# THE S D VIDYA SCHOOL,NOIDA SUMMER HOLIDAY HOMEWORK (2024-25) CLASS - X 

## Dear students,

## "Self-belief and hard work will always earn you success."

Holidays provide a much-needed respite from the daily routine and academic pressure. It allows you to unwind, spend quality time with family and friends, and engage in activities you love. Balancing holidays and studies is a crucial aspect of a student's life. While they are meant for relaxation and enjoyment, it is equally important to maintain a certain level of focus on studies during these breaks. By setting realistic goals and creating a conducive study environment, you can effectively utilize holidays to consolidate knowledge, enhance skills, and stay academically on track. Moreover, incorporating breaks and leisure activities into your study routine can help to maintain focus, reduce stress, and make study sessions more productive. Ultimately, by finding the right balance between holidays and studies you can enjoy the break while also making progress in your academic journey.

## KEEP IN MIND TO:

- Pray to the Almighty daily and thank Him for the blissful life that you enjoy.
- Give prime importance to your health.
- Set and maintain a routine at home. Be a good time manager.
- Practice positive thinking and be grateful for what we have.
- Relax, listen to music, or read books.
- Be a helping hand to your parents and learn the skill of shared responsibility.


## MOST IMPORTANT:

- Make sure that all the syllabus done by May is revised thoroughly.
- Complete the assignments.


## REMEMBER:

"THE FUTURE BELONGS TO THE COMPETENT. GET GOOD, GET BETTER, BE THE BEST!"

## Wishing all the students a joyful learning and happy holidays.

## ENGLISH <br> PROJECT: THE BOOKLET

A beautiful booklet (a small thin book, usually with a soft cover, that gives information about something) is to be created of 5 to 10 pages with a catchy book cover, a book review and vocabulary.
Follow the following steps to complete the project-
Step 1-Read a book of your choice from the following literary genres and remember to mark the difficult words (minimum 20 words maximum 25) you come across-

- Fantasy
- Science fiction
- Mystery
- Nonfiction
- Biography
- Thriller
- Fable
- Historical
- Legend
- Mythology
- Narrative
- Folklore

Step 2-Design a book cover for your booklet in accordance with the contents (the book review and vocabulary) of your booklet.
Step 3-Write the review of the book you read (with the heading-BOOK REVIEW along with the name of the book) inside the booklet (either on A4 size pages or pages smaller than A4).
Step 4-After the completion of the book review, find meanings of the marked words(as directed to you in step 1). Also find out what part of speech each word belongs to and make one sentence of your own with every word.
Step 5-Now, beautifully write down the words, their meanings, the part of speech they belong to along with their usage in sentences in further pages of your booklet under the heading-MY MINI DICTIONARY.
Step 6-Feel free to sprinkle your creativity and curate a beautiful booklet. You may draw/paste pictures too and make use of colored sheets. Do not forget to mention your name, class and roll number on the last page of the booklet.
HAPPY READING!!!

## ASSIGNMENT: A STUDY OF POETIC DEVICES

Find out and write down the meanings of the following poetic devices in your Literature register (each devise must be accompanied by an example)-

Imagery
Personification
Alliteration
Oxymoron
Allusion

Irony
Repetition
Onomatopoeia
Symbolism
Assonance

Metaphor
Simile
Hyperbole
Anaphora
Transferred Epithet

## SOCIAL SCIENCE

- Every student has to compulsorily undertake one project on -

Consumer Awareness
OR
Social Issues
OR
Sustainable Development
Objectives:

- The overall objective of the project work is to help students gain an insight and pragmatic understanding of the theme and see all the Social Science disciplines from an interdisciplinary perspective.
- It should also help in enhancing the Life Skills of the students.


## HISTORY ASSIGNMENT (TO BE DONE IN CLASS NOTEBOOK) THE RISE OF NATIONALISM IN EUROPE

1. Name the states offering homage to the Statue of Liberty.
2. Describe any four provisions of the Napoleon Civil Code of 1804.
3. Explain any three causes of conflict in the 'Balkan area' after 1871.
4. Name the event that mobilised nationalist feelings among the educated elite across Europe in 1830-1848?
5. Who was proclaimed German Emperor in a ceremony held at Versailles in January 1871?
6. What did Liberal Nationalism stand for? Explain any four ideas of Liberal Nationalists in the economic sphere.
7. What was the major change that occurred in the political and constitutional scenario due to the French Revolution in Europe?
8. Name the Treaty of 1832 that recognised Greece as an independent nation.
9. What was the main aim of the French revolutionaries?
10. Describe any three steps taken by the French revolutionaries to create a sense of collective identity among the French people.
11. Examine the role of women in nationalist struggles of Europe.
12. Why were the years of 1830s of great hardship in Europe? Explain any five reasons.
13. Prepare a Power point presentation on Hunger, Hardship and Popular revolt.
14. Paste the Pictures of Marriane and Germania and its symbol.
15. How did culture play an important role in creating the idea of the 'nation' in Europe? Explain with examples.

