DAV SR. SEC. PUBLIC SCHOOL, JHINGURDAH PROJECT NCL

ASSIGNMENT FOR SUMMER HOLIDAY 2025-26

CLASS: IX

SUB. ENGLISH

Task.1. Elucidate the journey of the brook. Draw or create a flowchart showing the stages of the brook's journey from it's origin to where it joins the brimming river. Label all important locations mentioned in the poem (Art Integrated task) .

Task.2.Jot down all the unfamiliar words given in the first unit of MCB, and use them in sentences(Refer to the Unit-I, People) .
Task.3. Write a letter to the editor addressing the Growing Mental Health Issues among the Youth.
Task.4. Write diary entries, covering all the important events especially visits or special occasions.
Task.5. Write an article on; Grandparents are the Heart and Soul of a Family.
Task.6. Read any book of your choice and write its review.
Task.7. Access the link to study grammatical rules for accuracy and attempt all the exercises related to Tenses and Parts of Speech.
This link navigates you to a renowned book of grammar written by Raymund Murphy:
https://drive.google.com/file/d/1p7vkOjmNb2FGscyKVGTLspX3P8kq22A_/view?usp=drivesdk
This is for detailed studies:
https://drive.google.com/file/d/17TKtHLHPfYkEjkIGs2BKVMh41zgttWCZ/view?usp=drivesdk
Task.8. Visit to an Old Age Home if possible, or interview some elderly neighbors – Take interviews and present it through a PPT(based on the theme of 'How I Taught My Grandmother to Read')

SOCIAL SCIENCE:

Short Answer type questions

1-Name the southernmost point of India? Is it visible today?
2-Which is most important latitude of the country? Give reason.
3-Which is most important Longitude of the country? Give reason.
4-Why is the difference between the duration of day and night hardly felt at Kanyakumari but not so in Kashmir
5-Modern farming methods require more inputs which are manufactured in industry. Do you agree?
6-What is the working capital required by the farmers using modern farming methods?
7-What is multiple cropping?
8-How did the spreads of electricity help farmers in Palampur?
9-What amendments did Prvez Musharraf bring in the constitution of Pakistan by issuing a legal framework order
10-Pakistan under General Pervez Musharaff was a democratic country or non democratic. Give reasons.
11-Some countries are not ready to give voting rights to its citizens'. Explain.
12-The eighteenth century France witnessed the emergence of the middle class'. Who were they and what were their ideas?
13-What do you understand by the term "Reign of Terror"?

Long Answer type questions

1-Write any five features of Democratic government.
2-Write any five features of Non Democratic government.
3-How far it is correct to say that the government of PRI in Mexico was a non democratic government? Give arguments.
4-The sun rises two hour earlier in eastern parts of Arunachal Pradesh as compared to Jaisalmer in the west but the watches shows the same time. How does it happen?
5-The central location of India at the head of Indian ocean is considered of great significance. Why?
6-Describe the main features of the constitution of 1791. Mention any five points
7-What changes people witnessed everyday life after the revolution of 1789 in France?
8-Explain the various factors of production.
9-Explain the ill effects of green revolution.
10-How are the farmers in village Palampur able to grow more crops from the same land.?
Map work
On a political map of India, mention the following things.
1-The Northern Most Latitude in degrees
2-The states through which tropic of Cancer passes.
3-The Union territories of India
4-The Island groups of India lying in the Arabian sea

Biology
Class -IX

1. Write two functions each of the following cell organelles.
   a) Endoplasmic reticulum
   b) Golgi apparatus
   c) Lysosomes
   d) Mitochondria
   e) Plastids
   f) Vacuoles

2. Draw neat and labeled diagrams of :
   a) Animal cell b) Plant cell c) Prokaryotic cell

3. Draw diagrams of mitosis and meiosis.

4. Differentiate mitosis and meiosis in three points.

5. Carry out the given osmotic activity (chapter 1 - exercise question no. 9)

PHYSICS:

1. Establish equations of motion by using graphical method.
2. Solve the numerical problems of NCERT IN A4 size paper.

CHEMISTRY:

