how machines become artificially intelligent.

Maths

1. If the HCF of 65 and 117 is expressible in the form $65m-117$, then find value of m.

- a. 0 b. 2 c. 13 d. 130

2. What is the greatest possible speed at which a man can walk 52 km and 91 km in an exact number of minutes?

- a. 17 m/min b. 7 m/min c. 13 m/min d. 26 m/min

3. If one zero of $3x^2+8x+k$ be the reciprocal of the other then $k=?$

- a. 3 b. -3 c. $\frac{1}{3}$ d. $-\frac{1}{3}$

4. Let a and b be two positive integers such that $a = p^3q^4$ and $b = p^2q^3$, where p and q are prime numbers. If $HCF(a,b) = p^m q^n$ and $LCM(a,b) = p^r q^s$, then $(m+n)(r+s)=?$

- a. 15 b. 30 c. 35 d. 72

5. The pair of equations $x+2y+5=0$ and $-3x-6y+1=0$ has

- a. a unique solution b. exactly two solutions c. infinitely many solutions d. no solution

6 If product of two numbers is 5780 and their HCF is 17, then their LCM is 340.

Statement R(Reason): HCF is always a factor of LCM.

a. Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion(A).

b. Both assertion (A) and reason(R) are true and reason (R) is not the correct explanation of assertion(A).

c. Assertion (A) is true but reason (R) is false.

d. Assertion (A) is false but reason (R) is true.

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

8. If one zero of the quadratic polynomial $f(x)=4x^2-8kx-9$ is negative of the other, find the value of k.

9. Check whether 6^n can end with the digit 0 for any natural number n.

10. Find the quadratic polynomial sum of whose zeroes is 8 and their product is 12. Hence, find the zeroes of polynomial.

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

12. Prove that $\sqrt{3}$ is an irrational number.

13. Find the zeroes of the polynomials $4x^2 + 5\sqrt{2}x - 3$ by factorisation method and verify the relationship between the zeroes and coefficients of the polynomials.

14. Solve the following system of linear equation graphically $4x-5y-20=0$ and $3x+5y-15=0$

Determine the vertices of the triangle formed by the lines representing the above equations and the y-axis.

15. Find the solution of the pair of equations

$$\frac{x}{10} + \frac{y}{5} - 1 = 0 \quad \text{and} \quad \frac{x}{8} + \frac{y}{6} = 15.$$

Hence, find λ , if $y = \lambda x + 5$.

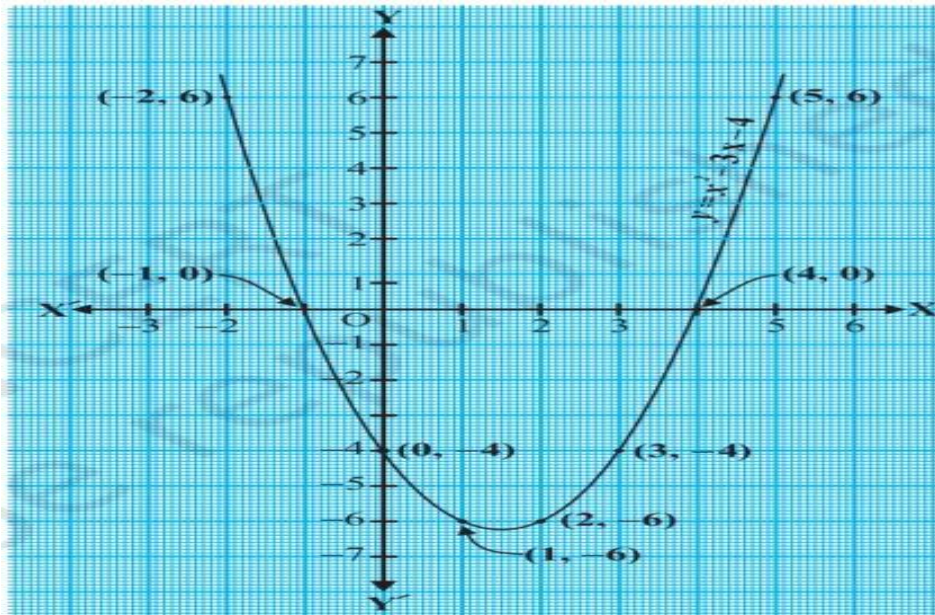
16. A seminar is being conducted by an Educational Organisation, where the participants will be educators of different subjects. The number of participants in Hindi, English and Mathematics are 60, 84 and 108, respectively.



(i) In each room the same number of participants are to be seated and all of them being in the same subject, hence maximum number participants that can accommodated in each room are....

(ii) What is the minimum number of rooms required during the event?

17. Due to heavy storm an electric wire got bent as shown in the figure. It followed a mathematical shape



Answer the following questions below

(i) Name of shape in which the wire bent.

(ii) The zeroes of the polynomial are

Or

If the graph is either completely above X-axis or completely below X-axis, then find the numbers of zeroes

(iii) What is the value of the polynomial, if $x = -2$

18. A test consists of 'True' or 'False' questions. One mark is awarded for every correct answer while $\frac{1}{4}$ mark is deducted for every wrong answer. A student knew answers to some of the questions. Rest of the questions he attempted by guessing. He answered 120 questions and got 90 marks.

Type of question	Marks given for correct answer	Marks deducted for wrong answer
True/False	1	0.25

Consider the number of questions whose answer known to the student be x and questions attempted by guessing be y

(i) Represent both the situations algebraically

(a) $x + y = 120$, $x - 4y = 360$ (b) $x + y = 120$, $4x - y = 360$

(c) $x - y = 120$, $x + 4y = 500$ (d) $x + y = 120$, $4x + 4y = 360$

(ii) If answer to all questions he attempted by guessing were wrong, then how many questions did he answer correctly?

(a) 69 (b) 96 (c) 66 (d) none of these

(iii) How many questions did he guess?

(a) 51 (b) 24 (c) 54 (d) none of these

(iv) If answer to all questions he attempted by guessing were wrong, answered 80 correctly, then how many marks he got?

(a) 70 (b) 80 (c) 40 Now we need your big blessings sir. (d) none of these

Lab Activity ---1

To obtain the conditions for consistency of system of linear equations in two variables by graphical method.

Sanskrit

1) पाठ—1 (वाङ्मयं तपः)के सभी प्रश्नोत्तर को लिखें और याद करें।

2) सन्धि: की परिभाषा, उसके भेद दीर्घ तथा गुण सन्धि की परिभाषा उदाहरण सहित लिखें।

3) परियोजना कार्य—कारक की परिभाषा, उसके भेदों को चार्ट पेपर पर लिखकर रंगीनकर सजाएँ।

4) श्लोक: -- माधुर्यमक्षरव्यक्तिः पदच्छेदस्तु सुस्वरं।

धैर्यं लयसमर्थं च षडेते पाठाः गुणाः

मञ्जूषा---अक्षरव्यक्तिः, सुस्वरं, लयसमर्थं च, षट्

अन्वयः—माधुर्यम्(1).....पदच्छेदः तु(2).....धैर्यम्(3)..... च एते(4).....पाठक
गुणाः सन्ति।

IT (Class-X)

1. Explain different modes of verbal and non-verbal communication with picture in channel file
(At least 2 verbal communication mode and 5 non-verbal communication mode)