PM SHRI KENDRIYA VIDYALAYA SEC 5 DWARKA SUMMER VACATIONS HOLIDAYS HOMEWORK SESSION- 2025-26

CLASS-1

ENGLISH

Prepare a separate notebook for Holidays homework.

- 1. **(PROJECT WORK)** Prepare a picture dictionary. (On colourful A4 size sheets. Write the alphabet,it's phonic sounds and four words related to it along with pictures). https://youtu.be/WDdyJ8a3TPg?si=XhuVoFP9bV4wnli4
- 2. Write 20 page handwriting in english Holidays homework notebook.
- 3. Learn and Write phonic sounds of all alphabets five times in English holidays homework notebook. (Vidya Pravesh Booklet Page no. 3)
- 4. Learn poem "Two little hands" with actions from English book "MRIDANG"

https://youtu.be/TV_x6YUdnvg?feature=shared

- 5. Read Ch- GREETINGS from english book MRIDANG.
- 6. Do the given worksheets and paste it in English holidays homework notebook.

1.	1 10
2.	5
3.	
	$\square\square\square\square \square\square\square \square4 \square\square\square \square\square\square\square\square$
4.	2
5.	
6.	

MATHS

Instructions:

- Complete all work on clean A4 sheets.
- Do not use your Math fair notebook.

• Staple all sheets together, keep them in a folder, and submit to your Maths teacher after the holidays.

Task

- 1. Write the numbers from 1 to 100 in order.
- 2. Write the multiplication tables for 2, 3, 4, and 5.
- 3. Patterns

(a) Create five different shape patterns (e.g., $\bullet \blacktriangle \bullet \blacktriangle$...).

(b) Create five different number patterns (e.g., 2, 4, 6, 8...).

4. Shapes – Draw and label these shapes: square, rectangle, triangle, and circle.

5. Do given worksheets.

GARDENING

NOTE;

- Make a scrap file for doing the homework. (Cover it properly, you can decorate the cover page)
- 1. Plant a sapling of any plant. Take a 2-3 picture while sapling and doing care of it. Paste the photographs in scrap file.

2. Take already fallen leaves or flowers and make a creative art piece using it. Paste it in scrap file.

3. Make a garden scene of your imagination on A4 size sheet, and paste it in the scrap file.

4. Paste pictures of different gardening Tools.

CLASS-2

Dear Little Explorers,

Summer is here — bringing bright sunshine, cool breezes, and lots of happy days!

It's time to rest, play, and learn in the most exciting ways.

While you enjoy your holidays, we have prepared some fun activities for you.

This special homework will take you on a journey through creativity, nature, and discovery!

Note : <u>All subjects work should be done</u> in 3-in-one notebook. English

Read stories under a shady tree.

Paint the colors of the rainbow in your very own sky.

Grow a little plant and watch it smile at you every morning!

Sing songs, dance around, and let your imagination fly.

1.Write 10 pages handwriting in English holiday notebook. Handwriting should be neat and beautiful.

2.Do the worksheet of opposites and vowels in the holiday homework notebook.

3. Practice reading a story book everyday.

4. Learn poem bicycle.

5. Take printout of the activitiy sheets shared below enjoy learning with colouring 6. Make a card for your motherl on her special day mother's day and make her feel happy. Name:

Date:

Long Vowels Worksheet

A vowel is a speech sound	made by the vocal cords.
(a,e,i,σ,u) are the vowels	in the English language.

Directions: Complete each word with a long vowel from the vowel fist given below.

	A	£	t	0	υ
1.Ppe			13	rde	
2.:dio			14	w_de	
3.1bor			15	57f	
4pri			16	bwl	
5ble			17	si_w	
6.bby			318	m_w	
7.1_ma	6		19	<u></u> #	
8vi			20	_ak	
9qual			21	s_at	
10. l_ga			22	sual	
11. cd	e .		28	fture	

A. Find the opposite words of the following :

1.	arrival	2	hig	
3.	bright	2	buy	
ă.;	care	6.	clean	-
7	come	8.	cruel	<u></u>
9.	day	10.	fast	

B. Find out from Column III the opposites of the words in Column I and write them in column II.

	Column I	Column II	Column III
1.	ugly		sunrise
2	warm.		well
з.	arrival		lose
4	sunset		beautiful
5.	everywhere	· · · · · · · · · · · · · · · · · · ·	wide
6.	ancient	10.74	departure
7.	win'		borrow
8	narrow		cool
9.	lend	1455 C 14 1 10	modern
10.	buy	- <u></u>	now/here
11.	sharp		shallow
12,	deep		blunt

Activity

worksheets





1.अपने माता-पिता या दादा या दादी से कहानी सुनकर अपनी काँपी में लिखो ।

2 कोई 7 फल एवं सब्जियों के चित्र बनाकर नाम लिखो ।

3 आपके घर के आसपास कौन कौन से जानवर रहते हैं उनके नाम लिखिए। (कोई पांच)

4 अपनी पाठ्यपुस्तक से इ,ई,उ,ऊ,ए,ऐ,ओ,औ की मात्राओ के 5-5 शब्द लिखिए।

5 अपने परिवार के सदस्यों के नाम व उनका आपसे सम्बन्ध लिखो |

6 कोई 5 यातायात के साधनों के चित्र बनाएं ।

7 किन्ही दो जानवरों के मुखौटे बनाकर लायेंगे और उनके बारे में कुछ पंक्तियाँ याद करके आयेंगे।

8 कार्ड बोर्ड से एक सुंदर - सा घर का मॉडल बनाकर लायेंगे और घर कविता को याद करके आयेंगे |

9 प्रतिदिन पाठ्यपुस्तक या कहानी की किताब पढ़े।

10 Note :- कक्षा में करवाया गया कार्य याद करें Cycle test जून में लिया जाएगा | दिए गए प्रश्न संख्या 1 से 6 को कॉपी में करेंगे | कॉपी अलग से भी बना सकते है।

MATHEMATICS

1. Collect registration numbers of any 10 cars in your locality.

a. Write the numbers in words.

b. Write the numbers in ascending and descending order.

2. Make a model of 3 D shapes.

3. Do sums of addition and subtraction (3 digits with carry) 20 each 4. Learn and write tables 2 to 20.

5. Solve the below given worksheets.

Q1. Ordinals : Fill in the blanks

- a. R is the _____ letter in GIRL.
- b. C is the _____ letter in SCHOOL.
- c. L is the letter in VEGETABLE.
- d. Y is the _____ letter in GROCERY.

Q2. Find the missing numbers

a	, 171,			_175,	TM	
b. 159,	Cas L		163,	, 165	5,	5
c	_, 188,			, 192,	1	
d. 108,		, 111,			12	

Q3. Fill in the boxes to find the name of a juicy fruit.

- · E-fourth and nineth box
- · A-in the fifth box
- I- in the second box
- N- in the third box
- · P- in the first, sixth and seventh box
- · L-in the eighth box

-	1 1	 -	 	
	1 1			
· · · · · · · · · · · · · · · · · · ·				

Solve the problems below and then find the facts in the equation search.





	THURSD	AY FRIDAY	TUESDA
	SUNDAY	MONDAY	TURDAY
	``		.+
8. Unscramb	ole the months of the	year and write.	
IVAJARN	+	7. ARCHM	+
RYRFEBA	+	8. UJEN	+
ONREBVME	•	9. REBMETPSE	+
REDCEBM	*	10. JLUY	+
YMA	*	11. PRIAL	+
JAGTSU	+	12. RBECOOT	+
	he correct spelling.		
C. Choose th	th	30 th	48 th
C. Choose th			

<u>*Note: All subjects work should be done in 3-in-</u> one notebook.*

Class 3

Subject -English

1.Make secondary colours using primary colours as shown in the picture.Make at least 5 secondary colours on 5 different A4 size papers . Learn the spellings.



2.Make your own story booklet with 2 stories. On left side paste the picture and on the right write the sentences. You can take Idea from page-21 of your english textbook.

3. Make a picture using all the shapes mentioned in Chapter -3. (page33)

4.Make a paper bag puppet/ socks puppet .Frame your own story with dialogues and write them on a paper.

5. Use waste material from your home and make a toy / doll of your choice.

6. Write 15 page handwriting.

7. Choose any one topic from the list (shared interesting class group) and make an



MDP project.

Note: All the work should be done on A4 size paper and put it in SPS file. Write the name of your child on it with permanent marker.



- 2. _____ __ __ ___ __ __ ___ ___ __ ___ ___
- 4. 1 ... 20 tk
- 5. 10

EVS

1. Write ten lines about your visit to a Mela/ Fair/ Exhibition. (On A4 size sheet)

2. Paste Ten (10) different plant leaves and write one use about each of them. (On A4 size sheet)

3. Paste Ten (10) different flowers and write their names. (On A4 size sheet)

4. Collect 10 different seeds and write their names. (On A4 size sheet)

5. Write the names of ten (10) different festivals celebrated in India and write the special dish (food) prepared during this festival. (On A3 size sheet).

6. Make beautiful art by pulses.(on A3 size sheet) For



7.Collect leaves and flowers fallen on the ground. create different animal shapes using the collected leaves. - (On A3 size sheet)

(For reference see page no. 61)

8. Make the models of

- a. Plant and it's different parts (Roll no. 1-16)
- b. Olden means of transport (Roll no. 16-32)
- c. Modern means of transport (Roll no. 32-48)

Maths

1. Write number name from 1 to 100.

- 2. Make 3D shapes with unused cardboard and decorate them.
- 3. Prepare a colourful chart of 2D shapes (chart paper).
- 4. Write and learn table from 2 to 15.
 - 1. Practise 20 questions each on addition, subtraction, multiplication, and division .

CLASS- 4

EVS holiday homework

1. Take pictures of the community places and community helpers around your home , paste them on A4 pastel sheet and write their names and how they help us.

2. Do activity 2 (pg 20) given in your textbooks on A4 pastel sheet.

3. Visit a bank nearby you, take a picture standing in front of an ATM, paste on A4 pastel sheet and write how Banks help us in 5 lines.

4. Draw a map from your house to school and mark places like busstop hospital, park, school or other landmarks with symbols. Do on A4 pastel sheet. (idea can be taken from pg 28). Also mark directions.

5. Collect pictures of your favourite bird/wild animal and make a collage with it on A4 pastel sheet. Also write about it in a short paragraph (10 lines).

6. Collect leaves of different plants and make images by pasting them on A4 pastel sheet.

7. Visit some historical monument/zoo/village/ any other place and paste memories on A4 pastel sheet. Write the name of the place also.

8. Drink lot of liquid, eat a lot of fruits, play exciting games and have thrilling joyful holidays.

Take care of yourself and your family members by assisting them in daily chores. Practice '

All the best 👍

<u>Maths</u>

SOLVING & ABILITY TO COMPUTE PART - I

Solve the following:

1. The population of a town is 198568. Out of them 45312 are men

and 35678 are women. Find the number of children in the town.

2. A shopkeeper has 2425 boxes of 24 pencils each. How many pencils do all the boxes have in all?

3. Linda bought a coat for Rs.2265 and a saree for Rs.2150. She gave Rs.5000 to the shopkeeper. How much money did the shopkeeper return to her?

4. The cost of 21 TV sets is Rs.95844. Find the cost of one TV set. 5. A factory produces 24532 bulbs in a month. What is its annual

production?

6. There are 145968 bags of sugar, 236487 bags of wheat and some bags of rice in a godown. It the total number of bags in the godown is 450000, find the number of bags of rice.

7. A factory manufactured 483685 toys in three weeks. The production in first week was 146345 toys and in second week 138152 toys. Find the production in the third week.

8. The cost of a sofa set is Rs 9372. How much will 124 such sofa sets cost?

9. There are 86 rooms in a school. 4386 students study there. Equal number of students sits in each room?

10. 1575 students of a school want to go Agra by bus. If one bus can carry 75 students, how many buses are required to carry all the students?

11. The cost of a radio set is 1475. What is the cost of 35 such radio sets?

12. In an election, 52496 people voted for Ramesh, 44929 people for Jitender and 36824 people for Mukul in a town. If everyone voted in the town, what is the total number of voters?

13. Maria bought 96 toys priced equally for Rs12960. The amount of Rs1015 is still left with her. Find the cost of each toy and the amount she had.

Part -2

Question 1

One vegetable patch has 22 vegetables. How many total vegetables are there if there are 4 such patches?

Answer:

Question 2

If 228 honey bees of 668 fly out of the hive, how many honey bees are there now?

Answer:

Question 3

There are 21 students in the class. If each student has 4 books, how many total number of books are there in the class?

Answer:

Question 4

Rita is 12 years old and her mother is 34 years old. How many years is the difference between their ages?

Answer:

Question 5

If a lady buys 12 apples, 12 mangoes and 10 guavas, how many total pieces of fruit will she buy?

Answer:

Question 6

Harry obtained 95 marks in Math, 90 marks in English, and 92 marks in Science. How many total marks did he obtain in all subjects?

Answer:

Question 7

There were 550 passengers on a train. At the next stop, 289 passengers got off. How many passengers are there on the train now?

Answer:

Question 8

One airplane can accommodate 330 passengers. How many airplanes are required to accommodate seats for 990 passengers?

Answer:

Question 9

There are 522 birds sitting on a tree. If 129 birds fly away, how many

birds will be there on the tree?

Answer:

Question 10

If there are 4 classroom sections of third grade with 19 students in each class, how many third grade students are there in total?

Answer:

Question 11

If only 18 travellers can be seated in a bus, how many buses will be required to seat 72 travellers?

Answer:

Question 12

A city has 3 zoos. The first zoo has 213 animals, the second zoo has 68 animals and the third zoo has 177 animals. How many animals do all the zoos have in total?

Answer:

Question 13

If one forest has 178 trees. How many trees do 4 forests have?

Answer:

Question 14

One hall can accommodate 65 people. How many halls are required to accommodate 520 people?

Answer:

Question 15

There are 828 people on a ship. If 389 people disembark before the ship completes its course, how many people will reach the destination?

English holiday homework

- 1) Make your own pocket Dictionary of words with their meanings in a coloured sheet read English newspaper or story aloud for at least 10 minutes daily.
- 2) Write one page daily in cursive writing in a small notebook.
- 3) Visit any park to see the picture of nature draw and write 5 sentences.
- 4) Learn chapter number 1 and 2 from book.
- 5) Draw or paste activities that you enjoy doing in holidays in a coloured sheet.
 - 6)Draw traffic symbols or write rules on a coloured sheet.

