



HOLIDAY HOMEWORK OF SUMMER BREAK CLASS – IX (2023-24)

English

Prepare a *magazine* on Puducherry under the following headings on *A4* size sheets only:-

1. Cover Page (Add a catchy title to your Magazine)
2. Content Page
3. Introduction - Location / Physical
4. Features/Climate / Population
5. People of Puducherry - dress/ occupation
6. Food of Puducherry - crops grown/ what they cook and eat
7. Art Forms - Will include the Art, Dance and Music forms, support with own drawings of the Art Forms if you can, else paste pictures
8. Eminent Personalities of Puducherry
9. Festivals/ Fairs
10. Tourism in Puducherry - Places you can visit, how you'll reach (air/ rail/ road)

10 Pages in total for each Magazine.

2. Slogans are catchy phrases or verses that are arranged in a specific way to attract the audience and make them remember our product/idea/business, whichever is being promoted. A perfect slogan should be able to express a complex idea in simple terms but should be interesting and unforgettable at the same time. Rhyme, satire, irony are some of the devices used to make slogans unique.

Your task is to write at least four slogans supporting Yoga..

Write each slogan in a single page with nice handwriting and artwork or embroidery...Paste the papers in a A4 size transparent file.

3. Design an advertisement for Patanjali Powervita and add a catchy phrase to promote / sell your product particularly in Puducherry..

Write points why Patanjali Powervita is important for the people of Puducherry..

वैदिक-विभाग:

- १- अधोलिखितअव्ययानाम् अर्थं लिखित्वा वाक्येषु च प्रयोगं कुरुत (संस्कृतस्य टिप्पणी-पुस्तिकायां व्याकरणभागे लिखित्वा आनयत) ।
अन्यत्र, यत्र, उभयत्र, यदा-तदा, एकदा, पुरा, अधुना, अद्य, श्वः, ह्यः, यदि-तर्हि, कति, कुतः, कथम्, किमर्थं, सम्यक्, एव, यथा-तथा ।
- २- सर्वनामशब्दाः- किम्, तत्, इदम् (त्रिषु लिंगेषु) अस्मद्, युष्मद्, राजन्, विद्वस्, भवत् गुणिन् शब्दानां रूपाणि स्मृत्वा स्व-संस्कृतस्य टिप्पणीपुस्तिकायां व्याकरणभागे लिखित्वा च आनयत ।
- ३- सामूहिकं यज्ञं कृत्वा सामूहिकं योगप्रशिक्षणं च दत्वा तस्य सामूहिकछायाचित्रम् एकस्मिन् A4 sheet कर्गदि संश्लेश्य तस्य विवरणं संस्कृतेन लिखत ।
- ४- स्व-पाकशालायाम् उपलब्ध-खाद्य-वस्तूनां नामानि तेषां पात्रेषु संस्कृते विलिख्य छायाचित्राणि A4 sheet कर्गदि संश्लेश्य आनयन्तु ।
- ५- पाण्डुर्यः धार्मिकस्थलानां, संस्कृति-परम्पराणां, मुख्यपर्वणां विषये सचित्रं 250 शब्देषु वर्णनं कुरुत-

⇒ केवल नूतन विद्यार्थियों के लिये ।

• शब्दरूप

अकारान्त पुल्लिङ्ग शब्द – बालक, देव, शिव, गज, शुक ।
आकारान्त स्त्रीलिङ्ग शब्द – लता, गीता, सीता, दीपा, दिव्या ।
अकारान्त नपुंसकलिङ्ग शब्द - फल, वन, जल, अन्न ।

धातुरूप लटलकार (वर्तमानकाल)

पठ् (पढ़ना), लिख् (लिखना), हस् (हसना), चल् (चलना), गम् (जाना), कृ (करना)

नोट- समस्त कार्य पृथक् टिप्पणी पुस्तिका में लिखकर लायें ।

वैदिक-विभाग:

कक्षा-IX {सर्वेषां कृते}

क्रम.सं.	दिनाङ्कः	अभिवादनम्	योगः	यज्ञः	भोजनमन्त्रः	संस्कृतवाक्यम्	शयनमन्त्रः	अभिभावक-हस्ताक्षरम्
1.	30.5.23							
2.	31.5.23							
3.	1.06.23							
4.	2.06.23							
5.	3.06.23							
6.	4.06.23							
7.	5.06.23							
8.	6.06.23							

9.	7.06.23							
10.	8.06.23							
11.	9.06.23							
12.	10.06.23							
13.	11.06.23							
14.	12.06.23							
15.	13.06.23							
16.	14.06.23							
17.	15.06.23							
18.	16.06.23							
19.	17.06.23							
20.	18.06.23							
21.	19.06.23							
22.	20.06.23							
23.	21.06.23							
24.	22.06.23							
25.	23.06.23							
26.	24.06.23							
27.	25.06.23							
28.	26.06.23							