Q1. Physical state of water at 25^{o}C 0^{o}C and 100^{o}C is respectively
A. Liquid solid and gas
B. Solid liquid and gas
C. Solid gas and liquid
D. Gas solid and liquid
Q2. If temperature of a place increases then evaporation
A decreases
B increases
C. Remain same
D. None of the above
Q3 Which of the following statement is correct
A. Boiling is a bulk phenomena and evaporation is surface phenomena
B. Boiling is a surface phenomena and evaporation is a bulk phenomena
C. Boiling and evaporation both are surface phenomena
D. Boiling and evaporation are surface phenomena
Q4. When heat is constantly supplied by a burner to boiling water then the temperature of water during vaporization
A. Rises very slowly B. Rises rapidly with until steam is produced
C. First rises and then becomes constant
D. Does not rise at all
Q5.Arrange the following in order of increasing density– air ,exhaust from chimney ,honey, water ,chalk, cotton and iron
Q6. Why does a desert cooler cool better on a hot dry day ?
Q7. Define latent heat of fusion and latent heat of vaporization.
Q8.. Why is it that on increasing the wind speed the rate of evaporation increases?
Q9. Why do we say that evaporation is a surface phenomena?
Q10. Alka was making tea in a kettle suddenly she felt intense heat from the puff of steam gushing out of spout of kettle wonders whether temperature of steam was higher than that of water boiling in kettle . Comment

विषय -हिंदी

प्रश्न 1.अर्थ के आधार पर वाक्य के कितने भेद होते हैं? उदाहरण सहित स्पष्ट कीजिये|

प्रश्न 2. अनुप्रास, यमक और श्लेष अलंकार की परिभाषा लिखते हुए प्रत्येक के दो-दो उदाहरण प्रस्तुत लिखिए|

प्रश्न 3. पाठ 1 से 3 तक के कठिन शब्द छाँटकर लिखिए|

प्रश्न 4. 'दो बैलों की कथा' पाठ का सारांश अपने शब्दों में लिखिए|

प्रश्न 5. 'हेलमेट' विषय पर एक लघुकथा लिखिए |

प्रश्न 6. ए.टी.एम. कार्ड न मिलने की शिकायत संबंधी बैंक शाखा प्रबंधक को ई-मेल लिखिए |

प्रश्न 7. मित्र को कक्षा में प्रथम आने की बधाई देते हुए पत्र लिखिए|

प्रश्न 8. आप डी ए वी विद्यालय झिंगुरदा के छात्र है| विद्यालय में आपका परीक्षा प्रवेश-पत्र गुम हो गया है| इस विषय पर सूचना लिखें |

प्रश्न 9. आपके क्षेत्र में सफाई कर्मचारी के नियमित रूप से न आने के कारण बहुत गंदगी फैल गई है| इसकी शिकायत करते हुए नगर निगम के स्वास्थ्य अधिकारी को पत्र लिखिए|

प्रश्न 10. 'मेरे सपनों का भारत' विषय पर अनुच्छेद लेखन कीजिये |

I. भारत के बारे में मेरे विचार
II. सांप्रदायिकता से मुक्त उन्नत भारत
III. सुखी समृद्ध भारत

SANSKRIT:

1-प्रत्यय

गम्+क्त्वा = ... लिख्+तुमुन्= .....

स्मृ+क्त्वा =. ..... नम्+तुमुन्=.....

पा+क्त्वा =. ..... कृ+तुमुन्=.....

दृश्+क्त्वा=. ..... दा+तुमुन्=.....

2-संधि-कार्यम्-

अनु+अयः= ..... रवि+इन्द्रः =..... ने+अनम्=.....

गजानन:= .....+..... मम+एव=.....

देवर्षिः=.....+..... कमल+ईशः=.....

पौ+अनः=..... पौ+अकः=.....

3-उपसर्ग-संयोजनं वियोजनम् च

प्र+हरति= ..... अनु+गच्छति =.....

अधिकारः=.....+..... प्रहारः= .....

4-उच्चारण - स्थानानि

ग-वर्णस्य उच्चारण स्थानानि (.....) **ङ**-वर्णस्य उच्चारण स्थानानि (.....)

इ-वर्णस्य उच्चारण स्थानानि (.....) **ए**-वर्णस्य उच्चारण स्थानानि (.....)

श-वर्णस्य उच्चारण स्थानानि (.....) **प**-वर्णस्य उच्चारण स्थानानि (.....)

5-प्रश्न - निर्माणं कुरुत-

माधवः उज्जयिन्याम् अवसत्।

ब्राहमणः दारिद्रयात् अचिन्तयत्।

नकुलस्य मुखं पादाः रक्तेन विलिप्ताः।

नकुलः समीपम् आगच्छन्तं कृष्णसर्पम् अमारयत्।

6-विपरीत-पदं लिखत-

आदानम् - ..... उपसृत्य- .....