7)Create your own bell craft refer page number 21

<u>Hindi work</u>

6 -----

2. ______

____ **___**

3. _____ ____:

4.

5. _____

6. _____ ___ ___ ___ ____

10. _____

CLASS- 5

English summer vacation holiday homework 2025-26

Dear Little Explorers,

Summer is here — bringing bright sunshine, and lots of happy days! It's time to rest, play, and learn in the most exciting ways. While you enjoy your holidays, we have prepared some fun activities for you. This special homework will take you on a journey through creativity, nature, and discovery. Build a craft with waste materials and give new life to old things. Write letters to your future self about your dreams. Plant seeds of kindness everywhere you go. Visit a park, a beach, or even your backyard — and notice the magic of nature. Create your own mini garden in a small pot. Holiday homework is not just about studies; it's about growing with joy! Take your time, enjoy each activity, and make lovely memories. Ask your parents and grandparents to join your adventures too.

1) Composition (Creative Writing) Encourage creativity and vocabulary building

If I Could Fly for a Day

2) Comprehension practice Students read a any short story/book and write:

- Main characters
- Setting

- Summary
- Their favourite part and why

3) Ways to Improve English Language Skills

- Vocabulary Jar: Learn 2 new words every day, write their meanings and make a sentence with each.
- Role Play Activity: Tto prepare a 2-minute dialogue from a story or cartoon.

3) English Diary: Maintain a daily diary entry (4–5 lines about their day). To be done in a separate diary and to decorate it.

4) Activity sheet (take printout of these two



sheets and do them)

Which use is your fire system? Why do you many pleasing 10

Gast.				
film: Marriel sector.	_	teritor of	10-000	
Bolta:				
hat				

Work of composition and comprehension to be done in the separate holiday homework notebook.

Have a safe, sunny, and super-fun vacation!

Happy Holidays, Little Stars! Summer Holiday Homework - Class 5 (EVS)

> Theme: Food and Good Habits Learn, Explore, and Have Fun!

Part 1: Tasty Tour of India!

Instructions: India is full of delicious food! Explore and answer: 1. What is your favorite food from your state?

2. Name one famous dish from:

- East India: _____ - West

India: _____ - North India: _____ - South India:

3. Draw or paste pictures of any 2 traditional Indian dishes. 4. What special food is made in your home during festivals?

Part 2: Clean Hands, Healthy Tummy!

Instructions: Answer these questions about keeping clean: 1. What should you do before eating food?

2. Write 2 things you should do after finishing your meal.4. Write a short poem or slogan on "Clean Eating is Happy Eating!" 5. Make a 'Healthy Me' poster showing how you stay clean during meals (Draw pictures).

Part 3: Don't Waste, Just Taste!

Instructions: Think and write:

1. Why should we not waste food? Write 2 reasons.

2. What do you do with leftover food at home?

3. Write one way you and your family can save food daily. 4. Design a badge or sticker that says "I Don't Waste Food!" Weekly Food Record

Instructions: Keep a record for a week of the food you had for breakfast, lunch, and dinner. Fill the table below.

Day	Breakfast	Lunch	Dinner
Davi	Poha and	Rice, dal, and potato curry	Roti, paneer, and salad
Day 1			
Day 2			
Day 3			
Day 4			
Day 5			
Day 6			
Day 7			

Questions Based on Your Weekly Food Record

1. On which day did you eat the healthiest meal?

2. Was there any day when you ate outside

food? What was it? 3. Did you eat any junk food

this week? If yes, what was it?

4. Which meal (breakfast, lunch, or dinner) do you like

the most? 5. Did you waste any food this week? How

can you avoid it next time? 6. What did you learn

about your eating habits from this activity?

Bonus Fun Activity!

Photo Challenge: Take a photo helping your parents in the kitchen or while setting the dining table. Paste it here or in your scrapbook. Art Time: Create a colorful menu card with healthy and tasty meals for one day! Class 5



Class 5 Maths summer vacation holiday homework 2025-26

Click on the link given below.

https://drive.google.com/file/d/1L5qGHX0brQjqg2en3QBoj0 0wO6GBcihK/vi ew?usp=drivesdk Dear children there are 16 pages in this link, you have to take printouts of pages 1 to 13 and solve the questions, pages 14 to 16 to be solved in notebook.

CLASS-6

- 1. ____ ___

- $3. \qquad \square \square \square = \dots + \dots + \dots + \dots + \dots$

- 6. ____ + + + + + +

1. Complete the following number sequences:

(a) $1 + 3 + 5 + ___ + 9 + 11 = ____.$ (b) $1 + ___ + 3 + 4 + 3 + 2 + 1 = ____.$ (c) $1 + 2 + 3 + ___ + 5 + ___ + 7 + + 11 + ___ + + 7 + ___ + 5 + 4 + 3 + 2 + 1 = 121$

- 2. Identify the patterns and write the next three numbers to complete the given patterns.
 - (a) 1, 3, 6, 10, 15,,,
 - (b) 1, 4, 9, 16, 25, ..., ...,
 - (c) 1, 8, 27, 64, 125, ..., ...,
- 3. Represent first 5 centered hexagonal numbers pictorially.
- 4. Can you find the pattern and fill in the missing numbers?



5. Complete the pattern.



6. How many lines can pass through (Draw figure also)

(i) one given point? (ii) two given points?

(iii) three non-collinear points?

7. <u>Activity based questions:</u> Mrs. Sushma, a maths teacher is guiding her class, to identify angles in English alphabets, like: three acute angles and two obtuse angles in A, two equal acute angle in letter N and so on.



Based on above information answer the following questions: (Draw figure Also)

- (a) Which letter represents only a right angle?
- (b) Which two letters represent only four right angles?
- (c) Which letter represents only two straight angles?
- 8. Use a protractor to draw angles having the following degree measures:
- a. 120° (b) 135° (c) 45° (d) 200° (e) 90° (f) 180° (g) 70°

MCQ

- 1. A protractor is used to draw and measure
 - (a) angles (b) line segments (c) triangle (d) none of these
- 2. Which of the following angles is the measure of an obtuse angle?
 (a) 60° (b) 120° (c) 90° (d) 30°
- 3. The angle measure for one complete revolution is (a) 180° (b) 360° (c) 90° (d) none of these

4. Which of the following has two end points?(a) Ray (b) Line (c) Line segment (d) None of these5.

A line segment has two end points and a line has _____ end points. (a) 1 (b) 2 (c) Zero (d) None of these

ENGLISH

All these questions will be written in English Notebook

Q.1.Passage-

Once a father asked his daughters, "What is the sweetest thing in the world?" 'Sugar!' said the elder daughter. 'Salt', said his younger daughter. The father thought that his younger daughter was making fun of him, but she stuck to her opinion. The father was obstinate, and so was his daughter. Aquarrel broke out between them over this petty matter, and he drove her out of the house saying, "If you think that salt is sweeter than sugar, you had better find another home where the sugar is more to your taste.'

It was a beautiful summer night. The pretty maiden sat singing sadly in the forest around her father's cottage. A young prince, who had lost his way while hunting the deer, heard her voice. He came to her to ask the way. He was struck by her beauty and took her to his beautiful palace and married her.

The bride invited her father to the wedding feast, without telling him that she was his daughter. Al the dishes were prepared without salt. The guests began to complain as they ate the tasteless food. 'There is no salt in the meat!' they said angrily.

'Ah,' said the bride's father. "Salt is truly the sweetest thing in the world! But when my daughter said so, I turned her out of my house. If only I could see her again and tell her how sorry I am!"

Drawing the bridal veil aside from her face, the happy girl came to her father and kissed him. Now properly salted dishes were brought in and all the guests were satisfied.

Answer the following in one or two sentences each:

1 What question did the father ask his daughters?

- 2. What answers did the daughters give?
- 3. What did the father do in anger?

4. How the dishes of the wedding feast were prepared? Find words from the passage which mean the same as:

(i) Beautiful: -

(i) Glad: -

WRITING-

Q.2. With the help of the given outlines, develop readable stories:

The mice in a house_____afraid of a cat__held a meeting______one proposes to toe a bell round the cat's neck_____all agree_____who is to bell the cat? No mouse offers_the cat appears_all run away.

Q.3.You have lost your water bottle somewhere in school. Write a notice on LOST giving all the necessary details.

Q.4. You have found a pencil box in computer lab. Write a notice on FOUND giving all the necessary details.

Q.5. Write a story on the title "God help those who help themselves".

Q.6.Write paragraphs on-

1. My hobby

Q.7.Write an application to the principal of your school requesting for three days sick leave.

Q.8.Complete the following sentences using has or have. (5 M)

- a. I a pet dog.
- b. She a sports car.
- c. They a big house in the city.
- d. My brother and I a toy train.
- e. My brother a blue shirt.

Social science

A MULTI DISCIPLINARY PROJECT Theme food

1.On the political map of India write the names of different food items prepared in different states.

2. Paste the pictures of food items prepared in different states separately

3. Write the names of staple foods of different states and also find out why they are the staple food of those states.

4. Make a list of healthy food items and state their benefits

5.Make a list of unhealthy food items and state their disadvantages **For MDP make a file-**

1. Cover the file neatly and write your name and roll number on it

2 The first page of your file will be an index page.

B.On the political map of India, all the states with their capitals and mark all the 8 union territories.

C. COMPLETE THE WORK OF BOTH THE CHAPTERS IN YOUR NOTEBOOK TAUGHT IN CLASS .

D.Read all the chapters well and mark the difficult areas. Read one/ two chapters in advance.

Subject-SCIENCE

NOTE-

- Do it in your science HW notebook only
- Avoid the use of thermocol
- Click your photos while doing your activity 5(sprouts) and paste it.

1)Collect pictures of different landforms from newspaper/magazine/internet sources and past them in your notebook. Write one or two sentences on each one of these landforms next to the picture.

2) Make a model of Solar System

3)Visit a nearby tailoring shop. Collect cuttings of fabrics leftover after stitching. Feel and touch each piece of fabric. Now , label some of the fabric as cotton, silk, wool, or synthetic after asking for help from the tailor.

4)Project

I)Collect 10 sample of plant source (dry) of food.

II)Paste and label them . Write the name of their plant source

5) Prepare some sprouts of moongas. Wash them in water every day and drain all the water. Let them grow for a week until the whole of the seeds grow into young plants. Measure the lengths of the sprouts everyday using a string. Take care that they do not break. Prepare a bar graph of the number of sprouts having lengths in different ranges.

6)Make a list (with pictures, when possible) of food items generally taken by people of different

CLASS-7

3. ____ ____

5. _____ __ __ ___ ___ ___ ___

6. CONCERCIPIENT CONTRACTOR CONT

7. COME CONTRACT OF CONTRACT CONTRACT, CONTRACT CONTRACT CONTRACT CONTRACT, CONTRACT CONTRACT CONTRACT, CONTRACT CONTRACT, CONTRACT CONTRACT, CON

_____ **_____ (_____**

____ A 4 ___ A ___

SANSKRIT

8.__ __

SCIENCE

Q1. Read chapter THE EVER –EVOLVING WORLD OF SCIENCE from your science book.

- 1. Write 10 new words you learned and their meanings.
- 2. Write a short paragraph on what you liked the most in the chapter.

Q2. Choose 5 items from your kitchen (e.g., salt, lemon, vinegar). Test with a Natural Indicator like red cabbage, turmeric and rose extract etc. and one property of each and their use write the predication, observation, and conclusion.

Q3 ANSWER THE FOLLOWING QUESTION.

- 1. Name one recent scientific invention that you find interesting and explain why.
- 2. How has science helped in the field of medicine?
- 3. Why is it important for science to keep evolving?
- 4. What is base? Name any two bases. How can you test the presence of a base in a substance?
- 5. What is an acid? Name any two acids how can you test the presence of an acid in a substance?
- 6. What are neutral salts, acidic salts and basic salt?
- 7. What do you think the world would be like if science stopped evolving?

Q4. Complete your MDP work

ENGLISH

- Revise all the lessons that have been taught in the class.
- Write short paragraphs on the following topics in about 100 words.
 - a. Healthy Eating for a Healthy Life

- b. The Importance of Reading
- c. Plant Trees, Save the Earth
- Prepare a comic book of five to six pages based on the topic "SAVE WATER".
- Read English newspaper daily and write two new words with their meanings.
- Write three forms of the following words See, eat, write, read, do, build, make, run, throw, catch, sell, buy, play, cut, put, sing, grow, pay, leave, come.
- Write opposite of the following words Advantage, honest, pure, profit, huge, increase, high, regular, beautiful, forget, sharp, intelligent, interesting, possible, tall, enemy, beginning, difficult, ordinary, courage
- What is noun? Write all Kinds of noun with examples.
- Write 20 pages of handwriting.

SUBJECT – MATHS

[1] Fill in the blanks :

- (a) The smallest 5 digit numeral =
- (b) The successor of 99,999 =
- (C) One lakh = Thousands
- (d) 3,00,000 + 8,000 + 50 + 1 =
- (e) The predecessor of 1,00,00,000 =
- (f) 1 million = Lakhs
- (g) 1 crore = millions
- (h) 100 million = Crores.

[2] Write each of the numbers given below in words. Write their number names in both Indian and International system using commas :

- (a) 481659(b) 48629183(c) 345629019(d) 900009(e) 520004(f) 1011001
- (3) Write the numerals using commas:
- (a) Ninety three lakh six thousand six.
- (b) Thirteen lakh six thousand five.
- (c) One hundred one billion seventeen thousand five hundred ninety.
- (d) Eight crore eighty.
- (e) Nine hundred million nine thousand nine.

(f) Eighty one lakh thirty six thousand two hundred ninety six

(g) Thirty four million two hundred three thousand five hundred one

(h) Fourteen crore one lakh two.

(i) Fifty crore forty nine lakh thirty five thousand ten.

(j) Nine crore nine.

[4] Form the smallest 8 – digit number using the digits 7, 5, 0, 1, 2, 9, 8 and 4. Also write the number name of the numeral formed both in Indian System and in International System.