धातव्य-

1. भो छात्र ! प्रतिदिन आपको उपरोक्त क्रिया कलाप अवश्य करने हैं और प्रतिनित्य अपने अभिभावकों के हस्ताक्षर इस आशय से कराने हैं कि आपने उनके समक्ष किया है ।
2. प्रतिदिन किये गये क्रिया कलाप को चित्र के माध्यम से प्रमाण सहित उपस्थित करना अनिवार्य है ।



Very Short Answer Type Questions

Q1 Decimal expansion of a rational number is terminating if in its denominator there is:

- (a) 2 or 5 (b) 3 or 5 (c) 9 or 11 (d) 3 or 7

Q2 If m and n are two natural numbers and $mn = 32$, then $5mn$ is

Q3 Is the point $(0,3)$ lies on the line $3x + 4y = 12$?

Q4 How many zeroes does a cubic polynomial have?

Q5 Write the coordinates of a point on x-axis at a distance of 6 units from the origin in the positive direction of x-axis.

Q6 If $p(x) = x+4$, then $p(x) + p(-x)$ will be

Q7 For the equation $5x + 8y = 50$, if $y = 10$, then the value of x is

Q8 Frame a linear equation in the form $ax + by + c = 0$ by using the given values of a , b and c :
 $a = -2$,

$b = 3$, $c = 4$:

Q9 What is the degree of the polynomial $\sqrt{3}$

Q10 If $x+y+z = 0$, then the value of $x^3 + y^3 + z^3$ is

Short Answer Type- Type I

Q1 Without actually calculating the cubes, find the value of $483^3 - 303^3 - 183^3$

Q2 Factorise $27x^3 - (3x - y)^3$

Q3 find the dimensions of a cuboid, whose volume is $2py^2 + 6py - 20p$

Q4 Which bear is nearest to paved road

Q5 Bear 467 has been injured. The forest rescue team starts from the control room and decides to use the paved road as much as possible. Which road should they take?

Q6 A tiger is at $(11, 4)$. How far from it is the nearest bear?

Q7 A soap manufacturer makes fragrant and non-fragrant liquid soaps. The liquid soaps are filled in plastic bottles and packed in equal size cartons for transportation. Each carton contains 50 bottles. The mass of a full bottle of soap is 220 gm and that of a half-filled bottle is 120 gm. What will be the mass (gm) of the empty bottle?

Q8 The area of a rectangle is $(3x^2 + x - 2)$ square units. Its width is $(1 + x)$ units. What is the length of the rectangle?

Q9 A number line consists of an infinite number of points. Points on it are associated with a rational number. Khushi says – 'A point on the number line can represent different forms of a rational number.' Akash says – 'I think each point represents a unique rational number.' Who is correct? Give an example to support your argument.

Q10 Screen size is defined by the distance between two diagonally opposite corners of a screen. A manufacturer can make rectangular display screens as per clients' demands. A client purchased a display screen of size $\sqrt{70}$ units from the manufacturer last year. For an upgrade, he wants the same type of screen with a larger display. What are the possible dimensions of the screen purchased by the client last year?

Short Answer Type II

Q1 On plotting the points $O(0,0)$, $A(3,0)$, $B(3,4)$, $C(0,4)$ and joining OA , AB , BC and CO , which shape is obtained?

Q2 If m and n are two natural numbers and $mn = 32$, then nmn is

A shipment service provider uses three types of containers for shipping materials. The height and width of the three containers are the same. The containers' height is 0.15 m more than their width, and the volume of the smallest container is 652 m^3

A forest ranger keeps track of bears in his area. He plotted their location on a graph. The origin represents the ranger's control room's location. To access and maintain equipment, Road x and Road y have been laid and paved inside the forest. They pass through the control room.



One unit on the graph paper represents 1 km.

Q3 Write a polynomial relating Container 1's length, breadth and height with its volume.

Q4 What is the height of each container?

Q5 Express $1.32 + 0.35$ as a fraction in simplest form.

Q6 If $x = 1/(2-\sqrt{3})$, find the value of $x^3 - 2x^2 - 7x + 5$.

Q7 If $a=2$ and $b=3$, find the values of i) $(ab + ba)-1$ ii) $(aa + bb)-1$

Q8 if $a=b^2x$, $b = c^2y$, $c = a^2z$, Find the value of xyz .

Q9 Simplify : $(3.59 \times 3.59 - 2.41 \times 2.41) / (3.59 + 2.41)$

Q10 Graph the points $P(-3,0)$ and $Q(3,0)$. What are the coordinates of R and S if $PQRS$ is a square?

Long Answer Type Questions

Q1 If $(x+4)$ is a factor of the polynomial $x^3 - x^2 - 14x + 24$, find its other factors.