समीपम् - ..... विवेकः-.....

SUMMER VACATION (HW)
class - IX (Mathematics) - (2025-26)
chapter-1 (Number System)

Q(1) In the following equations identify whether x, y and z rational or ir-rational : (i) $x^3 = 27$ (ii) $y^2 = 7$ (iii) $z^2 = 0.16$

(2) Insert three ir-rational numbers between :
(i) $-\frac{3}{5}$ and $\frac{1}{5}$ (ii) $\frac{2}{5}$ and $\frac{3}{4}$.

(3) Write a rational and ir-rational number between $\sqrt{2}$ and $\sqrt{3}$.

(4) Express $0.\overline{38} + 1.2\overline{7}$ as a fraction in simplest form.

(5) If $z = 0.064$, then find the value of $(\frac{1}{z})^{1/3}$.

(6) Rationalize the denominator and evaluate $\frac{\sqrt{2}}{(2+\sqrt{2})}$ by taking $\sqrt{2} = 1.414$ up to three decimal places.

(7) If $a = \sqrt{2} + 1$, find the value of $(a - \frac{1}{a})^2$.

(8) Find the value of a and b if $\frac{2-\sqrt{5}}{2+3\sqrt{5}} = \sqrt{5}a + b$.

(9) Simplify : (i) $3\sqrt{45} - \frac{5}{2}\sqrt{\frac{1}{3}} + 4\sqrt{3}$ (ii) $\sqrt{\frac{\sqrt{20}+\sqrt{11}}{\sqrt{20}-\sqrt{11}}}$

(10) Prove that $\left(\frac{x^l}{x^m}\right)^{\frac{1}{lm}} \left(\frac{x^m}{x^n}\right)^{\frac{1}{mn}} \left(\frac{x^n}{x^l}\right)^{\frac{1}{nl}} = 1$.

(11) Represent $\sqrt{3}$, $\sqrt{10.5}$ on the line.

chapter-2 (Polynomials)

(12) If -1 is a zero of the polynomial $p(x) = ax^3 - x^2 + x + 4$, then find the value of a.

(13) If $p(x) = 5x^2 - 4x + 5$, find $p(1) + p(-1) + p(0)$

(14) Find the value of k, if $(x+k)$ is the factor of the polynomial $x^3 + kx^2 - 2x + k + 5$.

(15) Factorise : (i) $a^4 - 16b^4$ (ii) $a^3 - 8b^3 + 1 + 6ab$
(iii) $3\sqrt{3}a^3 + 8b^3 - 27c^3 + 18\sqrt{3}ac$ (iv) $2x^2 - 7x - 15$

(16) If $a+b+c = 5$ and $ab + bc + ca = 10$, then prove that $a^3 + b^3 + c^3 - 3abc = -25$.

(17) If $\frac{x}{y} + \frac{y}{x} = -1$ $(x, y \neq 0)$ then find the value of $x^3 - y^3$.

(18) If $x^2 + \frac{1}{x^2} = 66$, find the value of $x^3 - \frac{1}{x^3}$.

(19) Without finding the cubes, factorise: $(x-2y)^3 + (2y-3z)^3 + (3z-x)^3$.

(20) Find the values of a and b so that $(x+1)$ and $(x-1)$ are factors of $x^4 + ax^3 + 2x^2 - 3x + b$.

Artificial Intelligence:

thon Practical Questions

S. No.	Program

1.	To print personal information like Name, Father's Name, Class, School Name.
	`Name="Angelina"`
	`FName="Robert"`
	`Sclass=9`
	`Sch_Name="St. Joseph"`
	`print("***PERSONAL INFORMATION***")`
	`print("Student Name : ",Name)`
	`print("Father's Name : ",FName)`
	`print("Class : ",Sclass)`
	`print("School Name : ",Sch_Name)`
	Output:
	PERSONAL INFORMATION
	Student Name : Angelina
	Father's Name : Robert
	Class : 9
	School Name : St. Joseph

2	To print the following patterns using multiple print commands:
	a) * b) ****
	** ***
	*** **
	**** *
	Output:
	a)
	`print("*")`
	`print("**")`
	`print("***")`
	`print("****")`
	b)
	`print("****")`
	`print(" ***")`
	`print("  **")`
	`print("   *")`