## MATHS

Project - Apply mathematics on monuments to
Identify the different shapes as cube, cuboid, cylinder, cone, hemisphere and sphere and also for each give a detailed description of its surface area and volume.

## ASSIGNMENT

Chapter 1 Real Numbers

1. The total of factors of a prime number is
(a) 1
(b) 0
(c) 2
(d) 3
2. The ratio of HCF to LCM of the least composite number and the least prime number is.
(a) $1: 2$
(b) $2: 1$
(c) $1: 1$
(d) $1: 3$
3. If $\operatorname{HCF}(39,91)=13$, then $\operatorname{LCM}(39,91)$ is
(a) 91
(b) 273
(c) 39
(d) 3549
4. Two positive numbers have their HCF as 12 and their product as 6336 . The number of pairs possible for the number, is
(a) 2
(b) 3
(c) 4
(d) 1
5. If ' $n$ ' is any natural number, then (12) ${ }^{n}$ cannot end with the digit
(a) 2
(b) 4
(3) 8
(d) 0
6. The number 385 can be expressed as the product of prime factors as
(a) $5 \times 11 \times 13$ (b) $5 \times 7 \times 11$
$\begin{array}{ll}\text { (c) } 5 \times 7 \times 13 & \text { (c) } 5 \times 11 \times 17\end{array}$
7. The HCF and the LCM of 12, 21 and 15 respectively, are
(a)
3,140 (b)
12,420
(c) 3,420
(d) 420, 3
8. The LCM of two numbers is 182 and their HCF is 13 . If one of the numbers is 26 , find the other.
9. The LCM of Two numbers is 9 times their HCF. The sum of LCM and HCF is 500 . Find the HCF of the two numbers.
10. if $\operatorname{HCF}(336,54)=6$, find $\operatorname{LCM}(336,54)$.
11. The HCF of two numbers $a$ and $b$ is 5 and their LCM is 200 . Find the product ab.
12. What is the HCF of smallest prime number and the smallest composite number?
13. Show that any number of the form $6^{n}$, where $\mathrm{n} \in N$ can never end with digit 0 .
14. The HCF of two number is 27 and their LCM is 162 , if one of the number is 54 , find the other number.
15. The LCM of two numbers is 2079 and their HCF is 27 . If one of the number is 297 . Find the other number.
16.Find the least number which when divided by 12,16 and 24 leaves reminder 7 in each case.
16. Two numbers are in the ration $2: 3$ and their LCM is 180 . What is the HCF of these numbers?
17. Explain why $2 \times 3 \times 5+5$ and $5 \times 7 \times 11+7 \times 5$ are composite numbers. 19. IF HCF of 65 and 117 is expressible in the form $65 \mathrm{n}-117$, then find the value of $n$
18. find the HCF of 612 and 1314 using prime factorization.
19. Express 5050 as product of its prime factors. Is it unique?
20. Show that the number 231 and 396 are not co-prime.
21. Find HCF and LCM of 404 and 96 and verify that $\mathrm{HCF} \times L C M=$ product of the two given numbers.
22. An army contingent of 678 soldiers is to march behind an army band of 36 members in a republic day parade. The two groups are to march in the same number of columns. What is the maximum number of columns they can march?

## Chapter 2 Polynomials

1. If one of the zeroes of a quadratic polynomial $(k-1) x^{2}+k x+1$ is -3 then the value of $k$ is
(a) $\frac{4}{3}$
(b) $-\frac{4}{3}$
(c) $\frac{2}{3}$
(d) $-\frac{2}{3}$
2. the degree of polynomial having zeroes -3 and 4 only is
(a) 2
(b) 1
(c) more than 3
(b) 3

3 . if one of the zeroes of the quadratic polynomial $x^{2}+3 x+k$ is 2 , then the value of k is
(a) 10
(b) -10
(c) -7
(d) -2
4. The graph of $\mathrm{y}=\mathrm{p}(\mathrm{x})$ is given, for a polynomial $\mathrm{p}(\mathrm{x})$ the number of zeroes of $p(x)$ from the graph is

