SOMERVILLE SCHOOL Holiday Home Work CLASS X (2024-2025)

S.NO	SUBJECT	DETAILS
1.	ENGLISH	Create a recipe booklet inspired by the local cuisine of
		Andaman & and Nicobar Islands /Lakshadweep Islands.
		Include at least four recipes.
		Provide information about ingredients (special herbs and
		plants) used in the local cuisine and mention their benefits
		to the human body.
2.	HINDI	
		विज्ञापन रचना और अभ्यास- पत्र (Advertisement and
		Worksheet)
3.	MATHEMATICS	Worksheet
		Art Integration Activity
4.	CHEMISTRY	Workshoot
		worksheet
	PHYSICS	Worksheet
	BIOLOGY	Worksheet
5	SOCIAL SCIENCE	
З.	SUCIAL SCIENCE	PROJECT WORK.
		Every student has to compulsorily undertake any one project among the
		following topics.
		Consumer Awareness
		OR
		Social Issues
		OR
		Sustainable Development
		The overall objective of the 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. Students are expected to apply the
		Social Science concepts that they have learnt over the years in order to
		prepare the project report.
		DETAILS OF THE TOPIC GIVEN: DO ANY ONE OF THE
1		

		1. SOCIAL ISSUES
		(Choose any one social issue such as - Unemployment, Gender Equality, Illiteracy, Safety and Well-being of the citizens, Social evils like Dowry, Female Foeticide, Child Marriage etc.) 2. CONSUMER AWARENESS
		Consumer Exploitation- Why and How?, Consumer Movements, Consumer Rights, Duties of Consumer (Jago Grahak Jago)
		3. SUSTAINABLE DEVELOPMENT
		Meaning/ Introduction, Need, Present status of India, Ways to conserve – Govt. Efforts, Under SDG Plan and role of students, Conclusion. (Students may choose any one Sustainable Development Goal (SDG's) given by UNO where you can contribute as an individual in the society.) General Instructions:
		1. It should be a well-researched handwritten project on an A4 size sheet. 2. Project should be summed up in 10-15 pages
		3. The project must have a Title/Cover page, Index, Acknowledgement, Topic wise Headings and sub-headings, Conclusion and Bibliography.
6	CANCEDIT	4. It must include relevant pictures, news clippings, facts and figures.
0.	SANSKKII	& Art Integration Activity
7	ARTIFICIAL INTELLIGENCE	Revise Unit 1 and 2 Read Unit I ES Communication skills and go through notes attached. Do the Python Programs given in the attached worksheet, on either Jupyter or Python IDLE and take the print out of code of each program with their output for the Report file.
8	INFORMATION TECHNOLOGY	Revise Unit -I SSS Digital Documentation. Complete assignment sheet. Read Unit I ES Communication skills and go through notes attached.
		Start working on PROJECT WORK/FIELD VISIT Any Interdisciplinary Real World Case Study to be taken. Summarized data reports of the same can be presented in base. Input should be taken using forms and output should be done using reports using base. Documentation of the case study should be presented using writer.

कक्षा-दसवीं-विषय-हिंदी-ग्रीष्मावकाश कार्य-2024-2025

क) लक्षद्वीप में पर्यटन को बढ़ावा देने के लिए आकर्षक विज्ञापन 50-60 शब्दों में A4 शीट पर बनाइए ।

<u>अभ्यास कार्य</u>

ख) दिए गए समस्त पदों का समास विग्रह करके भेद का नाम लिखिए -

- ।) प्रधानाचार्य
- ॥) लंबोदर
- III) रातोंरात
- ।∨) ग्रामगत
- V) भवसागर

ग) दिए गए समास विग्रह का समस्त पद बनाकर भेद का नाम लिखिए -

- पढ़ने के लिए शाला
- ॥) चार राहों का समूह
- III) देह रुपी लता
- ।)) पथ से भ्रष्ट
- V) बिना राह के

घ) रेखांकित पदबंध के भेद का नाम लिखिए -

- वे माँ से कहानी सुनते रहते हैं ।
- ॥) <u>मेरे पडोस वाले</u> भाई साहब आज जा रहे हैं।
- III) <u>जीतने वाले खिलाड़ी</u> इसी शहर के हैं।
- IV) स्वह-स्वह दौड़ना अच्छा होता है ।
- v) <u>शोर करने वाले तम</u> आज शांत क्यों हो ?