Q2 If m and n are two natural numbers and $mn = 32$, then nmn is

Q3 For what value of a is $2x^3 + ax^2 + 11x + a + 3$ exactly divisible by $(2x - 1)$.

Q4 Using factor theorem, Show that $(a - b)$ is the factor of $a(b^2 - c^2) + b(c^2 - a^2) + c(a^2 - b^2)$

Q5 Locate $\sqrt{13}$ on the number line. Justify your answer.

Q6 Find the value of a so that $(2x-1)$ will be a factor of $2x^3 + ax^2 + 11x + a + 3$.

Q7 Write the coordinates of the vertices of a rectangle which is 5 units long and 3 unit wide, if the rectangle is in the first quadrant, its longer side lies on the x -axis and one vertex is at origin. Find the area also.

Q8 Prove that $\sqrt{2}$ is irrational number. [by division method]

Q9 Find the value of p in each of the following:

i) $(23)^4 = (22)^p$ ii) $5^{p-4} \times 2^{p-5} = 5$

Q10 Two classmates Radhika and Krishna simplifies two different expressions during the revision hour and explained to each other their simplifications. Radhika explains simplifications of $\sqrt{2}/(\sqrt{5}+\sqrt{3})$ and Krishna explains simplification of $\sqrt{28} + \sqrt{98} + \sqrt{147}$. Write both the simplifications.

Art Integrated Project

Puducherry is a Union Territory of **India** and offers a glimpse of **France in India**. It is bounded on the east by the **Bay of Bengal** and on the remaining three sides is **Tamil Nadu**. Before September 20, 2006, **Puducherry** was known as **Pondicherry**, whose Vedic name was Vedpuri.

Draw the Mathematical Design & Patterns used in the famous **Matrimandir Auroville** of Pondicherry. Use the Coordinate System to make it.



Write the mathematical significance of the figure and history of Matri Mandir.

See the following link :

<https://youtu.be/p2sJaSZGkbU>

Project II- Make 30 Days attractive formula bank calendar on important topic related to the Maths syllabus.

Make formula bank chapter wise in the form of table calendar.

1. It must be date wise and chapter wise.
2. It must be hand written and creative.
3. For example:

JUNE 01,2023

Chapter – Real Numbers

1. $HCF(a,b) \times LCM(a,b) = a \times b$

JUNE 2, 2023

CHAPTER- POLYNOMIAL

1. Write all the identities
2. Relation between roots and coefficient of Quadratic Polynomials.

Draw the border

4. All the formulae from all the Chapters must be covered from June 1, 2023 to June, 15,2023.
5. If any Chapter has more than three to four formulae, you can use two sheets for that Chapter.

SCIENCE

(Chemistry)

- 1) To study rate of evaporation of following three chemicals- Sanitizer, Nail Paint Remover (Acetone) and Water
- 2) To prepare a file on this comparative study under following headings-
Acknowledgement
List of contents
Introduction
Factors affecting rate of evaporation
Objective
Experiment 1
Experiment 2
Experiment 3
Experiment 4
Bibliography
- 3) Paste the pictures of the experiments done by you in your file.

Physics

- Q1. Details of **five** different trains are given below. **For each train**
- Plot and interpret the distance-time graph assuming that its motion between any two stations is uniform.
 - Write the names of the two stations having: -
 - (i) shortest distance
 - (ii) longest distance
- a) TRAIN – 1**

Train No.	Train Name	From Stations	Destination Station	Day
22404	NDLF PDY SP EXP	NEW DELHI	PUDUCHERRY	SUNDAY

S.No.	Station Code	Station Name	Route Number	Arrival Time	Departure Time	Halt Time (In min)	Distance	Day
1	NDLS	NEW DELHI	1	--	23:15	--	0	1
2	MTJ	MATHURA JN	1	00:41	00:43	02:00	141	2
3	AGC	AGRA CANTT	1	01:20	01:25	05:00	195	2
4	VGLJ	V LAKSHMIBAIJHS	1	04:30	04:38	08:00	410	2
5	BPL	BHOPAL JN	1	08:30	08:40	10:00	701	2

6	ET	ITARSI JN	1	10:15	10:25	10:00	793	2
7	NGP	NAGPUR	1	14:55	15:00	05:00	1090	2
8	BPQ	BALHARSHAH	1	18:55	19:00	05:00	1301	2
9	SKZR	SIRPUR KAGAZNGR	1	19:49	19:50	01:00	1371	2
10	WL	WARANGAL	1	22:48	22:50	02:00	1544	2
11	BZA	VIJAYAWADA JN	1	01:50	02:00	10:00	1751	3
12	GDR	GUDUR JN	1	06:38	06:40	02:00	2044	3
13	MS	CHENNAI EGMORE	1	09:30	09:45	15:00	2182	3
14	VM	VILLUPURAM JN	1	12:18	12:20	02:00	2341	3
15	PDY	PUDUCHERRY	1	13:15	--	--	2384	3

