

KENDRIYA VIDYALAYA BSF BHIKHIWIND

HOLIDAYS HOMEWORK

Class IX

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

BISMILLAH KHAN

OR

EVELYN GLENNIE

2. Write one page diary entry for **every week of your holidays.**

3. Write a short biosketch of any two famous personalities

4. Write and learn 10 inspirational thoughts.

5. WORKSHEET

1. Gap Filling Exercise

(A) Fill in the blanks with an appropriate word to complete the meaning.

Education is defined as (a) _____ ability of a person to read (b) _____ write .But sadly ,millions of children (c) _____ uneducated in India .

(B) Fill in the blanks with an appropriate word to complete the meaning . Choose the correct word from the options

When the old lady (a) to her flat she saw at once that the burglars (b) in her absence. Though the burglars themselves (c) no longer there she saw at once that they (d)..... because there was a burning cigarette in the ash tray. Probably they (e)..... the lift coming up and (f) down the stairs.

(a) (I) return (II) returning (III) returned (IV) had returned

(b)(I) break (II) broke (III) had broken (IV) were breaking

(c) (I) be (II) were (III) was (IV) are

(d) (I) just leave (II) just leaving (III) are just leaving (IV) had just left

(e) (I) heard (II) hear (III) had heard (IV) hearing

(f) (I) run (II) were running (III) ran (IV) had run

2.-SENTENCE REORDERING/TRANSFORMATION

1. Look at the words and phrases given below in jumbled form. Re-arrange them to form meaningful sentences.

a.wheel is/ Human beings/ invention/ the/ greatest

b.People/ Carried/ their belongings/ backs/ on their/ earlier

c. Their life/ very adventurous/ made/ wheel/ easy/ and like to/travel/ distances/ people now-a-days/ long/ enjoy life/ and

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, (greet, 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)

1. Draw a diagram of various types of cell showing different shape.
2. Make a chart on prokaryotic Cell.
3. Make a chart on Cell.
4. Draw a picture and write the functions of different parts of organelles.
5. Make a chart on compound microscope

MATHS

MCQ WORKSHEET-I
CLASS IX : CHAPTER - 1
NUMBER SYSTEM

1. Rational number $\frac{3}{40}$ is equal to:
(a) 0.75 (b) 0.12 (c) 0.012 (d) 0.075
2. A rational number between 3 and 4 is:
(a) $\frac{3}{2}$ (b) $\frac{4}{3}$ (c) $\frac{7}{2}$ (d) $\frac{7}{4}$
3. A rational number between $\frac{3}{5}$ and $\frac{4}{5}$ is:
(a) $\frac{7}{5}$ (b) $\frac{7}{10}$ (c) $\frac{3}{10}$ (d) $\frac{4}{10}$
4. A rational number between $\frac{1}{2}$ and $\frac{3}{4}$ is:
(a) $\frac{2}{5}$ (b) $\frac{5}{8}$ (c) $\frac{4}{3}$ (d) $\frac{1}{4}$
5. Which one of the following is not a rational number:
(a) $\sqrt{2}$ (b) 0 (c) $\sqrt{4}$ (d) $\sqrt{-16}$
6. Which one of the following is an irrational number:
(a) $\sqrt{4}$ (b) $3\sqrt{8}$ (c) $\sqrt{100}$ (d) $-\sqrt{0.64}$
7. Decimal representation of $\frac{1}{5}$ is :
(a) 0.2 (b) 0.5 (c) 0.02 (d) 0.002
8. $3\frac{3}{8}$ in decimal form is:
(a) 3.35 (b) 3.375 (c) 33.75 (d) 337.5
9. $\frac{5}{6}$ in the decimal form is:
(a) $0.8\bar{3}$ (b) $0.8\bar{33}$ (c) $0.6\bar{3}$ (d) $0.6\bar{33}$
10. Decimal representation of rational number $\frac{8}{27}$ is:
(a) $0.29\bar{6}$ (b) $0.29\bar{6}$ (c) $0.29\bar{6}$ (d) 0.296