[5] Tick the correct answer :

(a) The place value of 6 in the number 2,65,431 is –

(i) Thousand	(ii) Ten thousand

- (iii) Sixty thousand (iv) Six hundred thousand
- (b) The difference between the place values of 2 and 4 in the number 12, 34, 576
- (i) 2,00,000 (ii) 2,04,000 (iii) 4,000 (iv) 1,96,000
- (c) The digit at the ten million place in the number 735,896,545 is -
- (i) 7 (ii) 3 (iii) 5 (iv) 2

(d) 60 million = crores

- (i) 6 crores (ii) 60 crores
- (iii) 600 crores (iv) 10 crores
- (e) The sum of the greatest 4 digit number and the smallest 6 digit number is –
- (i) 1099999 (ii) 109999 (iii) 900000 (iv) 199999
- (f) Digit in the ones place of the product of 783 and 896 is –
- (i) 9 (ii) 2 (iii) 8 (iv) 6
- [6] Compare and write '<' , '>' or ' = ' :
- (a) 30 thousand 3 lakhs
- (b) 500 lakhs 5 million
- (c) 800 thousand 8 million
- (d) 640 crore 60 billion

[7] A calculator has only +10,000 and +100 buttons. Write expression describing the number of button clicks to be made for the following numbers:

(a) 20,800

- (b) 92,100
- (c) 1,20,500
- (d) 65,30,000
- (e) 70, 25,700

[8] Using all digits 0 - 9 exactly once (the first digit cannot be 0) to create a 10 - digit number, write the -

- (a) Largest multiple of 5
- (b) Smallest even number

CASE STUDY BASED QUESTIONS
The square numbers are the numbers 1, 4, 9, 16,... that can be arranged in the shape of a square. The triangular numbers are the numbers 1, 3, 6, 10,....that can be arranged in the shape of a triangle. The first few triangular and square numbers are illustrated in Figure





Question 2. How many such numbers are there?

[0]

Two friends Anjali and Ashish are playing a board game. The rules are: If ODD number turns up on the dice, they will move their token backward (negative side) and if EVEN number appears on the throw of dice, they will move the token forward (positive side). The game consists of 10 moves and the winner will be the one whose token is on the greater number.



The following table shows their first 10 outcomes:

Anjali	4	1	2	6	3	4	2	5	6	3	
Ashish	1	2	6	4	1	4	5	4	4	2	

Question 1. Who will win the game, Anjali or Ashish?

Question 2. If the forward/backward rules were reversed, what will be the final positions of both Anjali and Ashish?

ACTIVITIES :

(a) Prepare one crossword puzzle with integers.

(b) Make a Rangoli Design using geometrical shapes.

SOCIAL SCIENCE

Topic: Exploring Our World and Societies

Part A: Research and Discovery

1. Local Exploration:

Research a significant geographical feature or a local craft/occupation in or around your city/town (Kanpur).

Write a short report on its key characteristics, importance to the region, and any changes it has undergone over time (1-2 pages).

2. Mapping Skills:

Draw an outline map of India and mark:

Major physical features (mountains, rivers, plateaus).

Different climate zones.

Part B: Creative Expression

3. Chart Creation:

Create a chart illustrating the different layers of the Earth's atmosphere or the different types of rocks and minerals.

Include brief descriptions and visuals for each category.

4. Storytelling:

Write a short story (150-200 words) imagining life in a different geographical region of India (e.g., a desert, a coastal area, a mountainous region). Focus on the daily life, challenges, and adaptations of the people living there.

Part C: Understanding Governance and Society

5. Understanding Local Government:

Research the structure and functions of your local municipal corporation or panchayat.

List three important functions they perform for the community.

6. Civics Reflection:

Think about the importance of rules and laws in society.

Write a short paragraph explaining why rules are necessary for a well-functioning community (100-150 words). Provide an example from your daily life.

Part D: Fun and Interactive Learning

7. Interview a Professional:

Talk to someone who works in a profession related to geography or social studies (e.g., a teacher, a local historian, someone working in environmental conservation).

Write a brief summary (100-150 words) of what you learned about their work and its relevance. 8. Quiz Time:

Prepare 5 quiz questions based on the topics covered in your Social Science class this year (e.g., types of government, major historical events, geographical concepts).

CLASS-8

HINDI

- 7. ___ 10 _____,10 ____, 10 ____ ,10 ____ ,10 ____ ___
- - 1. ____ ____
 - 2. ____ ____
 - 3. _____ _ _ ___ _ _ ___

- 11. _____ (_____ (_____)

- -----

SANSKRIT

ग्रीष्मकालीन अवकाश गृहकार्य (2025-26)

कक्षा 8 वीं

1. कोई 3 अकारान्त पुल्लिंग शब्द रूप लिखिए।

जैसे : राम, बालक, देव ।

2 कोई 3 आकारान्त स्त्रीलिंग शब्द जैसे: माला, लता , रमा ।

3. कोई 3 नपुंसकलिंग शब्द-रूप लिखिए

जैसे: पुष्यम, फलम् पत्रम् ।

4 चर, पठ् तथा वस् धात् के पांचों लकार लिखिए।

5.कोई 4 संस्कृत श्लोक याद करके लिखिए।

6. संस्कृत छात्र प्रतीज्ञा याद करके लिखिए।

7.1 से 100 तक की गिनती संस्कृत में याद करके लिखिए।

नोट : संस्कृत अवकाश गृहकार्य संस्कृत नोटब्क में ही लिखकर याद कीजिए।

MATHS

TAKE PRINTOUT OF THESE PAGES AND DO THE WORKSHEETS. SUBMIT YOUR WORK IN A TRANSPARENT FILE.

Worksheet 1

- 1. In a month of 30 days how many days are prime? (a) 11 (b) 10 (c) 12 (d) 15
- 2. Which day from Q. 18 Calendar is even prime number?(a) Monday (b) Wednesday (c) Friday (d) Sunday
- 3. What will be the maximum sum appear on single throw of two dice?

(a) 10 (b) 12 (c) 15 (d) 11

4. How many unit cubes required to form a bigger cube of 2 unit? (a) 16 (b) 12 (c) 8 (d) 10

5. Solve 7 – 3 × 9? (a) 36 (b) 15 (c) -20 (d) -36

- 6. How many diagonals Hexagon have? (a) 6 (b) 7 (c) 8 (d) 9
- 7. Name the shape of figure which has equal length of sides and each angle 90.(a) Rectangle (b) Square (c) Kite (d) Rhombus 8. Find the

value of "y" for given equation $2 \times y + 8 = 18$

(a) 2 (b) 3 (c) 4 (d) 5 9. Find the next number of following sequence: 2, -3, -8, (a) 13 (b) 5 (c) -5 (d) -13

10. "Clap, Clap, Jump, Clap, Clap, Jump......" For given sequence which is the 9th and 10th word? (a) Clap, Jump (b) Clap, Clap (c) Jump, Jump (d) Jump, Clap

11. Find the sum of days for May month which are perfect square.

- 12. How many 2 unit dices required to from a 6 unit dice?
- 13. Draw a polygon having sides greater than 4 and also find

the number of diagonals 14. Find the mean of first 10 natural

numbers.

16. Namita has 10 unit cubes, how many unit she requires more to form a bigger cube of dimension (a) 2 unit (b) 3 unit (c) 4 unit17. From the given calendar answer the following questions

^{15.} Find the missing value for given sequence 49, 72, 118,..., 394, 762, 1498 and also write the pattern in the given sequence

		Au	gust 2	020		
Barr.	Mon	Tem	Wet	Thu	Pri	841
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	00		101		

lies.

(b) Find the mean of all Tuesday

(c) Write all cubes number (d) Draw any two 3 by 3 grid from the given calendar and find the mean of all numbers and sum of diagonals

18. Solve the given puzzles (The missing values are the whole numbers between 1 and 9 and used only once)

	×		+		-	17		-		+		=	10
1		+		×	-	196.1	+		-		+		1
	×		×		=	70		x		x		=	16
ω.		+		-	-	in the second	-		-		+		
	×		÷		=	2		х		-		=	11
=		=	-	=			=		=		=	i.	
1		7		50			11		-3		12		24

A	C	A	T	Ε	1	A	C	A	1	A	۷
τ	F	в	F	м	U	R	0	L	0	в	A
R	1	Q	L	0	٥	N	E	G	Ε	1	R
1	С	U	A	N	A	0	F	Е	Q	N	1
N	Ν	A	1	0	т	N	F	в	U	0	A
0	L	D	м	м	C	C	1	R	Α	м	8
м	1	R	Q	1	U	0	С	A	т	1	L
1	N	A	N	A	в	Ν	1	E	1	A	E
A	Ε	T	Y	L	1	s	Ε	Y	0	L	E
L	A	T.	L.	1	C	т	Ν	1	N	E	R
0	R	C	0	т	т	Α	т	Е	R	R	0
L	L	R	P	Ε	F	Ν	R	G	0	L	0
U	Æ	N	A	м	0	т	E	D	E	0	т
U	0	R	Ε	Z	1	0	N	1	8	Z	A

19. Encircle the words as mention in the puzzle.

- a) Algebra b)Coefficient
- c) Degree d) Zero
- e) Constant f) Variable
- g) Polynomial h) Linear
- i) Quadratic j)Cubic
- k) Trinomial l)Monomial
- m) Binomial n)Equation
- o) Root

Worksheet 2

1.Observe the pattern given below and find the missing number a) 8 b) 9 c) 7 d) 2

8	3	4	
1	5	?	
6	7	2	

cture, how many Reptiles are neither Mammals nor Amphibians?



a)14 b) 13 c)12 d)9

3.If a, b, c, d are distinct prime numbers with as smallest primes then $a \times b \times c \times d$ is -a) odd number b) even number c) prime number d) none of these.

4.Sum of all the factors of 93 will be – a) 128 b) 35 c) 94 d) 120

5.Each side of a regular polygon is 2.5 cm in length . If its perimeter is 12.5 cm , then how many sides does the polygon have ? a) 4 b) 5 c) 6 d) 7

6.A square is a with equal sides.a) rectangle b) kite c) hexagon d) trapezium

7.How many non perfect square numbers exist in between 5^2 and 6^2 -a) 10 b) 11 c) 12 d) 9

8.Read the word given below and answer the questions

RACHITA

- a) What fractions of letters are vowels?
- b) What fractions of letters are consonants?

a)A- 3/7, B- 4/7 b) A- 3/7, B- 5/7 c) A- 2/7, B- 5/7 d) A- 4/7, B- 3/7

9.What will be the sum of 3^{rd} multiple of 6 with an even prime number ? a)24 b) 20 c) 21 d) 19

10. How many 1/8th parts taken away from 15/8 to make it a whole – a)6 b) 7 c) 9 d) 8 11.If 1=1, 1+3=4, 1+3+5=9, 1+3+5+7=16, then 1+3+5+7+9+11+13+15+17+19+21+23+25 +27+29 = ?

12. Find three prime numbers less than 30

whose product is 1955. 13. Find three

different fractional units that add up to 1.

14.Complete the grids to make the

required border sum:

-10	
	-5
9	

7	
	-5

Border sum is +4 Border sum is -4

15. I am a two digit number , my digits add up to 9 . If you reverse my digits , the new number is 27 more than the original . What number am I ?

16. The diagonals of a rhombus are 10cm and 24cm long. What is the perimeter of the rhombus?

17. I am a three digit number.

• My hundreds digit is three times my ones digit.

• The sum of all my digits is 18

• My tens digit is the average of the hundreds and ones digits. What number am I ?

18. If $= x^2 + 2$, when x is odd = x+3, when x is odd

х

Then find- i) $_{5}\times$

х

÷× 8 7

13

3

19. I am a two digit number. My tens digit is twice my ones digit . The sum of my digits is 12. What number am I?

20. A tank is filled with water. 1/3 of the water is used for cleaning. 1/4 of the remaining water is used for gardening. 2/5 of what's left after that is used for washing the car. If 60 litres of water is still left in the tank , how much water was there in the tank at first ?

21. Assertion (A): Every prime number greater than 2 is odd.

Reason (R): Prime numbers have exactly two distinct positive divisors.

Options: A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true, but R is false.

D. A is false, but R is true.

22. <u>Assertion (A): A number ending in 2, 3, 7, or 8 can never be a perfect</u> square. Reason (R): The square of any whole number ends only in 0, 1, 4, <u>5, 6, or 9. Options:</u>

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true, but R is false.

D. A is false, but R is true.

Riya's school is creating a beautiful **garden** in the shape of a **polygon**. The school has asked students to help choose the shape of the garden's boundary. Riya is given three options:

1. A triangle-shaped garden (3 sides)

2. A pentagon-shaped garden (5 sides)

3. A hexagon-shaped garden (6 sides)

Each side of the polygon will be made using fencing. The school has **60** meters of fencing material available.

23. If Riya chooses a regular polygon,

What will be the length of each side for each shape?

- 24. Find the sum of the interior angles for each shape.
- 25. Which shape would give the largest interior space? Why?
- 26. If Riya wants the garden to look more rounded, which polygon should she choose? **Worksheet 3**
 - 1 The number that comes next in the following series: 1,3, 5, 7, 9, 11, , , _

(A)13, 15, 17 (B)12, 13, 14 (C)13, 14, 15 (D)7,9,13

- 2 A box has 24 chocolates. If Rani eats 1/3 of them, how many does she eat? A) 6 B) 8 C) 12 D) 18
 - 3 3. The sum of two rational numbers is always:A) Rational B) Irrational C) Sometimes rational D) Always an integer
 - 4 What is the standard form of the rational number -18/24? A) -9/12 B) -3/4 C) -6/8 D) -2/3
 - 5 The surface area of a cube with side 5 cm is: A) 150 cm² B) 125 cm² C) 100 cm² D) 75 cm²

6 What is the unit of volume? A) cm B) cm² C) cm³ D) m

- 7 A cuboid has length 4 cm, breadth 3 cm and height 2 cm. What is its volume? A) 24 cm³ B) 18 cm³ C) 20 cm³ D) 30 cm³
 - 8 How many faces does a cube have? A) 4 B) 6 C) 8 D) 12

9 Which of the following is used to measure the surface area?

A) cm³ B) litres C) cm² D) m³

- 10 What is 1/4 of 20? A) 10 B) 4 C) 5 D) 2
- 11 A water tank is filled up to 3/4 of its capacity. If the tank's full capacity is 80 liters, how much water is in it now?

12 I am a number.

When you take 1/2 of me, you get 10. What number am I ?

13 There are 40 students in a class.

1/5 of them went on a trip. How many went on the trip?

- 14 I am a solid shape with all equal edges. I have 6 square faces and my volume is $a \times a \times a$. What shape am I?
- 15 I have a length, breadth, and height. I look like a box and my volume is found by $l \times b \times h$. What am I?
- 16 I think of a number. If I double it and subtract 4, I get 10. What is the number?
- 17 I add 8 to a number and get the same result as when I subtract 2 from twice that number. What is the number?