(a) 3
(b) 1
(c) 2
(d) 0
5. Which of the following is a quadratic polynomial with zeroes $\frac{5}{3}$ and 0 ?
(a) $3 x(3 x-5)$
(b) $3 x(x-5)$
(c) $x^{2}-\frac{5}{3}$
(d) $\frac{5}{3} x^{2}$
6. if $\alpha, \beta$ are the zeroes of polynomial $\mathrm{p}(\mathrm{x})=\mathrm{x}^{2}+\mathrm{x}-1$ then $\frac{1}{\alpha}+\frac{1}{\beta}$ equal to
(a) 1
(b) 2
(c) -1 (d) $\frac{-1}{2}$
7. if $\alpha, \beta$ are the zeroes of polynomial $x^{2}-1$, then value of $(\alpha+\beta)$
(a) 2
(b) 1
(c) -1
(d) 0
8. . if $\alpha, \beta$ are the zeroes of polynomial $\mathrm{p}(\mathrm{x})=4 \mathrm{x}^{2}-3 \mathrm{x}-7$, then $\left(\begin{array}{l}1 \\ \alpha\end{array}{ }_{\beta}^{1}\right.$ ) is equal to
(a) $\frac{7}{3}$
(b) ${ }_{3}^{-7}$
(c) $\frac{3}{7}$
(d) $\frac{-3}{7}$
9. What is the shape of the curve EFG?

(a) parabola
(b) Ellipse
(c) straight line
(d) circle
10. if the curve $A B C$ is represented by the polynomial $=\left(x^{2}+4 x+3\right)$, then its zeroes are
(a) 1 and -3 (B) -1 and 3
(c) 1 and 3 (d) -1 and -3
11. if the path traced by the car has zeroes at -1 and 2 then it is given by
(a) $x^{2}+x+2$
(b) $x^{2}-x+2$
(c) $x^{2}-x-2$ (d) $x^{2}+x+2$
12. The number of zeroes of the polynomial representing the whole curve, is
(a)
4 (b) 3 (c) 2
(d) 1
13. The distance between $c$ and $G$ is
(a) $x^{2}+5 x+6$
(b) $x^{2}-5 x+6$ (c) $x^{2}-5 x-6$ (d) $-x^{2}+5 x+6$
15. if $\alpha$ and $\beta$ are zeroes of the quadratic polynomial $f(x)=x^{2}-x-4$, find value of $\frac{1}{\alpha}+\frac{1}{\beta}-\alpha \beta$.
16. if one zero of the quadratic polynomial $x^{2}+3 x+k$ is 2 , then find the value of k .
17. if $\alpha, \beta$ are zeroes of the polynomial $2 x^{2}+-5 z-4$, then $\frac{1}{\alpha}+\frac{1}{\beta}=$ $\qquad$
18. If $\alpha, \beta$ are zeroes of the polynomial $-3 \mathrm{x}^{2}+\mathrm{x}-5$, then the value of $\frac{1}{\alpha}+$ $\frac{1}{\beta}$ is $\qquad$
19. Form a quadratic polynomial the sum and product of whose zeroes are 3 and 2 respectively.
20 Find the quadratic polynomial whose zeroes are 3 and -4 respectively.
21. if one zero of the polynomial $p(x)=6 x^{2}+37 x-(k-2)$ is reciprocal of the other, then find the value of k .
22. if $\alpha, \beta$ are zeros of the polynomial $\mathrm{x}^{2} \mathrm{p}(\mathrm{x}+1)+\mathrm{c}$ such that $(\alpha+1)(\beta+1)=0$ then find the value of $c$.
23. if $\alpha, \beta$ are zeros of $4 x^{2}+3 x+7$, then find the value of $\frac{1}{\alpha}+\frac{1}{\beta}$.
24.find a quadratic polynomial whose zeroes are reciprocal of the zeroes of the polynomial
$\mathrm{F}(\mathrm{x})=\mathrm{ax}^{2}+\mathrm{bx}++\mathrm{c}, \mathrm{a} \neq 0 \mathrm{c} \neq 0$

## Chapter 3

## Pair of linear equations in two variables

1. The pair of linear equation $2 x=5 y+6$ and $15 y=6 x-18$ represents two lines which are
(a) Intersecting (b) parallel
(c) coincident
(d) either intersecting parallel
2. The pair of linear equations
$\frac{3 x}{2}+\frac{5 y}{3}=7$ and $9 \mathrm{x}+10 \mathrm{y}=14$ is
(a) Consistent (b) inconsistent (c) consistent with one solution (d) consistent with many solutions
3. Find whether the lines representing the following pair of linear equation intersect at point, are parallel or coincident.
4. Find whether the lines representing the following pair of linear equation intersects at a point are parallel or coincident:
$\frac{3}{2} x+\frac{5}{3} y=7$ and $\frac{3}{2} x+\frac{2}{3} y=6$
5. find whether the lines representing the following pair of linear equations insects at a point, are parallel of coincident:

$$
2 x+y+3=0,4 x+2 y+6=0
$$

6. the pair of lines represented by the linear equations $3 x+2 y=7$ and $4 x$ $+8 \mathrm{y}-11=0$ are
(a) perpendicular (b) parallel (c) intersecting (d) coincident
7. the pair of equation $y=2$ and $y=-3$ has
(a) one solution (b) two solution (c) infinity many solutions (d) no solution
8. the pair of equations $x=5$ and $y=5$ has
(a) no solution
(b) unique solution
(c) many solutions
(d) only solution $(0,0)$
9. the pair of equations $x=a$ and $y=b$ graphically represent lines which are
(a) intersection at $(a, b)$
(B) intersecting (b, a) (c) coincident (d) parallel
10. solve the pair of equations $x=5$ and $y=7$ graphically.
11. using graphically the coordinates of the vertices of a triangle, the equation of whose sides are given by $2 y-x=8,5 y-x=14$ and $y-2 x$ = 1
12. solve the equations $x+2 y=6$ and $2 x-5 y=12$
13. using graphical method find whether pair of equation $x=0$ and $y=-3$ is consistent or not?
14. draw the graph of the equations $x-y+=0$ and $3 x+2 y-12=0$. Using this graph, find the value of $x$ and $y$ which satisfy both the equations.
15. For Uttarakhand flood victims two sections a and bof class $x$ contributed rupees 1500 . If the contribution of X A was rupees, 100 less than the of X B find graphically the amounts contributed by both the sections.
16. Three lines $3 x+5 y=15,6 x-5 y=30$ and $x=0$ are enclosing a beautiful triangular park. Find the points of intersection of the lines graphically and the area of the park if all measurements are in km.

What type of behavior should be expected by public in this type of park?
17. Solve the following pair of linear equations graphically $6 x-y+4=0$ and $2 x-5 y=8$ shade the region bounded by the lines and $y-a x i s$ and y - axis.
18. Find the graphically solution of

$$
X-2 y=0 \text { and } 3 z+4 y=20
$$

19. Solve graphically the following pair of linear equations

$$
2 y-3 x=14,2 x+3 y=8
$$

Hence, shade the region enclosed by these lines and y - axis.
20. Draw the graph of the following pair of linear equations :
$X+3 y=6$ and $2 x-3 y=12$
Find the ratio of the areas of the two triangles formed by first line, $x=0$ $y=0$ and second lines, $x=0, y=0$.
21. Solve the following pair of linear equations graphically:

$$
\begin{aligned}
& 2 x+y=4 \\
& 2 x-y=4
\end{aligned}
$$

Also find the co- ordinates of the vertices of the triangle formed by the lines with $y$-axis and also find the area of triangle.

## SCIENCE

Make working model on any one of the following topics-

1. Environmental Concerns
2. Waste Management
3. Technology \& Toys
4. Communication \& Transport

Also write project report for the chosen topic.

## Project report to be written in the given format-

a) Topic
b) Material Required
c) Theory
d) Principle
e) Circuit Diagram
f) Procedure
g) Applications

Reference-

1. https://youtu.be/4h9_RfR-VUM
2. https://youtu.be/DpcRcgvfEQ4?si=-1Lca7QQUAwcHvdS
3. https://youtu.be/VlpJeBBwwNO

## CHEMISTRY

ASSIGNMENT

## Complete the given assignment in A-4 sheet.

Choose the correct answer:

1. Which of the following is not a physical change?
(a) Boiling of water to give water vapour
(b) Melting of ice to give water
(c) Dissolution of salt in water
(d) Combustion of Liquefied Petroleum Gas (LPG)
2. The following reaction is an example of a
$4 \mathrm{NH}_{3}(\mathrm{~g})+5 \mathrm{O}_{2}(\mathrm{~g}) \rightarrow 4 \mathrm{NO}(\mathrm{g})+6 \mathrm{H} 2 \mathrm{O}(\mathrm{g})$
(i) displacement reaction (ii) combination reaction
(iii) redox reaction (iv) neutralisation reaction
(a) (i) and (iv)
(b) (ii) and (iii)
(c) (i) and (iii) (d) (iii) and (iv)
3. Which of the following statements about the given reaction are correct?
$3 \mathrm{Fe}(\mathrm{s})+4 \mathrm{H} 2 \mathrm{O}(\mathrm{g}) \rightarrow \mathrm{Fe} 3 \mathrm{O} 4(\mathrm{~s})+4 \mathrm{H} 2(\mathrm{~g})$
(i) Iron metal is getting oxidised (ii) Water is getting reduced (iii) Water is acting as reducing agent (iv) Water is acting as oxidising agent
(a) (i), (ii) and (iii)
(b) (iii) and (iv)
(c) (i), (ii) and (iv)
(d) (ii) and (iv)
4. Which of the following are exothermic processes? (i) Reaction of water with quick lime (ii) Dilution of an acid (iii) Evaporation of water (iv) Sublimation of camphor (crystals)
(a) (i) and (ii)
(b) (ii) and (iii)
(c) (i) and (iv)
(d) (iii) and (iv)
5. Three beakers labelled as A, B and C each containing 25 mL of water were taken. A small amount of NaOH , anhydrous CuSO 4 and NaCl were added to the beakers $\mathrm{A}, \mathrm{B}$ and C respectively. It was observed that there was an increase in the temperature of the solutions contained in beakers A and B, whereas in case of beaker C, the temperature of the solution falls. Which one of the following statement(s) is(are) correct? (i) In beakers A and B, exothermic process has occurred. (ii) In beakers A and B, endothermic process has occurred. (iii) In beaker C exothermic process has occurred. (iv) In beaker C endothermic process has occurred.
(a) (i) only
(b) (ii) only
(c) (i) and (iv)
(d) (ii) and (iii)
6. Which among the following is(are) double displacement reaction(s)? (i)
$\mathrm{Pb}+\mathrm{CuCl} 2 \rightarrow \mathrm{PbCl} 2+\mathrm{Cu}(\mathrm{ii}) \mathrm{Na} 2 \mathrm{SO} 4+\mathrm{BaCl} 2 \rightarrow \mathrm{BaSO} 4+2 \mathrm{NaCl}($ (iii)
$\mathrm{C}+\mathrm{O} 2 \rightarrow \mathrm{CO} 2$ (iv) $\mathrm{CH} 4+2 \mathrm{O} 2 \rightarrow \mathrm{CO} 2+2 \mathrm{H} 2 \mathrm{O}$
(a) (i) and (iv)
(b) (ii) only
(c) (i) and (ii)
(d) (iii) and (iv)
7. Which among the following statement(s) is(are) true? Exposure of silver chloride to sunlight for a long duration turns grey due to (i) the formation of silver by decomposition of silver chloride (ii) sublimation of silver chloride (iii) decomposition of chlorine gas from silver chloride (iv) oxidation of silver chloride
(a) (i) only
(b) (i) and (iii)
(c) (ii) and (iii)
(d) (iv) only
8. Barium chloride on reacting with ammonium sulphate forms barium sulphate and ammonium chloride. Which of the following correctly represents the type of the reaction involved? (i) Displacement reaction
(ii) Precipitation reaction (iii) Combination reaction (iv) Double displacement reaction
(a) (i) only
(b) (ii) only
(c) (iv) only
(d) (ii) and (iv)
9. Electrolysis of water is a decomposition reaction. The mole ratio of hydrogen and oxygen gases liberated during electrolysis of water is
(a) $1: 1$
(b) $2: 1$
(c) $4: 1$
(d) $1: 2$
10. Which of the following is(are) an endothermic process(es)? (i) Dilution of sulphuric acid (ii) Sublimation of dry ice (iii) Condensation of water vapours (iv) Evaporation of water
(a) (i) and (iii)
(b) (ii) only
(c) (iii) only
(d) (ii) and (iv)

Answer the following questions:
11. 2 g of ferrous sulphate crystals are heated in a dry boiling tube.
a) List any two observations.
b) Name the type of chemical reaction taking place.
c) Write the chemical equation for the reaction.

12 When you have mixed the solutions of lead (II) nitrate and potassium iodide.
(a) What was the colour of the precipitate formed?
b) Write the balanced chemical equation for this reaction.
c)Is this a double displacement reaction?

13 The following diagram displays a chemical reaction. Observe carefully and answer the following:
a) Identify the type of chemical reaction that will take place and define it. How will the colour of the
 salt change?
b) Write the chemical equation of the reaction that takes place.
c) Mention one commercial use of this salt.

14 A magnesium ribbon is burnt in oxygen to give a white compound X accompanied by emission oflight. If the burning ribbon is now placed in an atmosphere of nitrogen, it continues to burn and forms a compound Y.
(a) Write the chemical formulae of X and Y .
(b) Write a balanced chemical equation, when X is dissolved in water.

15 A shiny brown coloured element ' X ' on heating in air becomes black in colour.
Name the element ' X ' and the black coloured compound formed.