MCQ WORKSHEET-II
CLASS IX : CHAPTER - 1
NUMBER SYSTEM

1. Which one of the following is a rational number:
(a) $\sqrt{3}$ (b) $\sqrt{2}$ (c) 0 (d) $\sqrt{5}$
2. 0.6666 in $\frac{p}{q}$ form is:
(a) $\frac{6}{99}$ (b) $\frac{2}{3}$ (c) $\frac{3}{5}$ (d) $\frac{1}{66}$
3. $4\frac{1}{8}$ in decimal form is:
(a) 4.125 (b) $4.\overline{15}$ (c) $4.1\overline{5}$ (d) $0.4\overline{15}$
4. The value of $(3+\sqrt{3})(3-\sqrt{3})$ is:
(a) 0 (b) 6 (c) 9 (d) 3
5. The value of $(\sqrt{5}+\sqrt{2})^2$ is:
(a) $7+2\sqrt{5}$ (b) $1+5\sqrt{2}$ (c) $7+2\sqrt{10}$ (d) $7-2\sqrt{10}$
6. The value of $(\sqrt{5}+\sqrt{2})(\sqrt{5}-\sqrt{2})$ is:
(a) 10 (b) 7 (c) 3 (d) $\sqrt{3}$
7. The value of $(3+\sqrt{3})(2+\sqrt{2})$ is:
(a) $6+3\sqrt{2}+2\sqrt{3}+\sqrt{6}$
(b) $3+3\sqrt{2}+3\sqrt{3}+6$
(c) $6-3\sqrt{2}-2\sqrt{3}-\sqrt{6}$
(d) $6-3\sqrt{2}+2\sqrt{3}-\sqrt{6}$
8. The value of $(\sqrt{11}+\sqrt{7})(\sqrt{11}-\sqrt{7})$ is:
(a) 4 (b) -4 (c) 18 (d) -18
9. The value of $(5+\sqrt{5})(5-\sqrt{5})$ is :
(a) 0 (b) 25 (c) 20 (d) -20
10. On rationalizing the denominator of $\frac{1}{\sqrt{7}}$, we get
(a) 7 (b) $\frac{\sqrt{7}}{7}$ (c) $\frac{-\sqrt{7}}{7}$ (d) $\sqrt{7}$

MCQ WORKSHEET-III
CLASS IX : CHAPTER - 1
NUMBER SYSTEM

1. On rationalizing the denominator of $\frac{1}{\sqrt{7}-\sqrt{6}}$, we get
(a) $\frac{\sqrt{7}+\sqrt{6}}{\sqrt{7}-\sqrt{6}}$ (b) $\frac{\sqrt{7}-\sqrt{6}}{\sqrt{7}+\sqrt{6}}$ (c) $\sqrt{7}+\sqrt{6}$ (d) $\sqrt{7}-\sqrt{6}$
2. On rationalizing the denominator of $\frac{1}{\sqrt{5}+\sqrt{2}}$, we get
(a) $\sqrt{5}-\sqrt{2}$ (b) $\sqrt{2}-\sqrt{5}$ (c) $\frac{\sqrt{5}-\sqrt{2}}{3}$ (d) $\frac{\sqrt{2}-\sqrt{5}}{3}$
3. On rationalizing the denominator of $\frac{1}{\sqrt{7}-2}$, we get
(a) $\sqrt{7}-2$ (b) $\sqrt{7}+2$ (c) $\frac{\sqrt{7}+2}{3}$ (d) $\frac{\sqrt{7}-2}{3}$
4. On rationalizing the denominator of $\frac{1}{\sqrt{2}}$, we get
(a) 2 (b) $\sqrt{2}$ (c) $\frac{2}{\sqrt{2}}$ (d) $\frac{\sqrt{2}}{2}$
5. On rationalizing the denominator of $\frac{1}{2+\sqrt{3}}$, we get
(a) $2-\sqrt{3}$ (b) $\sqrt{3}-2$ (c) $2+\sqrt{3}$ (d) $-\sqrt{3}-2$
6. On rationalizing the denominator of $\frac{1}{\sqrt{3}-\sqrt{2}}$, we get
(a) $\frac{1}{\sqrt{3}+\sqrt{2}}$ (b) $\sqrt{3}+\sqrt{2}$ (c) $\sqrt{2}-\sqrt{3}$ (d) $-\sqrt{3}-\sqrt{2}$
7. The value of $64^{\frac{1}{2}}$ is :
(a) 8 (b) 4 (c) 16 (d) 32
8. The value of $32^{\frac{1}{5}}$ is :
(a) 16 (b) 160 (c) 2 (d) 18
9. The value of $(125)^{\frac{1}{3}}$ is :
(a) 5 (b) 25 (c) 45 (d) 35
10. The value of $9^{\frac{3}{2}}$ is :
(a) 18 (b) 27 (c) -18 (d) $\frac{1}{27}$
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MCQ WORKSHEET-IV
CLASS IX : CHAPTER - 1
NUMBER SYSTEM