18. Assertion (A) –The area of a rectangle of length a and breadth b is ab Reasons (R) –The area of a rectangle (A) is the product of its length 'a' and width or breadth 'b'. a) Both A and R are true and R is the correct explanation of A

- b) Both A and R are true but R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true
- 19. Assertion (A) –The total surface area of a cylinder of base radius r and height h is 2πr (r + h) Reasons
 (R) –The surface area formula is a mathematical solution to find the total area of any three-dimensional object occupied by all of its surfaces
 - a) Both A and R are true and R is the correct explanation of A
 - b) Both A and R are true but R is not the correct explanation of A
 - c) A is true but R is false
 - d) A is false but R is true

- = 13 = 15
- 20. Here, you are given two representations, where symbols have been used. Each symbol represents a numeric value. Find the value of each symbol.

ENGLISH

A) Construction of various highways and sprawling flyovers has led to massive deforestation and loss of wildlife. Write an article expressing your concern.

B) Write a notice on "You are Ajay/ Anshi of kendriya vidyalaya Dwarka sector - 5,New Delhi. As Student Editor of your school magazine, draft notice in not more

than 50 words for your school notice board inviting article sketches from students of all classes.

C) Antonyms:

- 1.Heaven
- 2. Glad
- 3.Arrival
- 4. Abundance
- 5. Arrival
- 6.Bold
- 7. Kind
- 8. Blunt
- 9. Coward
- 10. Nasty
- D) Synonyms
- 1.Absolute
- 2.Affection
- 3.Contrary
- 4.Defer
- 5. Eminent
- 6. Feeble
- 7. Yield
- 8. Secular
- 9.Bleak
- 10.Conceal

E) Read the following comprehension for the Class 8 exam carefully and answer the given questions:

About the year 1900, a small, dark-haired boy named Charles Chaplin was often seen waiting outside the back entrances of London theatres. He looked thin and hungry but his blue eyes were determined. He was hoping to get work in show business. He could sing and dance. His parents were music-hall performers and he had been born into the life of the theatre. And, although his own boyhood was painfully hard, he knew how to make people laugh.

His own father had died from drinking too much. And his mother was not really able to look after Charles and his older half-brother, Sid. She was often sick in mind and had to be sent to hospital.

1.1 Choose the right option.

Q 1) The boy Charles Chaplin was ______.

- a) brown-haired
- b) dark-haired
- c) red-haired
- d) light-haired

Q 2) Chaplin thought to get a job in _____.

- a) soap business
- b) hotel business
- c) show business
- d) hospital business

Q 3) His parents were _____.

- a) music-hall performers
- b) actors
- c) singers
- d) directors

Q 4) His father had died due to _____.

- a) an illness
- b) accident
- c) drinking
- d) suicide

Q 5) The meaning of 'determined' is _____.

- a) mind made up
- b) mind turn up
- c) mind fade up
- d) mind turn down

F) Informal Letter

You recently visited a fair and had the opportunity to see an elephant there.Write a letter to your grandmother detailing your visit ,what you felt when you saw the elephant and other sight.

G) Prepare a diagram on "Rain Seeding" and explain its process as well as negative impacts.

SOCIAL SCIENCE

1. Map work-

(i) Label and locate states and union territories with their capitals on India Map and paste in your notebook.

(ii) Label and locate Continents and Oceans on World Map and paste in your notebook. 2.

Write the Fundamental Rights and Fundamental Duties of the Indian Constitution. 3.

Write about a tourist place of India which you like the most.

4. Describe a few major types of soils found in India.

5. Write and learn the 'Preamble' of the Indian Constitution.

SCIENCE

NOTE-

- Do it in your science HW notebook only
- Avoid the use of thermocol
- Click your photos while doing your activity 5 and paste it.

1) Read the following questionnaire, fill the responses (Tick Mark) and analyse the findings.

S: No.	Parameters	Strongly Agree	Agree	Disagree	No Such Observation
1.	Do you feel more emotional and often have mood swings?				
2.	Do you become easily upset?				
3.	Do you think that you are now a grown up and want to make your own decisions?				
4.	Are you concerned about the changes in your body appearance?				
5.	Do you feel distracted and easily influenced by peers?				
6.	Have you become more confident and aware?				
7.	Have you developed any changes in your likings?				
8.	Do you feel that your attitude has changed towards yourself and also towards the opposite sex?				

Calculate the percentage of persons opting for each of these parameters. • Which parameter is maximally selected for the option 'Strongly Agree?

Think, reflect and make a list of more such changes in your behaviour, thinking and attitude. You can also discuss it with your parents, siblings and friends.find the scientific basis for such changes. Read about the hormones, chemicals secreted in our body, which influence our physical changes as well as behaviour, mood, attitude, etc.

2) Make a list of the things you need to be healthy and live a happy and stress-free life during adolescence. Discuss the following with your elders at home.

1. What is the ideal diet for the healthy growth of adolescents?Which nutrients should b e included in their diet to meet their nutritional needs?

2. Why is it important to take care of personal hygiene during puberty?

3. How d o physical activities help in the healthy growth of adolescents? 4 . What is menstruation in girls and why is it of utmost importance for girls to understand the phenomenon?

5 . How can boys support female peers during periods, become empathetic and break the stigma associated with it?

3) Observe and identify the pattern formed by the stars at night . Gather information about the constellation as listed in t h e Table.

S. No.	Name of the Constellation	Any Other Name of the Constellation	Shape of the Constellation	Brightest Star	Faintest Star

4) Take two paper cups of equal size.

Hang them using threads of equal length in an inverted position on the two ends of a wooden stick, as shown in the Fig. 26 (a).

Now hold the thread, such that the wooden stick is horizontal.



Fig. 26 (a, b): Hot air rising up

Hot air rising up

Place a burning candle below one of the cups (Fig. 26 (b)).

Observe what happens to the cup.

Record your observations and the probable reasons for these observations in Table



5) Make a electric circuit using cardboard , cells/battry, wire, bulb, switch

etc 6)Make a chart or 3D model of water cycle

7) Make a working model of the following---

- Roll no 1-15.---- Solar cooker
- Roll no 31-45.---- Lunar eclipse
- Roll no 46-60.—— Solar eclipse

CLASS-9

ENGLISH

- Revise all the lessons that have been taught in the class.
- DESCRIPTIVE PARAGRAPH

a. You recently visited the Children's Park, a favourite place for all children, in your city. Write a description of the park in 100-150 words.

b. One of your friends, Raman, is very gentle and polite to you. You regard him as your best friend. Describe him in 100-150 words.

- C. Bismillah Khan
- d. Evelyn Glennie
- Article Writing
- a. Water Conservation: Every Drop Counts
- b. Save the Environment: Go Green!
- c. Fitness First: Stay Active, Stay Healthy
- Do 2 unseen passages.
 - Write theme and the summary of the following poems(with poetic devices)
 - The road not taken
- b. Wind

a.

- Read next 4 lessons from both the books and write their summary. Identify synonyms, antonyms and homonyms from these lessons
- Grammar and language skill: Exercises involving editing, reordering sentences and exercises based on tenses, prepositions and modals(2 each)

SCIENCE

A-DO THE GIVEN ASSIGNMENT IN HOMEWORK NOTEBOOK-

Q1- When 50 g of sugar is dissolved in 100 ml of water, there is no increase in volume . What characteristic of matter is illustrated by this observation?

Q2- Why steam at 100 degree Celsius is better for heating purposes than water at 100 degree Celsius?

Q3- Give two ways in which melting points and boiling points can be useful. Q4- A sample of water under study was found to boil at 102 degree celsius at normal pressure. Is the water pure? Will this water freeze at 0 degree Celsius? Q5-Osmosis is a special kind of diffusion. Explain.

Q6- A glass tumbler containing hot water is kept in the freezer compartment of a refrigerator (temperature < 0 degree Celsius). If you could measure the temperature of the content of the tumbler,



which of the following graphs would correctly represent the change in its temperature as a function of

Q7- The given temperature – time graph shows the heating curve for pure wax-



From the graph, answer the following questions-

- (a)- What is the physical state of the substance at the points A, B, C and D?
- (b)- What is the melting point of the substance?
- (c)- What is its boiling point?
- (d)- Which portions of the graph indicates that change of state is taking place?
- (e)- Name the terms used for heat absorbed during change of states involved in above process.

Q8- While heating Ice in a beaker with a thermometer suspended in it , a student recorded the following observations-

Time (in min.)	0	1	2	3	4	5	6	7	8	10	15	20	25	30	35
Temp. (in °C)	-3	-1	0	0	5	8	12	15	19	22	30	50	73	100	100

(a) State the change(s) observed between 2-3 min and name the process involved.

(b)- Between 30-35 min, the temperature remains constant. State the reason for this. Name the heat involved in the process and define it.

Q9- A student heats a beaker containing ice and water. He measures the temperature of the content of the beaker as a function of time. Which of the following would correctly represent the result? Justify your choice.



Q10- A student was given the mixture of Iron filings and Sulphur. He was told to heat it. On the basis of his observations, answer the following question:

(i)- What is the colour of the compound formed?

(ii)-Write the effect of magnet on it.

(iii)-Write the action of Carbon disulphide on it.

(iv)- Describe the effect of adding dilute hydrochloric acid to it. Identify the gas and write its one property.

11- During an experiment , the students were asked to prepare a 10% (mass /mass) solution of sugar in water. Ramesh dissolved 10 g of water in 100 g of water while Sarika prepared it by dissolving 10 g of sugar in water to make 100 g of the solution.

(i)- Are the two solutions of the same concentration?

(ii)- Compare the mass % of the two solutions.

Q12-Observe the given diagrams and answer the following questions-



(a)- State the main difference between the two types of cells.

(b)- Which of the following organism has Prokaryotic cell structure-

(i) Blue green algae (ii)- Amoeba (iii)- Paramecium (iv)- Rhizopus

(c)- Name the following organelles and their specific functions— (i)- Power house of the cell (ii)- Kitchen of the cell (iii)- Suicidal bags of the cell (iv) -Controlling center of the cell (v)- packaging and dispatching unit of the cell (vi) Internal transport system

Q13-State the reasons for the followings-

- (a)- Wet clothes dry up faster on sunny day.
- (b)- Desert coolers give more cooler air on dry hot day.
- (c)- Plant cells shrink when kept in hypertonic solution.
- (d)- Raw mangoes are rubbed with salt before making pickles.
- (e)- Raisins swell up when kept in water.

Q14-Draw labelled diagrams of plant cell and animal cell.

Q15- A group of students took an old shoe box and covered it with a black paper from all sides. They fixed a source of light (a torch) at one end of the box by making a hole in it and made another hole on the other side to view the light. They placed a milk sample contained in a beaker in the box as shown in the figure. They were amazed to see that milk taken in the was illuminated. They tried the same activity by taking a salt solution but found that light simply passed through it.

(i)- Explain why the milk sample was illuminated? Name the phenomenon involved.

(ii)- Same results were not observed with a salt solution. Explain.

(iii)- Can you suggest two more solutions which would show the same effect as shown by the milk solution?

B-PRACTICAL WORK-

Make a practical file and write the given experiment -

- 1- Determination of the melting point of ice and the boiling point of water.
- 2- Preparation of stained temporary mounts of onion peel and Human cheek cells.

C-WORKING MODEL-

Make an innovative and working model on any one of the given topics according to the given Roll no

- 1- Health (Roll no- 1 to 15
- 2- Agriculture (Roll no-16 to 30)
- 3- Life style (Roll no- 31 to 45
- 4- Communication and transport (Roll no- 46 to last roll no)

Subject- Maths

ASSIGNMENT NO.1

Q.1:-How many total number of rational numbers are there between any two non-equal rationalnumbers?

- Q.2:- Find the value of $(5^2)^7$
- Q.3:-Show that $(x = b)^{a+b} \cdot (x = b^{b+c} \cdot (x = a)^{c+a} = 1$

- Q.4:- Find the value of $10 \ \text{X} \ 15$
- Q.5:- Classify 4/9 as rational or irrational number.
- Q.6:- Express 0.272727..... in the form of p/q, where p and q are integers and $q \neq 0$.
- Q.7:- Represent 3.7 on the number line.
- Q.8:- Simplify the following expressions-
- (a) (5 + 7)(2 + 5)
- (b) (3 + 3)(3 -- 3)

ASSIGNMENT NO.2

- 1. Factorise $x^2 + 9x + 18$
- 2. Show that 2x 3 is a factor of $2x_3 9x_2 + x + 12$
- 3. For what value of m is $x_3 2mx_2 + 16$ divisible by (x+2)?
- 4. Without actually calculating the cubes, find the value of $(1/2)^{3}$ + $(1/3)^{3}$ $(5/6)^{3}$
- 5. Check whether 7+3x is a factor of $3x^2+7x$.
- 6. If a+b+c=9 and ab+bc+ca=26. find $a^2+b^2+c^2$.
- 7. Factorise: $x^3 + 27y^3 + 8z^3 18xyz$.
- 8. Prove that: $(x+y+z)^3-x^3-y^3-z^3 = 3(x+y)(y+z)(z+x)$.

ACTIVITY (Write in your Activity File)

Write any four Activities from Chapter 1 to Chapter 4.(Using Maths Lab Manual)

PORTFOLIO

NAME:ROLLNo:	
FATHER'S NAME: SCHOOL:	
	PHOTOGRAPH
MY VIEWS ON MATHS:	
WHAT I HAVE LEARNED IN MATHS TILL DATE:	

MY EXPECTATIONS FROM MY MATHS TEACHER:

MY ACHIEVEMENTS IN CURRENT SESSION:

.....

.....

WITRE BIREF HISTORY OF GREAT MATHEMATICIAN SRINIVAS RAMANUJAN ALONG WITH PHOTOGRAPH:

.....

..... -----..... -----.....

SOCIAL SCIENCE

1.COMPLETE THE WORK OF ALL 4 CHAPTERS IN COPY AND READ ALL CHAPTERS WELL AND MARKED THE DIFFICULT AREAS AND READ ONE /TWO CHAPTERS IN ADVANCE

2. MAKE AN ARTEFACT ON SIKKIM

③ Instructions:

- Create any ONE traditional Sikkimese artifact from the list given below.
- The artifact can be made using basic craft materials like paper, cloth, cardboard, clay, thread, wood sticks, etc. (depending on the item chosen).
- Be creative and neat while making the artifact.