## PHYSICS

ASSIGNMENT

## Complete the given assignment in A-4 sheet.

## Choose the correct answer-

1. When an object is kept within the focus of a concave mirror, an enlarged image is formed behind the mirror. This image is
(a) real
(b) inverted
(c) virtual and inverted
(d) virtual and erect
2. The laws of reflection hold true for
(a) plane mirrors only
(b) concave mirrors only
(c) convex mirrors only
(d) all reflecting surface
3. A full length of the image of a distant tall building can be seen using $\qquad$ .
(a) a convex mirror
(b) a plane mirror
(c) a concave mirro
(d) none of the options
4. A ray of light is travelling in a direction perpendicular to the boundary of a parallel glass slab. The ray of light:
(a) Is refracted towards the normal
(b) Is refracted away from the normal
(c) Is reflected along the same path
(d) Does not get refracted
5. Which of the following statements is true regarding reflection of light?
(a) The angle of incidence is always greater than the angle of reflection
(b) The angle of incidence is always equal to the angle of reflection
(c) The angle of incidence is always smaller than the angle of reflection
(d) The angle of incidence and angle of reflection are not related
6. Which of the following statements is true regarding the focal length of a convex lens?
(a) It is always positive
(b) It is always negative
(c) It can be either positive or negative
(d) It is always zero
7. The power of a concave lens of focal length 10 cm is:
(a) -10 dioptre
(b) +10 dioptre
(c) -0.1 dioptre
(d) +0.1 dioptre
8. Which one of the following materials cannot be used to make a lens ?
(a) Water
(b) Glass
(c) Plastic
(d) Clay
9. The image formed by a concave mirror is observed to be virtual, erect and larger than the object. Where should be the position of the object ?
(a) Between the principal focus and the centre of curvature
(b) At the centre of curvature
(c) Beyond the centre of curvature
(d) Between the pole of the mirror and its principal focus.
10. Which of the following lenses would you prefer to use while reading small letters found in a dictionary ?
(a) A convex lens of focal length 50 cm .
(b) A concave lens of focal length 50 cm .
(c) A convex lens of focal length 5 cm .
(d) A concave lens of focal length 5 cm .

Answer the following questions:
11. The linear magnification produced by a spherical mirror is +3 . Analyse this value and state the (i) type of mirror and (ii) position of the object with respect to the pole of the mirror. Draw a ray diagram to show the formation of image in this case.
12. Draw ray diagrams for the following cases when a ray of light:
(a) passing through centre of curvature of a concave mirror is incident on it.
(b) parallel to principal axis is incident on convex mirror.
(c) is passing through focus of a concave mirror incident on it.
13. A concave mirror is used for image formation for different positions of an object. What inferences can be drawn about the following when an object is placed at a distance of 10 cm from the pole of a concave mirror of focal length 15 cm ?
(a) Position of the image
(b) Size of the image
(c) Nature of the image
14. An object 4 cm in height, is placed at 15 cm in front of a convex lens of focal length 10 cm . At what distance from the lens should a screen be placed to obtain a sharp image of the object. Calculate the height of the image.
15. A ray of light incident on a rectangular glass slab immersed in any medium emerges parallel to itself." Draw labelled ray diagram to justify the statement.

## BIOLOGY

## WORKSHEET-CIRCULATORY SYSTEM

## Complete the given assignment in A-4 sheet.

1. The instrument by which BP of man is determined:
(a) Ultrasound
(b) BP meter
(c) Stethoscope
(d) Sphygmomanometer
2. Oxygenated blood returns from lungs to the heart through :
(a) Coronary vein
(b) Pulmonary vein
(c) Coronary artery
(d) Pulmonary artery
3. The instrument used to hear heart sound is :
(a) Electrocardiograph
(b) Sphygmomanometer
(c) Stethoscope
(d) Haemometer
4. Haemoglobin is:
(a) Vitamin
(b) Skin pigment
(c) Respiratory pigment
(d) Carbohydrate
5. The heart of a healthy man beats normally per minute:
(a) 85-90 times
(b) 80-90 times
(c) 70-80 times
(d) 60-70 times
6. The impulse of heartbeat originates from:
(a) SA node
(b) Vagus nerve
(c) Cardiac nerve
(d) AV node
7. In humans, $\qquad$ is the difference between systolic and diastolic pressure.
(a) 40 mm Hg
(b) 20 mm Hg
(c) 10 mm Hg
(d) None of the above
8. $\qquad$ is a blood disorder where the haemoglobin is defective
(a) Heterochromia
(b) Alopecia
(c) Hemolysis
(d) Sickle cell anemia
9. The normal diastolic blood pressure in a normal healthy adult human is
(a) 80 mm Hg
(b) 60 mm Hg
(c) 90 mm Hg
(d) 110 mm Hg
10. White blood cells engulf bacteria in a process called:
(a) diapedesis
(b) phagocytosis
(c) active transport
(d) passive transport