HOLIDAY HOMEWORK WORKSHEET CLASS- X

Q1: Solve for x and y 37x + 43y = 123, 43x + 37y = 117Q2: Solve the following system of equations graphically for x and y : 3x + 2y = 12; 5x - 2y = 4Find the co-ordinates of the points where the lines meet the y-axis and find area of the triangle formed . Q3: If the roots of the equation $(c^2 - ab) x^2 - 2(a^2 - bc) x + b^2 - ac = 0$

in x are equal , then show that either a = 0 or $a^3 + b^3 + c^3 = 3abc$.

Q4: Two numbers are in the ratio 2 : 3 and their LCM is 180. What is the HCF of these numbers?

Q5: For what value of p will the following system of equations has no solution (2p - 1) x + (p - 1) y = 2p + 1; y + 3x - 1 = 0

Q6 : Abdul travels 300 Km by train and 200 km by taxi, it takes him 5 hours 30 minutes, But if, he travels 260 km by train and 240 km by taxi, he takes 6 minutes longer. Find the speed of the train and that of taxi.

Q7: A shopkeeper has 120 litres of petrol, 180 litres of diesel and 240 litres of kerosene. He wants to sell oil by filling the three kinds of oils in tins of equal capacity. What should be the greatest capacity of such a tin?

Q8: Find the greatest number of 6 digits exactly divisible by 24, 15 and 36

Q9: The sum of two digit number and the number formed by interchanging the digits is 132. If 12 is added to the number, the new number becomes 5 times the sum of the digits. Find the number?

Q10: A man sold a chair and a table together for Rs. 12000 gaining 10% on the chair and 15% on the table. Had he sold them for Rs. 11625, the profit % would have interchanged. Find the C.P. of each of them.

Q11: Solve for x and y: x + y = a + b, $ax - by = a^2 - b^2$

Art Integrated Project: Depict the following information about Lakshadweep Islands in the form of Bar Graph.

Literacy rate of Lakshadweep Island

- Write the information about literacy rate of Lakshadweep Islands of Men and Women in 2001, 2011 and 2021.
- Collect the data (in percentage form) and present in the tabular form.
- Represent the same in the form of triple bar graph with a title and use different colours.
- * NOTE: Solve the assignment on A-4 size white sheets

Prepare the project on A-4 size white/coloured sheets

CLASS X (2024-2025) PHYSICS HHW

S.	OPTICAL	Magnification	Nature of	Nature	Relative	Position	Position
NO.	DEVICE	(m)	optical	of image	size with	of image	of
			device		respect to		object
					object		
1		+1	Plane			Anywhere	
			Mirror			in front of	
						mirror	
2		-1		Real &			At C
	MIRROR			Inverted			
3		+0.25		Virtual &	Diminished		
				Erect			
4		-1.75			Enlarged		Between
							C & F
5		-1	Convex		Same sized		
			Lens				
6		-0.5				Between	Beyond
						2F & F	2F
7	LENS	+0.25		Virtual &		Between	
				Erect		infinity	
						and	
						optical	
						centre	
8		+2.5	Convex				In front
			Lens				of lens

1. Redraw the table and complete the missing information.

- 2. An object is placed at a distance of 16 cm from an optical device (mirror or lens) of focal length 8 cm. Find the position and the nature of image formed if the given optical device is:
 - i. a concave mirror
 - ii. a convex mirror
 - iii. a plane mirror
 - iv. a concave lens
 - v. a convex lens

Draw an appropriate ray diagram for each of the above 5 cases.

Class 10 Holiday Homework CHEMISTRY

I. Answer the following questions:

The following questions consist of two statements – Assertion (A) and Reason (R). Answer these questions by selecting the appropriate option given below:

- (a) Both A and R are true and R is the correct explanation of A
- (b) Both A and R are true and R is not the correct explanation of A
- (c) A is true but R is false
- (d) A is False but R is true
- (i) Assertion: The decomposition of silver nitrate is used in black and white photography.
- Reason: A decomposition reaction is an endothermic reaction.

(ii) Assertion: In the electrolysis of water, the volume of hydrogen is twice the volume of oxygen formed.

Reason: Hydrogen and oxygen are in the ratio of 1:2.

- **II.** Write balanced equations for the following statements. State physical state of all reactants and products and identify the type of chemical reaction taking place in each of the following:
- a) Copper powder is heated in a china dish.
- b) Iron metal reacts with aqueous solution of copper sulphate.
- c) Quick lime reacts vigorously with water releasing a large amount of heat.
- III. A solution of potassium chloride when mixed with silver nitrate solution, an insoluble white substance is formed. Write the chemical reaction involved and also mention the type of the chemical reaction?