• Along with the artifact, a **detailed write-up** must be submitted on A4 paper or in your notebook.

List of Sikkimese Artifacts (Choose One from the following or any other can also be made)

- Thangka Painting
- Wood Carving
- Prayer Wheel
- Prayer Flags
- Traditional Mask
- Bakhu (Traditional Dress)
- Handwoven Shawl
- Bamboo and Cane Product
- Traditional Jewelry
- Clay Pottery

THERE SHOULD BE A WRITE UP ALSO ON THE SAME(detail information of what you make on half size chart paper)

3.MAP WORK

1 Show these places on the map of France- Paris, Nantes, Bordeaux , Marseilles.

2 Take a political map of India and mark all the states with their capitals.

Tropic of Cancer, Standard Meridian, Neighbouring countries.

HINDI

ARTIFICIAL INTELLIGENCE

1. Computer project:

Topic: ARTIFICIAL INTELLIGENCE

The topic must contain the following points:

- a) Introduction to Artificial Intelligence
- b) Types of Artificial Intelligence.
- c) Purpose of Artificial Intelligence.
- d) The uses of Artificial Intelligence
- e) Advantage and disadvantage of Artificial Intelligence
- f) Applications of Artificial Intelligence

Make your project on A4 sheet paper. Write information; add pictures to make it attractive or you can also draw pictures. On the first page write topic name, your name, class and section. From second page write information about the topic. Use at least 5 pages to complete the project. Don't write information on both side of the page.

OR

Make PPT (PowerPoint presentation) on the given topic.

2. Learn chapter 1 and chapter 2.

CLASS-10

ARTIFICIAL INTELLIEGNCE

Complete the following activities in A4 size sheet:

Activity 1: Name and explain Multiple intelligences and mention the professions associated with it.

(e.g. an expert dancer - Kinesthetic intelligence)

Activity 2: Draw and name all the SDGs.

Activity 3: Draw the 4W Problem Canvas for the following scenario



Humans are social animals. We tend to organise and/or participate in various kinds of social gatherings all the time. We love eating out with friends and family because of which we can find restaurants almost everywhere and out of these, many of the restaurants arrange for buffets to offer a variety of food items to their customers. Be it small shops or big outlets, every restaurant prepares food in bulk as they expect a good crowd to come and enjoy their food. But in most cases, after the day ends, a lot of food is left which becomes unusable for the restaurant as they do not wish to serve stale food to their customers the next day. So, every day, they prepare food in large quantities keeping in mind the probable number of customers walking into their outlet. But if the expectations are not met, a good amount of food gets wasted which eventually becomes a loss for the restaurant as they either have to dump it or give it to hungry people for free. And if this daily loss is taken into account for a year, it becomes quite a big amount.

Complete the following questions in Al notebook:

- List and explain some ethical issues related with AI. Explain how it is impacting/will impact our society.(e.g. Deep Fake)
- II, Write 10 AI applications each of NLP, CV and Data domain of AI

<u>ENGLISH</u>

. A TRAVEL BROCHURE (To be written in English Classwork Notebook) Do research on FAMOUS ARCHITECTURAL STRUCTURES (any 3-4 monasteries/temples) of Sikkim. Prepare a travel brochure describing them. You can use the following guidelines to make your brochure informative and attractive (with pictures).

- 1) Name of the temple/monastery
- 2) Location
- 3) How to get there
- 4) Architectural details
- 5) Historical background
- 6) Best time to visit

Do question no 2 to 10 in English Notebook

2. Explain the following literary devices and cite suitable examples:-

- a) Simile
- b) Metaphor
- c) Personification
- d) Alliteration
- e) Repetition
- f) Oxymoron
- g) Refrain
- h) Hyperbole
- I) Allusion

3. Write an e-mail informing the office-bearers of a school's Science Society about their meeting with the Principal, to chalk out details about the forth-coming Science Fair.

4. Write an e-mail to inform the parents about the tour. Give necessary details. Your school is organising a tour to Nainital and Mussoorie for boys and girls respectively, of classes XI and XII. The Principal has asked you—The Head boy/girl to put up a notice for the same, on the school notice board.

5. Write an article on Lok Sabha Election 2024.

- 6. You received a courier in the name of your mother. The package was already paid but the delivery guy could not give it to you as the package requires the signature of the person i.e your mother. Your mother is not at home but you have to go out as well. Write a suitable message in about 50 words.
- 7. Prepare a power-point presentation of the lesson 'CHAPTER ONE OR TWO OF LITERATURE READER

India". (Minimum 10 slides)

8. Write a short character sketch of the following characters:-

a) MRS PACKLETIDE

b) MISS MEBIN

- 9. Read a newspaper every day and write 30 IDIOMS with its meanings from the newspaper.
- 10. Read one book of your choice and write a book review.

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- Handwoven Shawl
- Bamboo and Cane Product
- Traditional Jewelry
- Clay Pottery

•

3. A. Project: (on any one)

• Topics: Social issues

OR

Sustainable Development

OR

Consumer Awareness
- * Do it in a scrap book in beautiful handwriting with creativity.Marks will be given on the basis of content, presentation and creativity.
- * Make related diagrams.
- * Paste related pictures and maps.
- * Decorate decently.
- * Project will be made by individual students not in groups.

SCIENCE

Q1. Write symbols of elements and their name in given your textbook (ch. 1and learn them)

Q2. Write the name of compounds and their name in given your test book . (ch.1)

Q3. What is a balanced chemical equation? Why should chemical equations be balanced?

Q4.Write the balanced equation for the following chemical reactions.

- (i) Hydrogen + Chlorine → Hydrogen chloride (ii) (ii) Barium chloride + Aluminium sulphate →Bariumsulphate + Aluminium chloride
 - (iii) (iii) Sodium + Water \rightarrow Sodium hydroxide + Hydrogen

Q5. Write a balanced chemical equation with state symbols for thefollowing reactions.

(i) Solutions of barium chloride and sodium sulphate in water react togive insoluble barium sulphate and the solution of sodiumchloride.
(ii)Sodium hydroxide solution (in water) reacts with hydrochloricacidsolution (in water) to produce sodium chloride solution andwater.

Q6. Why are decomposition reactions called the opposite of combination reactions? Write equations for these reactions.

Q7.What is the difference between displacement and double displacement reactions? Write equations for these reactions.

Q.8. Write the balanced chemical equations for the following reactions and identify the type of reaction in each case.

(a) Nitrogen gas is treated with hydrogen gas in the presence of a catalyst at 773Ktoform ammonia gas.

(b) Sodium hydroxide solution is treated with acetic acid to form sodiumacetate and water.

(c) Ethanol is warmed with ethanoic acid to form ethyl acetate in the presence of concentrated H2 SO4 .

(d) Ethene is burnt in the presence of oxygen to form carbon dioxide, water and releasesheat and light.

Q9. Complete the missing components/variables given as x and y in the following reactions

(a) $Pb(NO_3)_2(aq) + 2KI(aq) \rightarrow PbI_2(x) + 2KNO_3(y)$

(b) Cu(s) + 2Ag NO₃ (aq) \rightarrow Cu(NO3) ₂ (aq) + x(s)

(c) $Zn(s) + H_2 SO4$ (aq) $\rightarrow ZnSO4$ (x) + H₂(y)

(d) $CaCO_3(s) \rightarrow x CaO(s) + CO_2(g)$

Q11. On heating blue coloured powder of copper (II) nitrate in a boiling tube, copper oxide (black), oxygen gas and a brown gas X is formed

(a) Write a balanced chemical equation of the reaction.

- (b) Identity the brown gas X evolved.
- (c) Identity the type of reaction.
- (d) What could be the pH range of aqueous solution of the gas X?
- Q12. Which among the following are physical or chemical changes?
- (a) Evaporation of petrol

(b) Burning of Liquefied Petroleum Gas (LPG)

(c) Heating of an iron rod to red hot.

(d) Curdling of milk

(e) Sublimation of solid ammonium chloride

Q13. Name the following (a) The process in plants that links light energy with chemical energy (b) Organisms that can prepare their own food (c) The cell organelle where photosynthesis occurs (d) Cells that surround a stomatal pore (e) Organisms that cannot prepare their own food (f) An enzyme secreted from gastric glands in stomach that actson proteins.

Q14. How do the guard cells regulate opening and closing of stomatal pores?

Q15. Differentiate between an autotroph and a heterotroph.

- Q16. How does aerobic respiration differ from anaerobic respiration?
- Q17. Differentiate between an artery and a vein.

Q18. Why is the rate of breathing in aquatic organisms much faster than in terrestrial organisms?

Q19. Mention the major events during photosynthesis.

Q20. Draw labeled diagram of the following

- (a) Human digestive system
- (b)Human respiratory system
- (c) Stomatal pore –Open and closed
- (d) Double circulation in humans

Q21. Make a working model for science exhibition.

Case study questions

Q22.Read the following and answer any four questions from(i) to(v)

Heterotrophic nutrition is a mode of nutrition in which organisms obtain readymade organicfood from outside sources. The organisms that depend upon outside sources for obtainingorganic nutrients are called heterotrophs. Heterotrophic nutrition is of three types: saprophytic, parasitic and holozoic nutrition.

(i In which of the following groups of organisms food material is broken outsidethebody and absorbed?

- (a) Mushroom, green plants, Amoeba
- (b) Yeast, mushroom, bread mould

- (c) Paramecium, Amoeba, Cuscuta
- (d) Cuscuta, lice, tapeworm
- (ii Which of the following is a parasite?
 - (a) Yeast
 - (b) Taenia
 - (c) Amoeba
 - (d) Earthworm

(iii Which of the following is an example of saprotroph? (a) Grass (b)

Mushroom

- (c) Amoeba
- (d) Paramecium

(iv Heterotrophic nutrition involves

- (a) production of simple sugar from inorganic compounds (b) utilisation of chemical energy to prepare food
- (c) utilisation of energy obtained by plants
- c) utilisation of energy obtained by

(d) all of these.

(v In Amoeba, food is digested in

- (a) mouth
- (b) pseudopodia
- (c) cilia
- (d) food vacuole

Q23. Read the following and answer any four questions from (i) to (v

Rishaanexperienced muscular cramps during the training session for his upcoming football match. Mr. Sen, his coach advised him on a schedule of some aerobic exercises toovercome his problem of muscular cramps. Rishaan followed his coach's adviceanddidnot face the problem of muscular cramps again during his match



- (i) Which life process is depicted by the above passage?
 - (a) Respiration
 - (b) Digestion
 - (c) Lutrition
 - (d) Excretion
- (ii) lack of oxygen in muscles often leads to cramps due to
 - (a) Conversion of pyruvate to ethanol
 - (b) Conversion of glucose to pyruvate

- (c) Conversion of pyruvate to glucose
- (d) Conversion of pyruvate to lactic acid
- (iii) Is lactic acid produced by anaerobic respiration in yeast?
 - (a) YES
 - (b)NO
- (iv) Why there is an increase in lactic acid concentration in the blood at the
 - beginningof the exercise?
 - (a)Yack of oxygen
 - (b) Excess of oxygen
 - (c) Yack of carbon dioxide
 - (d)Excess of carbon dioxide
- (v) Is carbon dioxide produced by anaerobic respiration in yeast? (a)YES (b)NO
- Q24. Read the following and answer any four questions from (i) to (v). A reaction in whichtwoor more reactants combine to form a single product is called a combination reaction. For example, calcium oxide reacts vigorously with water to form calcium hydroxide. The reaction is highly exothermic in nature, as lots of heat is produced during the reaction. CaO(s)+H₂O(I)→Ca(OH)₂(aq)+ Heat CaO(s)+H₂O(I)→Ca(OH)₂(aq)+ Heat CaO(s)+H₂O(I)→Ca(OH)₂(aq)+ Heat Calciumoxide Water Calcium hydroxide

Solution of Ca(OH)₂ is used for white wash the walls. Calcium hydroxide reacts slowly withcarbon dioxide in air to form a thin layer of calcium carbonate on the wall which givesashiny appearance to wall. Calcium carbonate will form after two or three days of whitewash. (i) What is the chemical name of quick lime?

(a) Calcium

(b) Calcium

(c) Calcium (d) Carbon

oxide carbonate dioxide

hydroxide

(ii) When carbon dioxide is passed through lime water,

formed

- (a) calcium hydroxide is formed
- (b) white precipitate of CaO is
 - (c) lime water turns milky (d) colour of lime water becomes green.

(iii) Following observations are observed when calcium oxide reacts vigorously with water.



Identify the incorrect observations

(I) It is an endothermic reaction (II) Slaked lime is produced. (III) Quick lime is produced. (IV) It is an exothermic reaction. (V) It is a combination reaction

(a) (I) and (II) (b) (III) and (IV) (c) (I) and (III) (d) (II), (IV) and (V) (iv) Quick lime combinesVigorously with water to form (A) which reacts slowly with the carbon dioxide in air to form(B) Identify the compounds(A) and (B)

(A) (B)

- (a) Calcium carbonate Calcium hydroxide
- (b) Calcium hydroxide Calcium carbonate
- (c) Calcium Calcium bicarbonate
- (d) Calcium bicarbonate Calcium
- (v) Among the following, the endothermic reaction is

(a) combination of carbon and oxygen to form carbon monoxide (b) combination of nitrogen and oxygen to form nitrogen monoxide (c) combination of glucose and oxygen to form carbon dioxide and water (d) combination of zinc and hydrochloric acid to form zinc chloride and hydrogen

Q25. Reactions in which one element takes place of another element in a compound, are knownas displacement reactions. In general, more reactive elements displaces a less reactive element from its compound. In all single displacement reactions, only one element displaces another element from its compound. The single displacement reactions are, however, written as just displacement

reactions. The displacement reaction between iron (III) oxide and powdered aluminiumproduces so much heat that iron metal obtained is in molten form. (i) Copper displaces whichof the following metals from its salt solution? (a) ZnSO₄ (b) FeSO₄ (c) AgNO₃ (d) NiSO₄ (ii) When zinc reacts with dilute sulphuric acid, the gas evolved is

- (a) red in colour and have a sweet smelling
- (b) green in colour and have a foul smell
- (c) colourless, odourless and burns with a pop sound
- (d) colourless, pungent smelling and burns with a pop sound
- (iii) When dry hydrogen is passed over a heated oxide of metal X using the apparatus shownbelow, a reddishbrown residue is obtained



The reddish -brown residue could be

(a) copper (b) lead (c) silver (d) zinc s a displacement reaction? \rightarrow MgSO4+Cu (a) CaO+H2O \rightarrow Ca(OH)2 (a)

```
CaO+H2O\rightarrowCa( OH)2
(b) MgCO3\rightarrowMg+CO2 (b) MgCO3\rightarrowMg+CO2(d) H2+Cl2\rightarrow2HCl (d) H2+Cl2\rightarrow2 HCl
```

(c) Mg+CuSO4→MgSO4+Cu (c) Mg+CuSO4
 (v) When dilute hydrochloric acid is added to granulated zinc placed in a test tube, the observation made is

- (a) the surface of the metal turns shining
- (b) the reaction mixture turns milky
- (c) greenish yellow gas is evolved
- (d) the colourless and odourless gas evolves with a pop sound.