1. The value of $32^{2/5}$ is :
(a) 2 (b) 4 (c) 16 (d) 14
2. The value of $16^{3/4}$ is :
(a) 4 (b) 12 (c) 8 (d) 48
3. The value of $125^{-\frac{1}{3}}$ is :
(a) $\frac{1}{5}$ (b) $\frac{1}{25}$ (c) $\frac{1}{15}$ (d) $\frac{1}{125}$
4. The value of $11^{1/2} \div 11^{1/4}$ is :
(a) $11^{1/4}$ (b) $11^{3/4}$ (c) $11^{1/8}$ (d) $11^{1/2}$
5. The value of $64^{-3/2}$ is :
(a) $\frac{1}{96}$ (b) $\frac{1}{64}$ (c) 512 (d) $\frac{1}{512}$
6. The value of $(125)^{\frac{2}{3}}$ is :
(a) 5 (b) 25 (c) 45 (d) 35
7. The value of $25^{3/2}$ is :
(a) 5 (b) 25 (c) 125 (d) 625
8. The value of $\frac{1}{11}$ in decimal form is:
(a) $0.0\overline{99}$ (b) $0.9\overline{09}$ (c) $0.\overline{09}$ (d) $0.00\overline{9}$
9. Decimal expansion of a rational number is terminating if in its denominator there is:
(a) 2 or 5 (b) 3 or 5 (c) 9 or 11 (d) 3 or 7
10. The exponent form of $\sqrt[3]{7}$ is:
(a) 7^3 (b) 3^7 (c) $7^{1/3}$ (d) $3^{1/7}$

PRACTICE QUESTIONS
CLASS IX : CHAPTER - 1
NUMBER SYSTEM

1. Simplify the following:

(i) $(4\sqrt{3} - 2\sqrt{2})(3\sqrt{2} + 4\sqrt{3})$

(ii) $(2 + \sqrt{3})(3 + \sqrt{5})$

(iii) $(\sqrt{3} + \sqrt{2})^2$

(iv) $\left(\frac{2}{3}\sqrt{7} - \frac{1}{2}\sqrt{2} + 6\sqrt{11}\right) + \left(\frac{1}{3}\sqrt{7} + \frac{3}{2}\sqrt{2} - \sqrt{11}\right)$

2. Rationalize the denominator of the following:

(i) $\frac{2}{\sqrt{3} - \sqrt{5}}$ (ii) $\frac{\sqrt{3} + \sqrt{2}}{\sqrt{3} - \sqrt{2}}$ (iii) $\frac{6}{\sqrt{5} + \sqrt{2}}$ (iv) $\frac{1}{8 + 5\sqrt{2}}$

(v) $\frac{3 - 2\sqrt{2}}{3 + 2\sqrt{2}}$ (vi) $\frac{\sqrt{3} - 1}{\sqrt{3} + 1}$ (vii) $\frac{4}{\sqrt{7} + \sqrt{3}}$ (viii) $\frac{1}{5 + 3\sqrt{2}}$