IV. Identify the substance oxidised, reduced in the following reactions:

- i) $Fe_2O_3 + 3CO \rightarrow 2Fe + 3CO_2$
- ii) $CuO + H_2 \rightarrow Cu + H_2O$
- iii) $ZnO + C \rightarrow Zn + CO$

SOMERVILLE SCHOOL VASUNDHARA ENCLAVE DELHI-

CLASS-X (2024-25)

SUB-BIOLOGY

TOPIC-life Processes.

1. What are enzymes? Mention the name and function of various enzymes involved in digestion.

2. Differentiate between the following: a.photosynthesis and respiration b.aerobic and anaerobic respiration c. transpiration and translocation.

3. Draw a well labelled diagram of the heart and mention the function of i) aorta ii) pericardium iii) pulmonary vein and artery.

4. With a diagram (human respiratory system), discuss the role of alveoli in the exchange of gases.

5. Design an activity to demonstrate the process of transpiration.

संस्कृत ग्रीष्मावकाश -कार्यपत्रिका

कक्षा-दशमी

*कार्यपत्रिका का प्रिंट लेकर उसी पर उत्तर लिखें |

भवान् मनोजः। भवतः विद्यालये डॉ. ए.पी.जे. अब्दुलकलाममहाभागस्य शुभागमनम् अभवत् अतः भवान् अस्मिन् विषये मित्रं राघवं प्रति पत्रं लिखति। अस्मिन् पत्रे रिक्तस्थानानि मञ्जूषायां प्रदत्तशब्दैः पूरयित्वा पत्रं पुनः लिखत।

चन्द्रलोकः

<u>(i)</u>, दिनाङ्क: ------

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प्रिय मित्र राघव!

सुमधुराः स्मृतयः।

अत्र कुशलम्, तत्रापि कुशलं <u>(ii)</u> । मित्र! मम विद्यालये गत सोमवासरे डॉ. ए.पी.जे. अब्दुलकलाममहाभागस्य <u>(iii)</u> अभवत्। सर्वे छात्राः शिक्षकाः च अत<u>ि (iv)</u> आसन्। सः सर्वान् छात्रान् जीवनस्य लक्ष्यम् निर्धारयितुं परिश्रमेण च तं प्राप्तुं <u>(v)</u> । सः अनेकानाम् वैज्ञानिकानाम् उदाहरणम् अपि प्रस्तुतम् <u>(vi)</u> । तस्य भाषणं श्रुन्वा सर्वे अतीव प्रभाविताः अभवन्। मम कृते अयम् एकः स्वर्णिमः <u>(vii)</u> आसीत्। अहम् अपि एकः <u>(viii)</u> भवितुम् इच्छामि। मित्र! त्वया मम प्रणामाः मातृपितृभ्यां निवेदनीयाः पत्रोत्तरं च <u>(ix)</u> अपेक्षितम्।

_	मञ्जूषा									
	अवसर:,	कामये, शुभा	गमनम्, उत	साहिताः,	वैज्ञानिक:,	प्रेरितवान्,	मित्रम्,	अकरोत्,	शीघ्रम्,	दिल्लीनगरतः
उत्तराणि	१- 1		२)			3)				8)
	લ)		٤)			6)				८)
	९)		१०)							

प्रश्न २ रेखाङ्कितपदेषु सन्धि सन्धिविच्छेदं वा कृत्वा लिखत-

१ त्वया स्वाध्यायं <u>नैव</u> कृतम् |

- २ सः अति+आवश्यकेन कार्येण बहिः अगच्छत् |
- **३ <u>वने+अस्मिन्</u> अधिकाः गजाः सन्ति |**

४ <u>तावत्र</u>तिष्ठताम् |

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प्रश्न ३ अधोलिखितवाक्येषु रेखाङ्कितपदं संशोध्य लिखत-
१ <u>वेदः</u> चत्वारः सन्ति | (वेदान्/ वेदे/ वेदाः/ वेद)
२ लवकुशौ वीरौ बालकौ <u>स्थः</u> | (स्तौ/ स्थ/ स्मः/ स्तः)
३ <u>सर्वाः</u> बालकाः हसन्ति | (सर्वे/ सर्व/ सर्वाणि/ सर्वै )
४ श्वः मम मित्रम् <u>आगमिष्यन्ति</u> | (आगच्छति/ आगच्छत्/ आगमिष्यति/ आगच्छन्तु )
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प्रश्न ४ अधोलिखितं नाट्यांशं पठित्वा प्रश्नानाम् उत्तराणि लिखत -