MATHS

(1) If 49x + 51y = 499,

51x + 49y = 501, then find the value of x and y.

(2) The sum of a two digit number and the number obtained by interchanging the digits is 132. If the two digits differ by

2, find the number(s). (3) If α and β are zeroes of $2x^2 - 5x$

+ 3, then find the values of :

(a) $\alpha/\beta + \beta/\alpha$ (b) $1/2\alpha + 1/2\beta$

(4) Prove that $1/(2 + \sqrt{3})$ is an irrational number, given that $\sqrt{3}$ is irrational.

(5) If α and β are zeroes of the polynomial $2x^2 - 5x + 7$, then find a quadratic polynomial whose zeroes are $3\alpha + 4\beta$ and $4\alpha + 3\beta$.

(6) If α and β are two zeroes of the polynomial $25x^2 - 15x + 2$, find a quadratic polynomial whose zeroes are $1/2\alpha$ and $1/2\beta$.

- (7) Prove that $\sqrt{10}$ is an irrational number.
- (8) Solve $mx ny = m^2 + n^2$, x + y = 2m by substitution method.

(9) Solve
$$x/a + y/b = 2$$
,

 $ax - by = a^2 - b^2 by$ elimination method.

(10) If α and $1/\alpha$ are the zeroes of the polynomial $6x^{_2}$ + 11x – (k – 2) , then find the value of k.

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

(12) Explain why 2 x 3 x 5 + 5 and 5 x 7 x 11 + 7 x 5 are

composite numbers. (13) Check whether the

following are quadratic equations:

(i)
$$x(x+1) + 8 = (x+2)(x-2)$$

(ii) $(x + 2)^3 = 2x(x^2 - 1)$

(14) Represent the following situations in the form of quadratic equations:

(i) A train travels a distance of 480 km at a uniform speed. If the speed had been 8km/h less, then it would have taken 32 hours more to cover the same distance.

(ii) A cottage industry produces a certain number of toys in a day. The cost of production of each toy (in rupees) was found to be 55 minus the number of toys produced in a day. On a particular day, the total cost of production was Rs. 750.

In the following question, a statement of assertion (A) is followed by a statement of reason(R). Choose the correct answer out of the following choices:

(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.

(15) Assertion: HCF and LCM of two natural numbers are 24

and 900 respectively. Reason:LCM of two natural numbers

is always divisible by their HCF.

(16) Assertion: The pair of linear equations 2x + y = 4 and 3x - y = 1 represent intersecting lines.

Reason: The pair of linear equations $a_{1x} + b_{1y} + c_{1} = 0$ and $a_{2x} + b_{2y} + c_{2} = 0$ represent intersecting lines iff $a_{1/b_{1}} \neq a_{2/b_{2}}$.

(17) Assertion: If one zero of the polynomial $5x^2 - 11x - (k - 3)$ is the reciprocal of the other, then k = - 2.

Reason:The product of the zeroes of the polynomial $ax^2 + bx + c$, $a \neq 0$, is -b/a.

CASE STUDY BASED QUESTIONS [BASIC/STANDARD]

- If we jerk a stretched rope certain waves are produced on the rope. The figure given below shows a part of the wave. Answer the given questions by looking at the figure:
 - (i) What is the shape of the graph shown above?
 - (ii) How many zeroes are there for the polynomial? (iii) When does the graph of $y = ax^2 + bx + c$, open
 - upwards?
 - (iv) What is the expression of the given polynomial?
 - (v) What are the zeroes of the polynomial?



2. A park in Shakti Nagar in Delhi has swings made of rubber and iron chain. Kanishka who is studying in class X has noticed that this is a Mathematical shape, she has learned in Maths class. She drew the shape of the swing on her notebook as shown. Following questions raised in her mind.



(i) What is the shape of the curve?



32

32

32

- (ii) How many zeroes are there for the polynomial (shape of the swing)?
- (iii) What are the zeroes of the polynomial shown above?
- (iv) Write the expression of the polynomial.
- (v) What is the value of the polynomial if x = 1?
- One day Mahima visited a shopping mall with her mother. There, she observed different stores, such as

Shoe store, Clothes store, Fruit store etc.

In the shoe store the price list was as below : In the clothes store the price list was as below:

Types of shoes	Price (₹)	a total	Types of Clothes	Price (₹)	2 Dougal
Casual	500		T-Shirt	300	5 183 18164 BP
Formal	350		Trouser	600	ALTER THE REAL PROPERTY AND INCOMENTS
Sports	750	A S.	Blazer	2000	

In the fruit store the price list was as below:

Fruits	Price (₹)	
Apple	70 per kg	
Orange	40 per kg	
Guava	30 per kg	A STATE RESIDENT

Based upon the given information, answer the following questions:

- (i) Mahima's mother purchased x trousers and y kg oranges for ₹1400. She also purchased x pairs of sport shoes and y kg apple for ₹1850. Write of the equations that relate x and y.
- (ii) Mahima bought a Blazer and gave eleven notes in denominations of ₹200 and ₹100. Which pair of equations can be used if number of ₹200 notes be denoted as x and the number of ₹100 notes as y?
- (iii) State the condition when the pair of linear equations $a_1x + b_0y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ has a unique solution.
- and the second sec

A Mathematics Exhibition is being conducted in your School and one of your friends is making a model of a factor tree. He has some difficulty and asks for your help in completing a quiz for the audience.

Observe the following factor tree and answer the following:





- 1. What will be the value of x?
- a) 15005
- b) 13915
- c) 56920
- d) 17429
- 2. What will be the value of y?
- a) 23
- b) 22
- c) 11
- d) 19
- 3. What will be the value of z?
- a) 22
- b) 23
- c) 17
- d) 19

- 4. According to Fundamental Theorem of Arithmetic 13915 is a
- a) Composite number
- b) Prime number
- c) Neither prime nor composite
- d) Even number
- 5. The prime factorisation of 13915 is
- a) $5 \times 11^3 \times 13^2$
- b) $5 \times 11^3 \times 23^2$

CASE STUDY-2:

Amit is planning to buy a house and the layout is given below. The design and the measurement has been made such that areas of two bedrooms and kitchen togeth is 95 sq.m.



Based on the above information, answer the following questions:

- 1. Form the pair of linear equations in two variables from this situation.
- 2. Find the length of the outer boundary of the layout.
- 3. Find the area of each bedroom and kitchen in the layout.
- 4. Find the area of living room in the layout.
- 5. Find the cost of laying tiles in kitchen at the rate of Rs. 50 per sq.m

It is common that Governments revise travel fares from time to time based ov various factors such as inflation (a general increase in prices and fall in the purchasing value of money) on different types of vehicles like auto, Rickshaws, taxi Radio cab etc. The auto charges in a city comprise of a fixed charge together with the charge for the distance covered. Study the following situation



Name of the city	Distance travelled (Km)	Amount paid (Rs.)
City A	10	75
	15	110
City B	8	91
	14	145

Situation 1: In city A, for a journey of 10 km, the charge paid is Rs 75 and for a journey of 15 km, the charge paid is Rs 110.

Situation 2: In a city B, for a journey of 8km, the charge paid is Rs91 and for a journey of 14km, the charge paid is Rs 145.

Refer situation 1

- If the fixed charges of auto rickshaw be Rs x and the running charges be Rs km/hr, the pair of linear equations representing the situation is
 - a) x + 10y = 110, x + 15y = 75
 - b) x + 10y = 75, x + 15y = 110
 - c) 10x + y = 110, 15x + y = 75
 - d) 10x + y = 75, 15 x + y = 110

- 2. A person travels a distance of 50km. The amount he has to pay is
- a) Rs.155
- b) Rs.255
- c) Rs.355
- d) Rs.455

Refer situation 2

- 3. What will a person have to pay for travelling a distance of 30km?
- a) Rs.185
- b) Rs.289
- c) Rs.275
- d) Rs.305
- 4. The graph of lines representing the conditions are: (situation 2)



Activities of Practical File <u>Activity -1</u>



OBJECTIVE

To draw the graph of a quadratic polynomial and observe:

- (i) The shape of the curve when the coefficient of x^2 is positive.
- (ii) The shape of the curve when the coefficient of x^2 is negative.
- (iii) Its number of zeroes.

METHOD OF CONSTRUCTION

MATERIAL REQUIRED

Cardboard, graph paper, ruler, pencil, eraser, pen, adhesive.

- 1. Take cardboard of a convenient size and paste a graph paper on it.
- 2. Consider a quadratic polynomial $f(x) = ax^2 + bx + c$
- 3. Two cases arise:



Fig. 1

- (i) a > 0 (ii) a < 0
- 4. Find the ordered pairs (x, f(x)) for different values of x.
- 5. Plot these ordered pairs in the cartesian plane.



Fig. 2 6. Join the plotted points by a free hand curve [Fig. 1, Fig. 2 and Fig. 3].



DEMONSTRATION

- 1. The shape of the curve obtained in each case is a parabola.
- 2. Parabola opens upward when coefficient of x^2 is positive [see Fig. 2 and Fig. 3].
- 3. It opens downward when coefficient of x^2 is negative [see Fig. 1].
- 4. Maximum number of zeroes which a quadratic polynomial can have is 2.

OBSERVATION

- 1. Parabola in Fig. 1 opens _____
- 2. Parabola in Fig. 2 opens _____
- In Fig. 1, parabola intersects x-axis at _____ point(s).
- 4. Number of zeroes of the given polynomial is _____
- 5. Parabola in Fig. 2 intersects x-axis at _____ point(s).
- 6. Number of zeroes of the given polynomial is _____.
- 7. Parabola in Fig.3 intersects x-axis at _____ point(s).
- 8. Number of zeroes of the given polynomial is _____
- 9. Maximum number of zeroes which a quadratic polynomial can have is

APPLICATION

This activity helps in

- understanding the geometrical representation of a quadratic polynomial
- finding the number of zeroes of a quadratic polynomial.

Points on the graph paper should be joined by a free hand curve only.

NOTE

Activity - 2

To verify the conditions of consistency / inconsistency for a pair of linear equations in two variables by graphical method.

OBJECTIVE

MATERIAL REQUIRED

To verify the conditions of consistency/ inconsistency for a pair of linear equations in two variables by graphical method. Graph papers, pencil, eraser, cardboard, glue.

METHOD OF CONSTRUCTION

1. Take a pair of linear equations in two variables of the form

$a_1 x + b_1 y + c_1 = 0$	(1)	
$a_x x + b_y y + c_y = 0,$	(2)	

where a_1, b_1, a_2, b_2, c_1 and c_2 are all real numbers; a_1, b_1, a_2 and b_2 are not simultaneously zero.

There may be three cases :

Case I:
$$\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$$

Case II: $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$

Case III:
$$\frac{r_1}{a_2} = \frac{r_1}{b_2} \neq \frac{r_1}{c_2}$$

- Obtain the ordered pairs satisfying the pair of linear equations (1) and (2) for each of the above cases.
- Take a cardboard of a convenient size and paste a graph paper on it. Draw two perpendicular lines X'OX and YOY' on the graph paper (see Fig. 1). Plot the points obtained in Step 2 on different cartesian planes to obtain different graphs [see Fig. 1, Fig. 2 and Fig.3].

Mathematics

101



DEMONSTRATION

Case I: We obtain the graph as shown in Fig. 1. The two lines are intersecting at one point P. Co-ordinates of the point P(x,y) give the unique solution for the pair of linear equations (1) and (2).

Therefore, the pair of linear equations with $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$ is consistent and has the

unique solution.

Case II: We obtain the graph as shown in Fig. 2. The two lines are coincident. Thus, the pair of linear equations has infinitely many solutions.

Therefore, the pair of linear equations with $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$ is also consistent as well as dependent.

Mathematics

HINDI

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CLASS-12

Accountancy

- 1 Practice ch 1 (Fundamental of partnership) and Ch 2(upto topic done) in fair register
- 2 Do PYQ of bith chapters in fair notebook
- 3 Write HOTS questions of ch 1 and 2 as suggested
- 4 Prepare project file as guided
- **B.STUDIES**

1 Complete given notes of Ch 1 to 4 in fair register

- 2 Write keywords of each chapter in fair register
- 3 Prepare project file on Principles of mgt or Marketing mgt as guided
- 4 Write HOTS questions of ch 1 to 4 in fair notebook (PYQ including)

BIOLOGY

*Do the assignments in the classwork notebook only .

- 1. Revise all topics that are done in the class
- 2. Prepare a investigatory project as per the topics given .
- 3.Complete all the practical work in the practical file with well labeled diagrams.

ASSIGNMENTS ... To be done in classwork notebook

1.Describe the process of megasporogenesis up to fully developed embryo sac formation in an angiosperm.

2. (i) Draw a diagrammatic sketch of a transverse section of an anther of an angiosperm. Label its different walls and the tissue forming microspore mother cells.

(ii) Describe the process of microsporogenesis up to the formation of a microspore.

(iii) Write the function of 'germ pore' in a pollen grain of an angiosperm.

3. What is pollen-pistil interaction and how is it mediated?

4. Why should a bisexual flower be emasculated and bagged prior to artificial pollination?

5. Differentiate between geitonogamy and xenogamy in plants. Which one between the two will led to inbreeding depression and why?

6.Explain the role of pituitary and sex hormones in the process of spermatogenesis.

7.Draw a diagram of a mature human sperm. Label any three parts and write their functions.

8. How and at what stage of menstrual cycle is corpus luteum formed in human females? When does it regress?

9. Arrange the following hormones in the sequence of their secretion in a pregnant woman. hCG, LH, FSH, Relaxin

(ii) Mention their source and the function they perform.

10. With the help of graphical illustration only, show the changes in the levels of the pituitary hormone during menstrual cycle in humans.