3. Rationalise the denominator of the following:

(i) $\frac{2}{3\sqrt{3}}$ (ii) $\frac{16}{\sqrt{41} - 5}$ (iii) $\frac{\sqrt{5} + \sqrt{2}}{\sqrt{5} - \sqrt{2}}$

(iv) $\frac{\sqrt{40}}{\sqrt{3}}$ (v) $\frac{3 + \sqrt{2}}{4\sqrt{2}}$ (vi) $\frac{2 + \sqrt{3}}{2 - \sqrt{3}}$

(vii) $\frac{\sqrt{6}}{\sqrt{2} + \sqrt{3}}$ (viii) $\frac{3\sqrt{5} + \sqrt{3}}{\sqrt{5} - \sqrt{3}}$ (ix) $\frac{4\sqrt{3} + 5\sqrt{2}}{\sqrt{48} + \sqrt{18}}$

4. If $a = 6 - \sqrt{35}$, find the value of $a^2 + \frac{1}{a^2}$.

5. If $x = 3 + \sqrt{8}$, find the value of (i) $x^2 + \frac{1}{x^2}$ and (ii) $x^4 + \frac{1}{x^4}$

6. Simplify, by rationalizing the denominator $\frac{2\sqrt{6}}{\sqrt{2} + \sqrt{3}} + \frac{6\sqrt{2}}{\sqrt{6} + \sqrt{3}} - \frac{8\sqrt{3}}{\sqrt{6} + \sqrt{2}}$

7. Simplify, by rationalizing the denominator

$$\frac{1}{3 - \sqrt{8}} - \frac{1}{\sqrt{8} - \sqrt{7}} + \frac{1}{\sqrt{7} - \sqrt{6}} - \frac{1}{\sqrt{6} - \sqrt{5}} + \frac{1}{\sqrt{5} - 2}$$

8. If $x = \frac{\sqrt{2} + 1}{\sqrt{2} - 1}$ and $y = \frac{\sqrt{2} - 1}{\sqrt{2} + 1}$, find the value of $x^2 + y^2 + xy$.

9. If $x = \frac{\sqrt{3} + \sqrt{2}}{\sqrt{3} - \sqrt{2}}$ and $y = \frac{\sqrt{3} - \sqrt{2}}{\sqrt{3} + \sqrt{2}}$, find the value of $x^2 + y^2$.

10. If $x = \frac{\sqrt{5} + \sqrt{3}}{\sqrt{5} - \sqrt{3}}$ and $y = \frac{\sqrt{5} - \sqrt{3}}{\sqrt{5} + \sqrt{3}}$, find the value of $x + y + xy$.

11. If $x = \frac{2 - \sqrt{5}}{2 + \sqrt{5}}$ and $y = \frac{2 + \sqrt{5}}{2 - \sqrt{5}}$, find the value of $x^2 - y^2$.

12. If $\frac{5+2\sqrt{3}}{7+\sqrt{3}} = a - \sqrt{3}b$, find a and b where a and b are rational numbers.

13. If a and b are rational numbers and $\frac{4+3\sqrt{5}}{4-3\sqrt{5}} = a + b\sqrt{5}$, find the values of a and b.

14. If a and b are rational numbers and $\frac{2+\sqrt{3}}{2-\sqrt{3}} = a + b\sqrt{3}$, find the values of a and b.

15. If a and b are rational numbers and $\frac{\sqrt{11}-\sqrt{7}}{\sqrt{11}+\sqrt{7}} = a - b\sqrt{77}$, find the values of a and b.