TRAIN – 2

Train No.	Train Name	From Stations	Destination Station	Day
20902	VANDE BHARAT EXP	GANDHINAGAR	MUMBAI CENTRAL	MONDAY

S.No.	Station Code	Station Name	Route Number	Arrival Time	Departure Time	Halt Time (In min)	Distance	Day
1	GNC	GANDHINAGAR CAP	1	--	14:05	--	0	1
2	ADI	AHMEDABAD JN	1	14:45	15:00	15:00	29	1
3	BRC	VADODARA JN	1	15:53	15:56	03:00	128	1
4	ST	SURAT	1	17:10	17:13	03:00	257	1
5	VAPI	VAPI	1	18:13	18:15	02:00	350	1
6	BVI	BORIVALI	1	19:32	19:34	02:00	490	1
7	MMCT	MUMBAI CENTRAL	1	20:25	--	--	520	1

b) TRAIN – 3

Train No.	Train Name	From Stations	Destination Station	Day
12262	CSMT DURONTO EX	HOWRAH JN	C SHIVAJI MAH T	FRIDAY

S.No.	Station Code	Station Name	Route Number	Arrival Time	Departure Time	Halt Time (In min)	Distance	Day
1	HWH	HOWRAH JN	1	--	05:45	--	0	1
2	TATA	TATANAGAR JN	1	08:48	08:58	10:00	250	1
3	BSP	BILASPUR JN	1	14:55	15:05	10:00	719	1
4	R	RAIPUR JN	1	16:35	16:37	02:00	829	1
5	NGP	NAGPUR	1	20:50	20:55	05:00	1131	1
6	BSL	BHUSAVAL JN	1	01:40	01:45	05:00	1524	2
7	CSMT	C SHIVAJI MAH T	1	08:15	--	--	1968	2

c) **TRAIN – 4**

Train No.	Train Name	From Stations	Destination Station	Day
12952	MMCT TEJAS RAJ	NEW DELHI	MUMBAI CENTRAL	WEDNESDAY

S.No.	Station Code	Station Name	Route Number	Arrival Time	Departure Time	Halt Time (In min)	Distance	Day
1	NDLS	NEW DELHI	1	--	16:55	--	0	1
2	KOTA	KOTA JN	1	21:30	21:40	10:00	465	1
3	NAD	NAGDA JN	1	23:57	23:59	02:00	690	1
4	RTM	RATLAM JN	1	00:30	00:33	03:00	731	2
5	BRC	VADODARA JN	1	03:40	03:50	10:00	993	2
6	ST	SURAT	1	05:13	05:18	05:00	1122	2
7	BVI	BORIVALI	1	07:40	07:42	02:00	1355	2
8	MMCT	MUMBAI CENTRAL	1	08:35	--	--	1384	2

d) **TRAIN – 5** The fastest train between your nearest railway station and Haridwar.

NOTE:

- To get train route you can use www.irctc.co.in
- Do this work in a graph notebook.
- Draw the simplified table from the train route and then plot the distance–time graph.

For Example:

S.No.	Station Name	Time	Distance
-------	--------------	------	----------

Biology

1. Make a project file on “*plant tissue*”.

(NOTE- Mention types and their functions with suitable diagrams)

Art integrated activity

Write a detailed report on the **biodiversity of Puducherry (mangrove forest)** and compare with **Uttarakhand (mountain forest)**.

Paste pictures along with report.

References:

[www.magnetbrains](http://www.magnetbrains.com), www.ncert.in

, [www.wikipedia](http://www.wikipedia.com).

Social Science

Art integration project:

1. Located and label the different administrative parts of Puducherry on map.
2. Write history of Puducherry in brief.
3. Write about the economic features of Puducherry.
4. Demographic and social figures: Pop, Literacy rate, sex ratio, Regional Communities with suitable graphs and pie charts.

Sources: Study IQ, Rajya Sabha T.V, history T.V , www.nso.nic.in, Wikipedia etc.

- 5.Fill important locations related to French Revolution in the physical map of France.
6. Make a small project on Indian Drafting Committee and Indian Constitution Design.
7. **Project work in geography:** Write about different Types of the vegetation Found in India and mark them on physical map of India.

Information Technology

Q1. Make a list of URL's(5 each) of e-commerce, education , social networking and news website. Show them in a PPT.

Q2. Create an interesting presentation on 'Wireless Computing' in 10 slides.

Q3 . Create a PowerPoint presentation of 5 slides and explain the following topics in slides:

1. Computer Network (1st slide)
2. Network Topologies (2nd slide)
3. Types of Topologies (3rd to 5th slides)

Have a great



VaCation!