11. What is amniocentesis? Why has the government imposed a statutory ban inspite of its importance in medical field?

12) Name any two copper releasing IUDs.

(ii) Explain, how do they act as effective contraceptives in human females.

13. Intra Cytoplasmic Sperm Injection (ICSI)' and 'Gamete Intra Fallopian Transfer (GIFT)' are two assisted reproductive technologies. How is one different from the other?

14 Prepare a poster for the school programme depicting the objectives of 'Reproductive and Child Healthcare Programme'.

PHYSICS

Note:

*Prepare a home time table . *Do the assignments in the class notebook only .

1. Derive an expression for electric field intensity at a point on the axial line and on the equatorial line of an electric pole and find their ratio.

2. Two charges of 4μ C are kept as shown. Find dipole moment.

q(0,0,3)....-q(0,0,-3)

3. Force of attraction between two-point charges placed at a distance of 'd' is 'F'. What distance apart they are kept in the same medium, so that, the force between them is 'F/3'?

4. Sketch the electric lines of force due to point charges q > 0, q < 0 and for uniform field.

5. Sketch the electric field lines, when a positive charge is kept in the vicinity of an uncharged conducting plate.

6. Two-point charges $4\mu c$ and $-2\mu c$ are separated by a distance of 1 m in air. At what point on the line joining the charges is the electric potential zero?

7. Depict the equipotential surfaces for a system of two identical positive point charges placed at distance d apart.

8. State Gauss' theorem. Apply this theorem to obtain the expression for the electric field intensity at a point due to an infinitely long, thin, uniformly charged straight wire

9. Derive an expression for torque acting on an electric dipole in a uniform electric filed.

10. An electric dipole of length 2 cm is placed with its axis making an angle of 60° to a uniform electric field 10° N/C. If its experience a torque of 8V3 Nm, Find the following

(a) Magnitude of the charge on the dipole

(b) Potential energy of the dipole

11. Draw a plot showing variation of a) Electric field E and b) Electric potential V with distance r due to a point charge Q.

12. A point charge Q is placed at point O as shown. Is the potential difference (V_{A^-} V_B) positive, negative or zero if Q is (i) positive (ii) negative



13. Three charges 2Q and -Q, -Q are kept at the vertices of equilateral triangle of side 'a'. Find the net charge on the vertex.

14. Compare the electric flux in a cubical surface of side 10 cm and a spherical surface of radius 10 cm, when a change of 5μ C is enclosed by them.

15. Write following practical's on the practical notebook. Draw neat circuit diagram. Don't fill the observation table. Observation table will be filled after performing practical in the lab.

Write in practical file

- To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
- To find resistance of a given wire / standard resistor using metre bridge.
- To verify the laws of combination (series) of resistances using a metre bridge.
- To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.

Write the following activities in practical file

- To assemble the components of a given electrical circuit.
- To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items.

16. Revise all topics that are covered in the class.

17. Prepare an investigatory project On any one topic of 12 th class (spiral binding).

-ECONOMICS

- 1. Define Economics. Explain difference between Micro and Macroeconomics.
- 2. Explain the difference between final goods and Intermediate goods.
- 3. Explain the difference between the following:
 - a. Stock and flow
 - b. Real flow and Money flow
 - c. Real GDP and Nominal GDP
 - d. Positive and Negative Externalities

- 4. Explain the difference between consumer goods and capital goods.
- 5. Explain the difference between depreciation and capital loss.
- 6. Explain the circular flow of Income in a two-sector economy.
- 7. "All capital goods are producer goods but all producer goods are not capital goods" Justify the given statement.
- 8. Define the following:
 - GDP Deflator
- a. Net Factor Income from Abroad
- b. Depreciation reserve fund
- c. Net Indirect Tax
- 9. Explain the following:
- Normal resident of a country
- a. Domestic territory of a country
- 10.Explain the limitations of GDP as a measure of GDP Welfare.

ENGLISH

#PROJECT TOPICS

• You have to make pictorial as well as graphical presentation on left hand side of the file on "any one" topic .All data should be collected authentically and hand written essay of 1000 words on right side.

#TOPIC 1 - The LAST LESSON

• Elaborate the theme of Linguistic Chauvinism and Procrastination and importance of Time

Management.

- Collect data about countries where people have these tendencies.
- How do they give importance to their mother tongue?

#TOPIC 2 - THE LOST SPRING

• Collect data about various slums in our country and living conditions there.Also elaborate whether

children have access of education there.

• How children are engaged in various kinds of work(Below 14)?

• Collect all information about biggest slums.

#TOPIC 3 - THE THIRD LEVEL

- Why 'hurry and worry' are trademarks of modern men?
- How far today life is insecure? Why do modern men want to escape?

• Interview your school principal or the counselor to know the problems (stress,

fear, anxiety etc.) faced by the students on the virtual platform.

#TOPIC 4- KEEPING QUITE

- Collect reasons of environmental degradation.
- How far is man harming the Earth?
- Focus on relevance of meditation and introspection.

#TOPIC 5 - MY MOTHER AT SIXTY-SIX

- Explain the importance of parents in the family.
- On the context of the poem how do you love and care your mother?

• Collect data about condition of old age homes in our country, living condition there, number of old age homes.

GEOGRAPHY

Make your own atlas with given map Map Items

- 1. State with highest population density and state with lowest population density (2011)
- 1. Leading producing states of the following crops:
 - (a) Rice,
- (b) Wheat,
- (c) Cotton,
- (d) Jute,
- (e) Sugarcane,
- (f) Tea and,

(g) Coffee

1. Mines:

Iron-ore mines: Mayurbhanj, Bailadila, Ratnagiri, Bellary

Manganese mines: Balaghat, Shimoga

Copper mines: Hazaribagh, Singhbhum, Khetarí

Bauxite mines: Katni, Bilaspur and Koraput

Coal mines: Jharia, Bokaro, Raniganj, Neyveli

Oil Refineries: Mathura, Jamnager, Barauni

4 Mark and label the major sea ports and airports on an

outline map of India :

Major Sea Ports: Kandla, Mumbai, Marmagao,

Kochi, Mangalore, Tuticorin, Chennai, Vishakhapatnam, Paradwip, Haldia

International Air ports: Ahmedabad, Mumbai, Bengaluru, Chennai, Kolkata, Guwahati, Delhi, Amritsar, Thiruvananthapuram and Hyderabad

Complete your class work Learn all chapters Complete practical file chapter 1 data it's source compilation and 2 Data processing

HINDI

HISTORY

Do all pyq of chapter 1, 2 and 3. Learn all three chapters for your upcoming exam. Do all maps of chapter 1,2 and 3. Do important questions of chapter 3(kinship,caste and class) topic wise.

MATHS

Chapter: Relation & Function.

*Q1. Prove that a Relation R on a n.e. Set Z (set of Integers) defined by $R = \{(x,y): |x-y| is a multiple of 3 \}$ is an equivalence relation. Hence Find Equivalence Class of [0], [1] & [2] *Q2. Prove that a Relation R on a n.e. Set R (Real no.) defined by $R = \{a,b\}: a \le b^2\}$ is neither Reflexive nor Symmetric nor Transitive Relation.

Q.3. Prove that a Relation R on a n.e. Set S (Set of Δ } defined by R = { ($\Delta x, \Delta y$) : $\Delta x \cong \Delta y$ (triangle x is Congruent to triangle y)} is an equivalence relation.

*Q4. Prove that a Relation R on a n.e. Set N XN where N is a natural number defined by (a,b)R(c,d) ⇔ (i) a + d = b + c (ii) ad = bc (iii) ad(b+c) = bc(a + d) Examine whether the R is an Equivalence relation or not ?

Q5. Prove that a Relation R on a n. e. Set S (Set of lines} defined by $R = \{(l_1, l_2) : l_1 \mid l_2 \text{ where } l_1, l_2 \in S \}$ is an equivalence relation.

Q6. Examine whether the Relation R on a Set $A = \{x : 1 \le x \le 6\} x \in N$ defined by $R = \{(x, y) : x \le y \text{ means } x \text{ divides } y, x, y \in A\}$ is Reflexive ,Symmetric or transitive or not ? **Objective Questions**

Q1. If $A = \{1,2,3\}$ write smallest Equivalence relation.

- Q2. If A = $\{1,2\}$ a relation R defined on A as R = $\{(1,2),(2,1),(1,1)\}$ Is R an Equivalence relation or not ? write justification .
- Q3. A relation R defined on a set A of human being in a city by $R = \{ (x,y) : x \text{ is wife of } y \}$ Is R an Equivalence relation or not ?

Q4. If a relation $R = \{ (1,1), (2,2), (3,3), (4,4), (5,5) \}$ defined on $A = \{x: x \le 5, x \in N\}$ Is R an Equivalence relation or not ?

Function:

Q1. Show that the function $f: R \rightarrow R$ defined by $(\mathbf{O} \mathbf{O}) = \mathbf{O}$

 \mathbf{O} and \mathbf{O} and

Q2. Show that the function $f: \mathbb{R} - \{2/3\} \to \mathbb{R} - \{2/3\}$ defined by $\textcircled{}(\textcircled{}) = 4^{(1)} + 3$

Q3. Show that the function $f : R \rightarrow R$ defined by $(\diamond \diamond) = \diamond \diamond - [\diamond \diamond]$ is neither one – one nor onto . Q4. Prove that the function $f : R \rightarrow R$ defined by $(\diamond \diamond) = \diamond \diamond | \diamond \diamond | | \diamond \diamond |$ is one –one onto . Q5. Prove that the function $f : N \rightarrow N$ defined by $f(n) = n^2 + n + 1$ is one – one but not onto. Q6. Prove that the function $f : R \rightarrow (-1, 1)$ defined by $(\diamond \diamond) = \diamond \diamond | \diamond \diamond | \rangle$ is one –one onto function.

Q7. Show that the function $f: N \rightarrow N$ defined by $\diamondsuit (\diamondsuit) = \{$ onto.

} is one one

Q8. Consider f: $R_* \rightarrow [4,\infty)$ given by $f(x) = x^2 + 4$ is a function, Where R_* is the set of Nonzero real number. Prove that f is one to one and onto.

- Q9. Let the function $f : \mathbb{R}^* \to [-5 \infty)$ defined by $\mathbf{O} \mathbf{O} (\mathbf{O} \mathbf{O}) = 9 \mathbf{O} \mathbf{O}^2 + 6 \mathbf{O} \mathbf{O} 5$ Where \mathbb{R}^* is the set of Non-zero real number. Is f bijective function ?
- Q10. If f: $A \rightarrow B$ is any function where $A = \{ 1,2,3 \}$ and $B = \{2,4,6,8 \}$ then find (a) Number of function from A to B.
 - (b) Number of One –One function from A to B .

Q11. If f: $A \rightarrow B$ is any function where $A = \{ 1,2,3,4 \}$ and $B = \{2,4,6,8 \}$ then find (a) Number of function from A to B.

(b) Number of One –One function from A to B.

(c) Number of bijective function from A to B.

Inverse Trigonometry

1) Evaluate

(i)
$$\sin \left[\frac{\pi}{-} \sin^{-1}(-\frac{1}{-})\right]$$
 (ii) $\tan^{-1}\left(3\right) - \cot^{-1}\left(-3\right)$ (iii) $\cos\left(\tan^{-1}(1)\right) 32\sqrt{\sqrt{-1}}$
(iv) $\tan^{-1}(1) + \cos^{-1}(-\frac{1}{-1})(1) \sec^{-1}(-\frac{1}{-1})(1) \sec^{-1}(1) + \cos^{-1}(-\frac{1}{-1})(1) \sec^{-1}(1) + \cos^{-1}(1) +$

$$(\mathbf{v}_{1})\cos\left(\frac{\mathbf{I}}{2}\right)^{-1}\left(\frac{\mathbf{I}}{2}\right)^{-1}\left(\mathbf{v}_{1}\right)\cos\left(\frac{\mathbf{I}}{2}\right)^{-1}\left(\frac{\mathbf{$$

2) Evaluate

 $\backslash \$

 $\begin{array}{c} (i) \sec \left(\frac{13\pi}{2} \right) (ii) \tan^{-1} (\tan^{\frac{3\pi}{2}}) (iii) \sin^{-1} (\sin^{\frac{4\pi}{2}}) (iv) \operatorname{cosec}_{-1} (\operatorname{cosec}_{-1} - \underline{\pi}) (v) \sin^{-1} (\operatorname{sin}_{-1} - \underline{\pi}) (v) \operatorname{sin}_{-1} - \underline{\pi}) (v) \operatorname{sin}_{-1} - \underline{\pi}) (v) \operatorname{sin}_{-1}$

$$\left| \frac{1}{2} \right| \frac{3}{2}$$

3. (i) Write domain of $\sin^{-1}2x$ (ii) Draw graph of \sin^{-1} \clubsuit , \cos^{-1} \clubsuit , \tan^{-1}

(iii) Write domain of $\cos^{-1}\sqrt{\mathbf{O}}\mathbf{O}^2 - 1$ (iv) Write domain of

 $\sin^{-1}(2 - 3)$

Chapter : Matrix & Determinants:

Q1. Write all the possible orders of matrices having

(1) 13 elements (2) 17 elements (3) 6 elements Q 2. Construct 2×3 matrix A = $[a_{ij}]$ whose elements a_{ij} is given by

(1) $a_{ij} = (i + 2j)^2 2$ (2) $a_{ij} = 2^{-2i+j} 3$ (2) $a_{ij} = 2^{-2i+j} 3$

(3) $a_{ij} = 2(2i-j)$

Q3. If A=[1 3 - 6] B=[4] Find AB and BA $_{1-131}5_{-1}$

Q4. If A = [] B = [2 3 - 2 1]] find AB, Hence find A.