राजि एवं विचारयति सति तस्य दानशीलतां परीक्षितुं देवाधिपति' शक्रः नेत्रहीनयाचकस्य रूपं धारयित्वा तत्पुरतः अवदत्-हे " राजन्! भवतः दानवीरताम् आकर्ण्य आशान्वितः भवत्समीपम् आगतोऽस्मि । देव! रवि-शशि-तारा-मण्डलभूषितं जगत् एतत् कथमिव पश्येयम् चक्षुर्हीनः ।

l. एकपदेन उत्तरत-

- (i) राज्ञः दानवीरताम् आकर्ण्य कः आगतः ?
- (ii) शक्रः कीदृशो भूत्वा तत्र आगतः आसीत्?
- (iii) देवाधिपतिः नाम कः ?

II. पूर्णवाक्येन उत्तरत-

- (i) नृपस्य दानशीलतां परीक्षितुं कः आगतः आसीत्?
- (ii) जगत् कीदृशम् अस्ति ?
- (iii) शक्रः राज्ञः प्रति किं अवदत् ?

III. निर्देशानुसारम् उत्तरत-

- (i) 'रवि-शशि-तारा-मण्डलभूषितम्' इत्यस्य विशेषणस्य विशेष्यः अत्र अन्च्छेदे कः ?
- (ii) अस्मिन् अनुच्छेदे 'अन्धः' इत्यस्य पदस्य कः पर्यायः प्रयुक्तः ?
- (iii) 'शक्रः नेत्रहीनयाचकस्य रूपं धारयित्वा तत्पुरतः अवदत् इति। अस्मिन् वाक्ये क्रियापदस्य कर्तृपदं किम्?

उत्तराणि - ।. १)

२)

॥. १) २) ३)

III. **?**)

२)



प्रश्न ६ उचितं शब्दार्थं चिनुत-

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१ राज्ञः दानशीलतां आकर्ण्य जनाः तं देशम् आयन्ति स्म |
श्रुत्वा/ मत्वा/ प्राप्य/ विहस्य
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- अपूर्वः कोऽपि कोषः अयम् |
 निधिः/ क्रोशः/ क्रोधः/ कूपः
- कलासमन्वित गतिविधि- लक्षद्वीपस्य/ अण्डमान-निकोबारस्य भौगोलिकी स्थिति, संस्कृतया:, उत्सवानां वेशभूषायाः च विषये सचित्रं दशवाक्यानि लिखत ।
- निर्देश- गतिविधि कार्य A4 क्राफ़्ट शीट पर करना है |

ARTIFICIAL INTELLIGENCE

Do the following Python Programs on either Jupyter or Python IDLE and take the print out of code of each program with their output:

1. To calculate Area and Perimeter of a rectangle.

2. Input a number and check if the number is positive, negative or zero and display an

appropriate message.

3. Program to check if a person can vote or not.

4. A tours and travels company charges their customer as per following criteria according to

customer category. Write a program to print the charges according to Category entered.

Category	Charges
А	18000
В	15000
С	12000
D	10000

5. Write a program to input Appraisalscore, OldSalary implement an increment to the employees based on their appraisal score given in the following table. Print new salary as Old salary+Increment

Appraisal	Score Rate of Increment
0-10	3%
11-30	5%
31-50	8%
51-80	10%
81-100	15%

6. Write a program to print a multiplication table of entered number.

7. Write a program to find sum of first N numbers.

8. Write a program to factors of Number N.

9. 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-

• Print the whole list • Delete the name "Vikram" from the list • Add the name "Jay" at the end

o Remove the item which is at the second position.

10. Create a list num=[23,12,5,9,65,44]

o print the length of the list

o print the elements from second to fourth position using positive indexing

o print the elements from position third to fifth using negative indexing

11. Create a list of first 10 even numbers, add 1 to each list item and print the final list.

12. Create a list List_1=[10,20,30,40]. Add the elements [14,15,12] using extend function.

Now sort the final list in ascending order and print it.