3	To find square of number 7
	`N=7`
	`print("Square of ",N, " is : ",N**2)`
	Output:
	`Square of  7  is : 49`

S. No.	Program

4	To find the sum of two numbers 15 and 20.
	`N1=15`
	`N2=20`
	`print("The sum of two numbers is : ",N1+N2)`
	Output:
	The sum of two numbers is : 35

5	To convert length given in kilometers into meters.
	`Length=2.5`
	`print("Length given in kilometers is : ",Length," kms")`
	`print("Length converted in meters is : ",Length*1000," meters")`
	Output:
	Length given in kilometers is : 2.5 kms
	Length converted in meters is : 2500.0 meters

6	To print the table of 5 up to five terms.
	`N=5`
	`print("The table of 5 upto 5 terms are: ")`
	`print(N,"×",1,"=",N*1)`
	`print(N,"×",2,"=",N*2)`
	`print(N,"×",3,"=",N*3)`
	`print(N,"×",4,"=",N*4)`
	`print(N,"×",5,"=",N*5)`
	Output:
	The table of 5 upto 5 terms are:
	5 × 1 = 5
	5 × 2 = 10
	5 × 3 = 15
	5 × 4 = 20
	5 × 5 = 25

7	To calculate Simple Interest if the principle_amount = 2000 rate_of_interest = 4.5 time = 10
	`P=2000;R=4.5;T=10`
	`SI=(P*R*T)/100`
	`print("Simple Interest is : ",SI)`
	Output:
	Simple Interest is : 900.0

8	To calculate Area and Perimeter of a rectangle
	`Length=int(input("Enter Length : "))`
	`Breadth=int(input("Enter Breadth : "))`
	`print("Area of Rectangle is : ",Length*Breadth)`
	`print("Perimeter of Rectangle is : ",2*(Length+Breadth))`
	Output:
	Enter Length : 10
	Enter Breadth : 20
	Area of Rectangle is : 200
	Perimeter of Rectangle is : 60

S. No.	Program

9	To calculate Area of a triangle with Base and Height
	`Base=int(input("Enter Base : "))`
	`Height=int(input("Enter Height : "))`
	`print("Area of Triangle is : ",(1/2)*Base*Height)`
	Output:
	Enter Base : 10
	Enter Height : 15
	Area of Triangle is : 75.0

10	To calculating average marks of 3 subjects
	`Eng=float(input("Enter Eng Marks : "))`
	`Maths=float(input("Enter Maths Marks : "))`
	`Science=float(input("Enter Science Marks : "))`
	`print("Average of 3 subjects is : ",round((Eng+Maths+Science)/3,2))`
	Output:
	Enter Eng Marks : 90
	Enter Maths Marks : 95
	Enter Science Marks : 87
	Average of 3 subjects is : 90.67

11	To calculate discounted amount with discount %
	`Amt=int(input("Enter an Amount : "))`
	`Discount=int(input("Enter Discount : "))`
	`print("The discounted amount is : ",Amt-Discount)`
	`print("The discount % is : ",(Discount/Amt)*100)`
	Output:
	Enter an Amount : 100
	Enter Discount : 24
	The discounted amount is : 76
	The discount % is : 24.0

12	To calculate Surface Area and Volume of a Cuboid
	`Length=int(input("Enter Length : "))`
	`Breadth=int(input("Enter Breadth : "))`
	`Height=int(input("Enter Height : "))`
	`Volume=Length*Breadth*Height`
	`print("Volume of Cuboid is : ",Volume)`
	`Surface_Area=2*((Length*Breadth)+(Breadth*Height)+(Length*Height))`
	`print("Surface Area of Cuboid is : ",Surface_Area)`
	Output:
	Enter Length : 10
	Enter Breadth : 8
	Enter Height : 5
	Volume of Cuboid is : 400
	Surface Area of Cuboid is : 340