 $\begin{bmatrix} 1 \\ 2 & 2 \end{bmatrix}$ Q3. If A = $\begin{bmatrix} 1 \\ 1 & 2 \end{bmatrix}$ Verify that A²- 4A - 5 I = 0.Hence find A⁻¹. 2 $\begin{bmatrix} 1 \\ 2 \\ 2 \end{bmatrix}$

Q4. Express each of the matrixes as sum of symmetric and skew-symmetric matrices $\begin{vmatrix} 2 & 0 - 2 \end{vmatrix}$

$$\begin{bmatrix} 1 & 2 \\ 2 & 5 \\ 3 \end{bmatrix}$$

Q5. Solution of equations using matrix method (5 marks)

1. Using matrix method, solve the following system of equations :

2x - y + z = 3, -x + 2y - z = -4, x - 2y + 2z = 1 (C.B.S.E. 2008) 2. Using matrix method, solve the following system of equations :

x + 2y - 3z = -4, 2x + 3y + 2z = 2, 3x - 3y - 4z = 11 (C.B.S.E. 2008,07) 3. Solve the following system of equations, using matrices :

$$\sum_{x=1}^{2} \sum_{y=1}^{3} \sum_{y=1}^{10} \sum_{y=1}^{4} \sum_{y=1}^{6} \sum_{y=1}^{6} \sum_{y=1}^{9} \sum_{y=1}^{20} \sum_{y=1}^{2} 2 (C.B.S.E. 2002 C) x y z$$

4. Find $A_{1, \text{ where } A} = \begin{bmatrix} 2 & 1 & 3 \end{bmatrix}$, Hence, solve the system of linear equations :

$$\begin{bmatrix} 0 & -2 & 1 \end{bmatrix}$$

x - 2y = 10, 2x + y + 3z = 8, - 2y + z = 7. (C.B.S.E. 1997)
$$\begin{bmatrix} -4 & 4 & 4 \\ -4 & 4 & 4 \end{bmatrix} \begin{bmatrix} 1 & -1 & 1 \\ 1 & -1 & 1 \end{bmatrix}$$

5. Given that A = $\begin{bmatrix} -7 & 1 \\ 1 & \text{and } B \end{bmatrix} \begin{bmatrix} -2 & -2 \\ -2 & -2 \end{bmatrix}$, find AB and use it to solve $\begin{bmatrix} 3 \\ -2 \end{bmatrix} \begin{bmatrix} 1 \\ -2 \end{bmatrix}$

the system of equations:
$$x - y + z = 4$$
, $x - 2y - 2z = 9$, $2x + y + 3z = 1$. (C.B.S.E. 2003 C) $\left[\begin{bmatrix} 1 - 2 & 0 \end{bmatrix}_{and C}^{2} = \begin{bmatrix} 7 & 2 & -6 \end{bmatrix} \right]$

Find AC and hence solve the equations 6. If $A = 2 \ 1 \ 3 \ -2 \ 1 \ -3$

$$\begin{bmatrix} 1 & | & | \\ |_{[0} -2 & 1] \\ |_{[-4 & 25 &]} \end{bmatrix}$$

x - 2 y= 10, 2 x + y+ 3 z = 8, - 2 y+ z = 7

Q6. A school wants to award its students for the values of Honesty, Regularity and Hardwork with a total cash award of Rs 6,000. Three times the award money for Hardwork added to that given for Honesty amounts to Rs11,000. The award money given for Honesty and Hardwork together is double the one given for Regularity. Represent the above situation algebraically and find the award money for each value, using matrix method.

POLITICAL SCIENCE

- 1. Do all Exercises question answers of chapter 3 in fair note book.
- 2. Make a question bank of chapter 1/2/3 in notebook.
- 3. Learn all 4 chapters for coming exam.
- 4. Do map work or cartoon work in notebook.
- 5. Make a hand made project file.
- 6. Do.all question answer of second book chapter 2 in notebook.
- 7. Read all chapters . Make your own notes..

IP

The following table shows the python code and its expected output. Choose the correct word for blank space in line 3 for printing the column:

A. index B. column C. col D. heads

 Python code
 Output

 1 import pandas as pd
 r1 10

 2 x = [10, 20 30]
 r1 10

 3 ser = pd.Series(x, =["r1", "r2", "r3"]) 4 print(ser)
 r3 30

2. What is the correct output for following Python code:

```
import pandas as pd
data = {"Marks1": 90, "Marks2": 95, "Marks3":
97} ser = pd.Series(data)
print(ser)
A. Marks1 90
Marks2 95
Marks3 97
dtype: int64
B. Marks1 Marks2 Marks3 90 95 97
C. Marks1 90
Marks2 95
Marks3 97
dtype: int16
D. Marks1 Marks2 Marks3 90 95 97
```

3. Predict the output of the given Python code:

import pandas as pd

list1=[-10,-20,-30]

ser = pd.Series(list1*2)

print(ser)

4, Complete the given Python code to get the required output as:

Rajasthan import as pd

di = {'Corbett': 'Uttarakhand', 'Sariska': 'Rajasthan', 'Kanha': 'Madhya

Pradesh', 'Gir':'Gujarat'}

NP = . Series()

print(NP[])

5.Write a program to create a series object using a dictionary that stores the number of students

in each house of class 12D of your school.

Note: Assume four house names are Beas, Chenab, Ravi and Satluj having 18, 2, 20, 18

students respectively and Pandas library has been imported as pd.

6. Which of the following code will generate the following output? Jan

31

Feb 28

Mar 31

dtype: int64

```
(a) import pandas
```

S1 = pd.Series(data = [31,28,31], index=["Jan","Feb","Mar"])

print(S1)

```
(b) import pandas as pd
```

S1 = p1.series([31,28,31], index=["Jan", "Feb", "Mar"])

print(S1)

```
(c) import pandas as pd
```

S1 = pd.Series([31,28,31], columns=["Jan","Feb","Mar"])

print(S1)

(d) import pandas as pd

S1 = pd.Series([31,28,31], index=["Jan","Feb","Mar"]) print(S1)

7.Consider the following DataFrame 'df' and answer following questions:

rollno name UT1 UT2 UT3 UT4

0 1 Prerna Singh 24 24 20 22

1 2 Manish Arora 18 17 19 22

2 3 Tanish Goel 20 22 18 24

3 4 Falguni Jain 22 20 24 20

4 5 KanikaBhatnagar 15 20 18 22

5 6 Ramandeep Kaur 20 15 22 24

(a) The teacher needs to know the roll no, name and marks scored by the student with roll number 4. Help her to write the code.

(b) Ms. Sharma, the class teacher wants to add a new column, the 'Grade' with the values, 'A', 'B', 'A', 'B', 'A', to the DataFrame. Help her to write code.

8. Consider the following DataFrame, named 'Stud'

Name Rollno English Hindi Maths Ssc Science 0 Aman 101 65 54 87 69 74 1 Suman

102 69 64 90 87 59 2 Priya 103 75 72 98 90 75 3 Tahir 104 88 80 78 45 87 4 Bharti 105

45 53 81 69 98 Write commands to:

i. Display the Name and Rollno.

ii. Add a new row with values (Rakesh ,106, 79 , 86, 91, 77, 93) 9. Consider the

Dataframe DF as shown below.NOTE:Libraries has been imported. A B C

0 10 20 30 1 40 50 60

What will be the output of the following code?
a) print("I :",DF.iloc([0][0]) b) print("II :",DF.loc([0]['C']))

10.4. Write the correct output on execution of the following Pandas

code import pandas as pd

df = pd.DataFrame({"A":["p01", "p02", "p03"], "B" : ["Pen", "Pencil", "Eraser"]}) df

= df.rename(columns = {"A":"PID", "B":"PNAME"})

df = df.rename(index = {0:"A", 1:"B", 2:"C"})

print(df)

11. 1. Consider a DataFrame (MRK) given below:

NAME PHY CHEM

S1 ATUL 51 35

S2 ANIL 62 61

S3 ANUJ 45 46

(A) Write commands to create the DataFrame (MRK) using a Dictionary of Lists

(B) If a DataFrame is created using a 2D dictionary, then the column labels are formed from the inner dictionary's keys or outer dictionary's keys?

12. What do you mean by Series in Python? Give all the methods of creating series in pandas.

13. Explain all the attributes and methods of series in pandas.

14. Consider the following Series object "S1" and write the output of the following statement:

import pandas as pd

L1=[21, 41, 62, 81, 23, 45, 68, 89]

S1 = pd.Series(L1)

print("1. ",S1.index)
print("2. ",S1.values)

print("3. ",S1.shape)

print("4. ",S1.ndim)

print("5. ",S1.size)

print("6. ",S1.nbytes)

print("7. ",S1[0])

print("8. ",S1[2]+S1[0])

print("9. ",S1[5]**2)

print("10. ",S1.empty)

print("11.\n",S1[[1, 5, 6]])

print("12.\n",S1[5:7],"\n")

print("13.\n",S1[::-1])

print("14.\n",S1>60)

print("15.\n",S1[S1>60])

print("16.\n",len(S1))

 $print("17.\n",S1.count())$

print("18.\n",S1.head())

print("19.\n",S1.tail())

print("20.\n",S1[4:5] + S1[4:5])

15. What is DataFrame? Explain all the methods of creating a data frame With examples.

16. Explain all the attributes and methods of DataFrame in pandas.

COMPUTER SCIENCE

Write answers to the following questions in classwork-notebook:

1. What are the rules of creating identifiers in python? 2. What will be the outcomes of the following expressions: a. 12 * 2

b. 46 // 9
c. 46 % 9
d. -57 % 8
e. -57 // 8
f. 25.57 % 5.67
g. 25.57 // 5.67
h. 2 * 3 + 2
i. 21 * 3 / 7 * 9
j. 21 * 3 / (7 * 9)
k. 2 ** (6 / 2 + 1)

3. Assume the following variables:

b1 = True b2 = False b3 = False n = 7m = 3s = "Mumbai"t = "Auspicious"

What will be the outcome of the following boolean expressions: a.

```
n + m ** 2

b. b1 and True

c. b2 or n > m

d. n ** m

e. len (s) > len (t) or b1 and b2

f. s[1] == t[1]

g. s [-1] in t and t[1] in s

h. ord (s[0]) + ord (t[0])

i. t[n] == s[m]

j. b1 or b2 and b3 or n == m
```

k. s ** 3 l. (s + t) * (n // m)

4. Which numbers will be generated by the following 'ranges': a) range (8)

- b) range (-1,-10,-2)
- c) range (10,2,-1)
- d) range (15,3)
- e) range (3,7)

5. Explain with examples the working of the following built-in functions of python related to strings:

a) lower()

- b) upper()
- c) islower()
- d) isupper()
- e) isalpha()

```
f) isnumeric()
```

- g) split()
- h) join()

```
i) strip(), lstrip(), rstrip()
```

6. What will be the output of the following statements using '**split** ()' method of strings:

"apple#banana#mango#orange#grapes".split("#")

"one123+++two456+++three123+++four+++678".split ('+++') ● "elephant".split('e')

"ABCDXYZABC132#\$@#\$ABjklmn562".split('AB')

"very,well,done,my,friends".split(',')

7. Write the output of the following statements using 'join()' method of strings:

- "+++".join (['monkey','tiger','horse','lion'])
- "-".join (['I currently live in', 'Mumbai'])
- "?".join (['What is your name', 'Where do you live', 'nice to see you'])

8. Consider the following list:

x = [72, 45, 34, 65, 56, 89, 32, 45]

What will be the output of the following slices:

a) x [2:7] b) x [8:1:-1] c) x [5::] d) x[:8:] e) x [::2] f) x [::-1] g) x [::-2]

9. Explain the working of conditional statements in python in your own words.

10. Tell what will be the output of the following programs, *without running them on a python IDE*:

```
a) a = 10
b = 2
c = a / (b*2)
print (a,b,c, sep = '&&')
b) a = 25
b = a ** 2
c = b / a
d = a + b / c - c / a
print (a,b,c,d, sep = '#')
c) x = 5
limit = 1065
multi = 2
while x < limit:
print ("x = ", x, "multi =", multi)
```

11. Answer the following questions related to the programs given in question no. 4:

a. In program a), what would have been the output if the last 'print' statement was changed to:

print (a,b,c, end = "&&")

b. Which part of the program e) determines whether the string has odd length or not ?

- c. What values does the loop variable s in the program e) get ?
- d. What is the role of the variable vowels in the program f)?
- e. Modify the program f) so that it would tell the number of strings in the list e which end with a vowel.
- f. Modify the program f) to tell how many strings in the list start with a consonant (any alphabet other than the vowels).

12. See the program given below which calculates number of students in different ranges of marks (0-33, 34-60, 61-75,76-100) from a given list of marks:

```
marks =
[78,25,56,65,28,79,80,81,25,55,26,56,27,57,28,58,41,81,42,85,43,92,44,96]
,98]
count 0 \ 33 = 0
count_34_60 = 0
count_{61_{75}} = 0
count_76_100 = 0
for m in marks:
  if (m >= 0 and m <= 33):
     count_0_33 += 1
  elif (m \ge 34 \text{ and } m \le 60):
     count 34 60 += 1
  elif (m \ge 61 \text{ and } m \le 75):
     count_61_75 += 1
  elif (m >= 76 and m <= 100):
     count 76 100 += 1
  else:
     print ("Invalid input")
     break
print ("Number of students with marks in the range 0 to 33 -".
count 0 33) print ("Number of students with marks in the range 34 to 60 -
", count_34_60)
```

print ("Number of students with marks in the range 61 to 75 -", count_61_75) print ("Number of students with marks in the range 76 to 100 -", count_76_100)

Answer the following questions:

a) What values does the loop variable m get in this program ?b) Explain the working of the program in your own words. c)Explain the 'else' part - what does it do ?

13. Write a program similar to the one given in question no. 6, to calculate the numbers of students with marks in different ranges (0-33, 34-60, 61-75, 76-100) for each subject, from the dictionary given below:

marks = {"English": [21,35,62,81,22,36,63,82,23,37,63,83,24,38,64,84,45,47,55,56,71,72,73,83] ,84,85], "Science": [15,33,51,76,16,34,52,77,33,34,67,78,89,98,90,55,57,53,77,76,72,71,70,7 4], "Mathematics" = [55,54,43,44,21,22,23,24,76,77,78,79,65,66,63,62,31,32,31,32,37,78,91,92 .93.94]. "Social Science" = [61,35,62,81,22,36,63,82,23,37,63,83,24,38,64,84,45,47,55,56,71,72,73,83] ,84,45], "Hindi": [45,33,51,76,16,34,52,77,33,34,67,78,89,98,90,55,57,53,77,76,72,71,70,7 61. "Sanskrit": [64,54,43,44,21,22,23,24,76,77,78,79,65,66,63,62,31,32,31,32,37,78,91,92 ,93,76] }

14. Write a program using functions to calculate the area of different figures/shapes like circle, rectangle, square, triangle, sphere, cone, cylinder etc. Provide a menu to the user to choose the figure type, then

take input the required data like the radius of circle, length and breadth of the rectangle for the figure selected, then call the corresponding function.

15. Solve the questions/assignments given for the functions topic, given in Google Classroom.