UNIT- I ES CLASS -X

Communication Skills

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1.	Communication is the imparting or exchanging of information by speaking, writing or using some other medium and means of sending or receiving information.			
2.	TYPES OF COMMUNICATION BASED ON COMMUNICATION CHANNELS NON-VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL VERBAL			
3.	Learning objectives of Effective communication 1. Development of Interpersonal Skills 2. To express effectively & with maximum efficiency			
4.	Writing is a form of communication that allows students to put their feelings and ideas on paper, to organize their knowledge and beliefs into convincing arguments, and to convey meaning through well-constructed text. In its most advanced form, written expression can be as vivid as a work of art.			
5.	Phrases - Phrases are a group of words that work together to communicate an element of speech.			
6.	Sentences: A set of words that is complete in itself, typically containing a subject and predicate, conveying a statement, question, exclamation, or command, and consisting of a main clause and sometimes one or more subordinate clauses.			
7.	4 Types of Sentences			
	 Declarative Sentence Tells something. Ends with a period. (.) Interrogative Sentence Asks a question. Ends with a question mark. (?) 			
	 Ends with an exclamation mark. (!) Imperative Sentence Gives a command. Ends with an exclamation mark. (. or !) 			
8.	Parts of speech- A category to which a word is assigned in accordance with its syntactic functions. In English the main parts of speech are noun, pronoun, adjective, determiner, verb, adverb, preposition, conjunction, and interjection.			
9.	Article writing is the process of creating a non-fiction text about current or recent news, items of general interest or specific topics			
10.	A paragraph is a series of sentences that are organized and coherent, and are all related to a single topic.			
11.				

	A com	munication barrier is thus anything that prevents us from receiving and		
	under	standing the messages others use to convey their information, ideas and		
	thoug	hts.		
	1.	Physical Barriers – Physical barriers separate people from each other and mark territories.		
	2.	Language Barriers – Not using words another can understand will certainly stop your		
		message from being conveyed.		
	3.	Gender Barriers – Variation exists among masculine and feminine styles of communication.		
	4.	Attitudinal B arriers - as those behaviors or perceptions that are divisive in nature – the ones		
	5.	Perceptual Barriers – Different world views can create misunderstanding. People tend to		
		interpret messages from their own point of view or ideologies.		
	6.	Cultural Barriers – Ethnic, religious, and social differences can often create		
		misunderstandings when trying to communicate.		
	7.	Emotional Barriers – If one is consumed with emotion he will have difficulty in understanding		
		what is communicated.		
	Answe	r the following quiz questions-		
	1. Not	stating instructions clearly is an example of (language barrier)		
	2. Not barrier	understanding the customs or traditions of a speaker could mean there is a (cultural		
	3. Whe	, n you are overcome by your own feelings and unable to communicate well it means there is an		
		(emotional barrier)		
	4 Usin	σ slang or words that are used within your own social group is an example of a (
	cultura	l harrier)		
		may like to have your own private cabin to work in but if you are not willing to meet your team		
	face to	face it is an indication of a (nbysical barrier)		
		have an an indication of a		
	b. You have an (attitudinal barrier) if you think you are more qualified than others and are			
	7 If you have a totally different viewpoint from your team mates on the way a training programme is			
	to be planned vou have a			
12	Handli	ng Barriers to Communication		
12.	Engag	a in face to face interactions whenever possible		
	Poduc	e or eliminate distractions around you		
	Try to	assess the needs of the receiver		
	Hono	assess the liceus of the receiver.		
	Soften your tone and language			
	Sollen	ryour tone and language.		
10	Encou	rage reedback.		
13.	Descrii avoid:	bed below are some common barriers to effective communication which we must		
	1 Seco	nd guessing the sender: We do this when we are impatient with the speaker and are		
	in a hu	rry to finish the sentence for the speaker.		
	2 Stere	otyping: We often form stereotypes about those whom we know the least! Once our		
	menta	l sets are created, all our transactions are affected by these sets, preventing us from		
	effectiv	<i>v</i> e listening.		
	3 Halo	effect: This is another form of stereotyping. Based on a single characteristic we make		
	up our	mind usually positively about the other person.		
	4 Not l	istening as a status or gender issue: Studies have shown that men listen much less		
	than w	omen do. Similarly those in positions listen less to those who are lower in hierarchy.		
14	Feedba	ick is a consequence of performance. Feedback plays an important part in communication because		
	it tells	both the source and the receiver, how their message are being interpreted.		
15	Descri	ptive feedback is specific information, in the form of written comments or verbal conversations,		
	that he	Ip the learner understand what she or he needs to do in order to improve. Descriptive feedback is		
	the mo	st powerful tool for improving student learning.		
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	Specific Feedback provides detailed or specific information on what the student did well or not so well.
	General feedback on the other hand is very non-specific, such as "good job" or "you did great."
16	
	7 C's of Communication
	Completeness
	Concise
	Clarity
	Correctness
	Concreteness
	Consideration
	Courtesy