SHORT QUESTION AND ANSWERS -
11. What are blood copurscles?
12. Write the difference between-
a) Arteries and Veins
b) Open and Closed Circulatory System
13. What is the advantage of closed Circulatory System?
14. What is double circulatory system?
15. Draw neatly labelled diagram of the following-
a) Structure of Human heart
b) Double circulation in Human

## हिंदी

- 50 मुहावरों का अर्थ लिखकर उनका वाक्य प्रयोग कीजिए। (व्याकरण पुस्तिका)
- समाचार पत्र में आए किंही तीन प्रमुख विषयों पर अनुच्छेद कीजिए। (उदाहरण - चुनाव) (व्याकरण पुस्तिका)
- हरिहर काका अनपढ़ होते हुए भी जीवन की अच्छी समझ रखते थे। अपने घर या आस-पास किसी ऐसे व्यक्ति के जीवन की घटनाओं को आधार बनाकर कहानी रचना कीजिए व कहानी का मुख्य पृष्ष बनाए। (A4)
- 5 अपठित गदयांश कीजिए। (व्याकरण पुस्तिका)


## अभ्यास पत्रिका

1. बड़े भाई साहब का जन्मसिद्ध अधिकार क्या था
(क) छोटे भाई को प्यार करना
(ख) छोटे भाई को उपदेश देना
(ग) मौज-मस्ती करना
(घ) छोटे भाई को डाँटना-डपटना और निगरानी करना।
2. लेखक की शालीनता किस बात में थी
(क) खेलने-कूदने में
(ख) मेहनत से पढ़ाई करने में
(ग) बड़े भाई के आदेश को कानून मानने में उसी उम्र में
(घ) बड़े भाई का आदेश न मानने में।
3. बड़े भाई साहब का स्वभाव कैसा था
(क) वे बहुत अध्ययनशील थे
(ख) खाने-पीने के शौकीन थे
(ग) बहुत चंचल थे
(घ) खेलने-कूदने के शौकीन थे।
4. बड़े भाई साहब दिमाग को आराम देने के लिए क्या करते थे
(क) सो जाते थे
(ख) संगीत सुनते थे
(ग) किताब पर कुत्ते-बिल्लियों के चित्र बनाने जैसी निरर्थक हरकतें करते थे
(घ) नदी के किनारे पर जाकर बैठ जाते थे।
5. कौन-सा कार्य लेखक के लिए छोोटा मुँह बड़ी बात थी’
(क) बड़े भाई साहब की रचनाओं को समझना
(ख) बड़े भाई साहब से कुछ पूछना
(ग) बड़े भाई साहब को निरर्थक कार्यों से रोकना थे
(घ) बड़े भाई साहब से तर्क-वितर्क करना।
6. "जिवै तो बौरा होइ' का आशय है
(क) जीवन नहीं रहता।
(ख) जीवित रहता है तो पागल जैसा हो जाता है
(ग) जीवित रहने पर सुखी नहीं रहता
(घ) मर जाता है
7. "विरह भुवंगम' का तात्पर्य है
(क) मन का मोह
(ख) विरह रूपी सर्प
(ग) राम का वियोग
(घ) इनमें से कोई नहीं
8. बिरही मनुष्य की स्थिति कैसी होती है?
(क) वह बहुत खुश रहता है
(ख) वह रोता रहता है
(ग) उस पर कोई उपाय असर नहीं करता
(घ) वह पागलों जैसा हो जाता है
9. राम का वियोगी कौन होता है?
(क) जो पूजा-पाठ करता है
(ख) जो राम को नहीं मानता
(ग) जो ईश्वर के अस्तित्व को मानता है
(घ) जो ईश्वर को पाने के लिए हर प्रकार का प्रयास करता है
10. कुंडलि का अर्थ है
(क) नाभि
(ख) छंद
(ग) मृग
(घ) मन
11- हरिहर काका कौन हैं?
12- गाँव में ठाकुरबारी की स्थापना किसने की थी?
13- हरिहर काका कहानी लिखने का मूल उद्देश्य क्या है?
14- स्वार्थ के लिए लोग क्या-क्या करते हैं?
15- वर्त्तमान समय में हरिहर काका जैसे लोगों को देखते हुए युवा पीढ़ी का क्या कर्तव्य होना चाहिए?