16. Find the value of a and b in $\frac{\sqrt{3}-1}{\sqrt{3}+1} = a + b\sqrt{3}$.

17. Find the value of a and b in $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a + b\sqrt{3}$

18. Find the value of a and b in $\frac{5-\sqrt{6}}{5+\sqrt{6}} = a - b\sqrt{6}$

19. Simplify $\frac{4+\sqrt{5}}{4-\sqrt{5}} + \frac{4-\sqrt{5}}{4+\sqrt{5}}$ by rationalizing the denominator.

20. Simplify $\frac{\sqrt{5}-1}{\sqrt{5}+1} + \frac{\sqrt{5}+1}{\sqrt{5}-1}$ by rationalizing the denominator.

21. Show that 3.142678 is a rational number. In other words, express 3.142678 in the form of $\frac{p}{q}$, where p and q are integers and $q \neq 0$.

22. Show that 0.3333..... can be expressed in the form of $\frac{p}{q}$, where p and q are integers and $q \neq 0$.

23. Show that 1.27272727..... can be expressed in the form of $\frac{p}{q}$, where p and q are integers and $q \neq 0$.

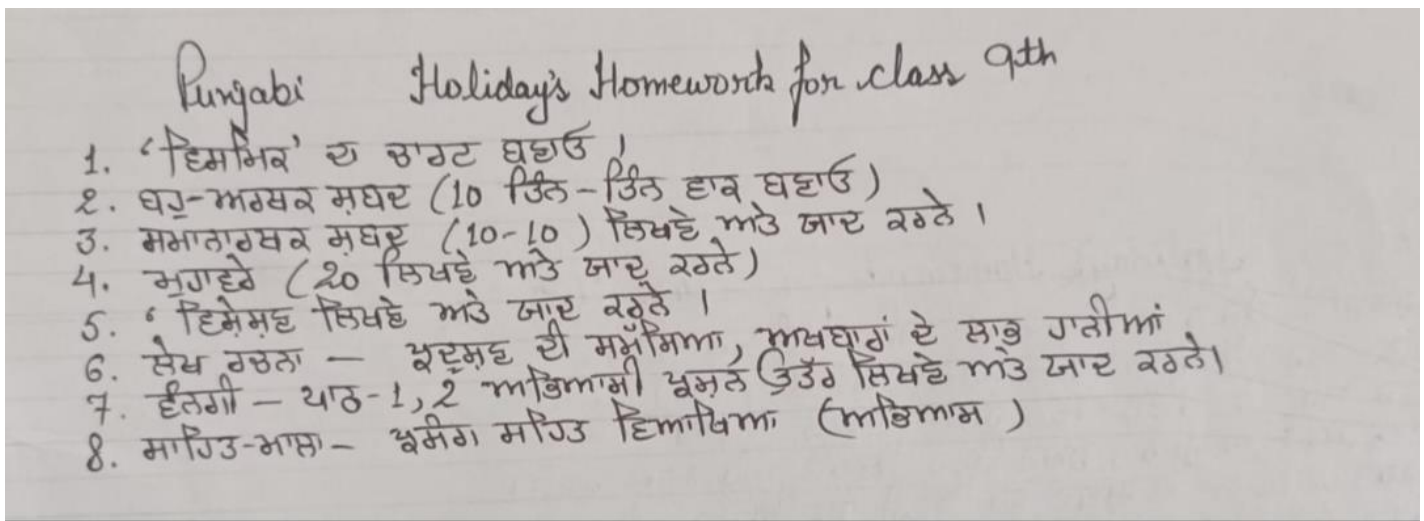
24. Evaluate the following expressions:

$$(i) \left(\frac{256}{6561} \right)^{\frac{3}{8}} \quad (ii) (15625)^{\frac{1}{6}} \quad (iii) \left(\frac{343}{1331} \right)^{\frac{1}{3}} \quad (iv) \sqrt[8]{\frac{6561}{65536}} \quad (v) 343^{-\frac{1}{3}}$$

25. Evaluate the following expressions:

$$(i) \left(\frac{625}{81} \right)^{-\frac{1}{4}} \quad (ii) 27^{\frac{2}{3}} \times 27^{\frac{1}{3}} \times 27^{-\frac{4}{3}} \quad (iii) (6.25)^{\frac{3}{2}} \\ (iv) (0.000064)^{\frac{5}{6}} \quad (v) (17^2 - 8^2)^{\frac{1}{2}}$$

.....