S. No.	Program

13	Create a list in Python of children selected for science quiz with following names- Arjun, Sonakshi, Vikram, Sandhya, Sonal, Isha, Kartik. Perform the following tasks on the list in sequence-
	a) Print the whole list
	b) Delete the name "Vikram" from the list
	c) Add the name "Jaya" at the end
	d) Remove the item which is at the second position.
	`Names=["Arjun", "Sonakshi", "Vikram", "Sandhya", "Sonal", "Isha", "Kartik"]`
	`print(Names)`
	`Names.remove("Vikram")`
	`print(Names)`
	`Names.append("Jaya")`
	`print(Names)`
	`Names.pop(1)`
	`print(Names)`
	Output:
	['Arjun', 'Sonakshi', 'Vikram', 'Sandhya', 'Sonal', 'Isha', 'Kartik']
	['Arjun', 'Sonakshi', 'Sandhya', 'Sonal', 'Isha', 'Kartik']
	['Arjun', 'Sonakshi', 'Sandhya', 'Sonal', 'Isha', 'Kartik', 'Jaya']
	['Arjun', 'Sandhya', 'Sonal', 'Isha', 'Kartik', 'Jaya']

14	Create a list num=[23,12,5,9,65,44]
	a) Print the length of the list
	b) Print the elements from second to fourth position using positive indexing
	c) Print the elements from position third to fifth using negative indexing
	`L1=[23,12,5,9,65,44]`
	`print(len(L1))`
	`print(L1[1:4])`
	`print(L1[-4:-1])`
	Output:
	6
	[12, 5, 9]
	[5, 9, 65]

15	Create a list of first 10 even numbers, add 1 to each list item and print the final list.
	`L1=[]`
	`for x in range(2,21,2):`
	`  L1.append(x)`
	`print(L1)`
	`for i in range(len(L1)):`
	`  L1[i]+=1`
	`print(L1)`
	Output:
	[2, 4, 6, 8, 10, 12, 14, 16, 18, 20]
	[3, 5, 7, 9, 11, 13, 15, 17, 19, 21]

S. No.	Program

16	Create a list List_1=[10,20,30,40]. Add the elements [14,15,12] using the extend function. Now sort the final list in ascending order and print it.
	`List_1=[10,20,30,40]`
	`List_1.extend([14,15,12])`
	`List_1=sorted(List_1)`
	`print(List_1)`
	Output:
	[10, 12, 14, 15, 20, 30, 40]

17	Program to check if a person can vote or not.
	`Age=int(input("Enter Age : "))`
	`if Age>=18:`
	`  print("The person can vote")`
	`else:`
	`  print("The person cannot vote")`
	`  print("Wait for ",18-Age, "years")`
	Output:
	Enter Age: 18
	The person can vote
	Enter Age: 15
	The person cannot vote
	Wait for 3 years

18	To check the grade of a student
	`marks=float(input("Enter marks out of hundred:\n"))`
	`if 90<=marks<=100:`
	`  print("Grade is A")`
	`elif 75<=marks<=89.9:`
	`  print("Grade is B")`
	`elif 60<=marks<=74.9:`
	`  print("Grade is C")`
	`elif 45<=marks<=59.5:`
	`  print("Grade is D")`
	`elif 33<=marks<=44.9:`
	`  print("Grade is E")`
	`elif 0<=marks<=32.9:`
	`  print("Grade is F")`
	`else:`
	`  print("Invalid Marks")`
	Output:
	Enter marks out of hundred:
	68
	Grade is C

S. No.	Program

19	Input a number and check if the number is positive, negative or zero and display an appropriate message
	`N=int(input("Enter a number: "))`
	`if N<0:`
	`  print(N," is a -ve number")`
	`elif N==0:`
	`  print(N," is entered")`
	`else:`
	`  print(N," is a +ve number")`
	Output:
	Enter a number: 5
	5 is a +ve number

20	To print first 10 natural numbers
	`for i in range(1,11):`
	`  print(i,end="!")`
	Output:
	1!2!3!4!5!6!7!8!9!10!

21	To print first 10 even numbers
	`for i in range(1,11):`
	`  print(2*i)`
	Output:
	2
	4
	6
	8
	10
	12
	14
	16
	18
	20

22	To print N odd numbers
	`N=int(input("Enter the term : "))`
	`for i in range(1,N+1):`
	`  print(2*i-1,end=",")`
	Output:
	Enter the term : 7
	1,3,5,7,9,11,13,

23	To print sum of first 10 natural numbers
	`S=0`
	`for i in range(1,11):`
	`  S+=i`
	`print("The sum is ",S)`
	Output:
	The sum is 55

24	Program to find the sum of all numbers stored in a list
	`S=0`
	`for i in [1,2,3,4,5]:`
	`  S+=i`
	`print("The sum is ",S)`
	Output:
	The sum is 15