## संस्कृत

1. पढ़ाए गए अध्यायों को पुनः पढे तथा विशेष शब्दों को अभ्यास पुस्तिका में लिखकर याद करें।
2. विसर्ग और व्यंजन संधियों के नियमों को पुनः लिखें तथा अन्य माध्यमों से संधियों के 20-20 उदाहरण लिखें व समझे ।
3. घटिका का चार्ट बनाए तथा पुनः स्मरण करें।
4. अव्यय तालिका बनाकर अभ्यास पुस्तिका में 22 वाक्यों को लिखें।
5. अध्याय प्रथम से पज्चम के शब्दार्थों से एक शब्द कोश का निर्माण करें तथा हस्त निर्मित सश्चिका (कापी) बनाए ।
6. अध्याय प्रथम और तृतीय के श्लोकों को अर्थ सहित हस्त निर्मित सश्चिका (कापी) में लिखिए व याद कीजिए, इसी कार्य पुस्तिका में सन्धियों के नियम भी लिखिए ।
7. पढाए गए संस्कृत अध्यायों को बार-बार पढकर व समझकर बुद्धिकौशल को बढाएँ ।

## INFORMATION TECHNOLOGY

## Task 1

Prepare worksheet as given below and do as directed:

|  | A | B | C | D | E |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | S.No | Name | Quarter 1 | Quarter 2 | Quarter 3 |
| 2 | 1 | Anil | 751 | 789 | 760 |
| 3 | 2 | Amit | 834 | 755 | 835 |
| 4 | 3 | Ankush | 831 | 825 | 811 |
| 5 | 4 | Bhavin | 725 | 803 | 785 |
| 6 | 5 | Bhavya | 754 | 794 | 710 |
| 7 | 6 | Bharti | 700 | 812 | 703 |
| 8 | 7 | Chandani | 754 | 734 | 698 |
| 9 | 8 | Dhara | 767 | 776 | 705 |
| 10 | 9 | Dhaval | 772 | 802 | 847 |
| 11 | 10 | Gaurang | 791 | 822 | 805 |
| 12 |  |  |  |  |  |
| 13 |  |  |  |  |  |

- Create a new file in spreadsheet software and enter data for 10 salesmen.
- Add two worksheets in the file and modify the data for all 3 quarters.
- Rename all worksheets like sheet1 - 2018, sheet2 - 2019 and sheet3 2020.
- Now add one more worksheet at the end and rename as consolidated sheet.
- Now type the serial no and names as displayed, use sum function to add data for 2018, 2019 and 2020 in respective cells using consolidation.


## Task 2

Apply the subtotal and Prepare a worksheet as following :

| \|12|3 |  | A | - в | c |
| :---: | :---: | :---: | :---: | :---: |
| $1$ | 1 |  |  |  |
|  | 2 | Lesson_Id | Title | Category |
|  | 3 |  | 1 Working with functions | Computer Science |
|  | 4 |  | 2 File Handling | Computer Science |
|  | 5 |  |  | 2 |
|  | 6 |  | 5 Data handling using pandas | Informatics Practices |
|  | 7 |  | 6 Data Visualization | Informatics Practices |
|  | 8 |  | 7 Data Connectivity | Informatics Practices |
|  | 9 |  |  | 3 |
|  | 10 |  | 3 Digital Documentation | Information Technology |
|  | 11 |  | 4 Electronic Spreadsheet | Information Technology |
|  | 12 |  | 8 Employability Skills | Information Technology |
|  | 13 |  |  | $\underline{3}$ |
|  | 14 |  |  | 8 |

## Task 3

Link data and Spreadsheet

- Enter the data such as Roll no, GR NO, First Name, Last Name, Date of Birth, Father Name, Mother Name.
- Enter records for at least 15 students.
- Rename this worksheet as "Student Profile".
- Insert 3 new worksheets and rename as "Periodic Test I", "Periodic Test II" and "Periodic Test III" respectively.
- In the Periodic Test I worksheet create a reference for Roll No, First Name, and Last Name columns from Student Profile by using the keyboard.
- In the Periodic Test II worksheet create a reference for Roll No, First Name, and Last Name columns from Student Profile by using the mouse.
- In the Periodic Test III worksheet create a reference for Roll No, First Name, and Last Name columns from Student Profile as you wish.


## Task 4

Create a new file in spreadsheet software and enable sharing.

- Create a new worksheet, enter data as you wish.
- Save your worksheet with your desired name.
- Enable sharing for your worksheet.


## Task 5

Goal seek
A student is planning her goals about the marks she should attain in the forthcoming examinations in order to achieve a distinction (75\%). Assuming that the examination of each subject is for 100 marks, her marks of PT 1 and Term 1 are given as under.

|  | English | Maths | Science |
| :--- | :--- | :--- | :--- |
| PT 1 | 72 | 63 | 54 |
| Term 1 | 70 | 69 | 80 |

Find out how many marks should she obtain in term 2 to secure distinction.