Class 9 AI – Holiday Homework**

Part A: Theory

1. **Define Artificial Intelligence.**
 - Write a brief explanation in your own words.
 - Mention 3 real-life examples where AI is used.
2. **Differentiate between AI, Machine Learning, and Deep Learning.**
 - Create a comparison table with definitions and examples.
3. **Ethics in AI**
 - Write a short paragraph on the importance of ethics in AI.
 - Mention 2 possible negative impacts of AI if misused.

Part B: Research-Based Activity

1. **AI Around Us**
 - Find any 2 AI tools/apps you use in daily life (e.g., Google Assistant, ChatGPT).
 - Write their names, what they do, and how they help you.
2. **Career Exploration**
 - Choose one AI-related career (e.g., Data Scientist, AI Engineer).
 - Mention required skills, qualifications, and future scope.

Part C: Creative Work

1. ****Poster Making****

- Design a poster (digital or handmade) on the topic: ****"The Role of AI in Future Education."****

2. ****Flowchart Design****

- Create a simple flowchart of a smart home system using AI (lights, security, temperature).

****Submission Format:****

- Submit a PDF or physical notebook with all answers.
- Include images/diagrams where possible.

SUBJECT – SOCIAL SCIENCE

1. Project work on Disaster Management as per CBSE guidelines as mention below.

Project work Competencies

Every student must undertake one project on Disaster Management

Objectives: The main objectives of giving project work on Disaster Management to the students are to:

- To create awareness in them about different disasters, their consequences and management
- To prepare them in advance to face such situations
- To ensure their participation in disaster risk reduction plans
- To enable them to create awareness and preparedness among the community.
- The project work helps in enhancing the Life Skills of the students.
- Various forms of art must be integrated in the project work. The students will develop the following competencies:
 - Collaboration
 - Use analytical skills.
 - Evaluate the situations during disasters.
 - Synthesize the information.
 - Find creative solutions.
 - Strategies the order of solutions.
 - Use the right communication skills.

Do this in a project file,15-20 pages on A4 sheets, hand write and well decorated)

2. Make and write questions and answers of one mark (one word, one sentence and mcq) of French Revolution , India: Size and Location,The story of village Palampur and What is democracy?Why democracy? At least 10 from each chapter.

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

HINDI

ग्रीष्मकालीन अवकाश गृहकार्य (2025-26)

कक्षा: 9

- 1) "तुम्हारे जीवन का लक्ष्य" पर एक अनुच्छेद लिखिए ।
- 2) एक औपचारिक पत्र लिखिए ।
- 3) एक अनौपचारिक पत्र लिखिए ।
- 4) संज्ञा की परिभाषा (10 उदाहरण) और संज्ञा के भेद (उदाहरण सहित) ।
- 5) उपसर्ग की परिभाषा लिखें व अधोलिखित उपसर्ग से 2-2 शब्द बनाएँ -
अन् , अधि , अप , अनु , चिर , परा , प्रति , सु , अध , औ , कु , भर ,
अल , कम
- 6) प्रत्यय की परिभाषा लिखें व अधोलिखित प्रत्यय से 2-2 शब्द बनाएँ -
आई , आक , आन , आवट , आहट , आवना , आलू , इयल , एरा , वान
इक
- 7) 10 पेज सुलेख लिखें ।
- 8) 50 कठिन शब्द ।

ART

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) |
|  | |

Subject – Vocational Education

QUESTIONS:

Ques 1: What are the safety requirements when working on electrical equipment? Write down atleast 10 points. (on A3 Sheets)

Ques 2: Write and draw the common tools used for electrical work.(At Least two tools on A3 sheets)

Ques 3: Write down the electrical appliances or accessories which are used at your home.

Ques 4: Write five points by which we can save electrical energy at home and school.(On A3 Sheet)

Project:

Make a Simple LED Lights or Buzzer Circuit Using a 9V battery.

