



HOLIDAY HOMEWORK

SESSION 2023-24

ENGLISH

CLASS IX

1. ART INTEGRATED PROJECT

Prepare a PPT depicting similarities and variations between cultures and traditions of Arunachal Pradesh and Uttar Pradesh. (Not more than 10 slides)

- Prepare a project file for the same and write the content of slides in cursive
- Develop a cover page for the file
- Maintain an index page

2. Revise all the work done in class for Unit Test I.

ग्रीष्मावकाश - गृहकार्य 2023-24

हिंदी (085)

कक्षा 9

1) तुम कब जाओगे , अतिथि फिल्म देखकर उस पर समीक्षा प्रस्तुत कीजिए।

2) रहीम के दोहे वर्तमान में भी प्रासंगिक हैं, कैसे? दैनिक जीवन से उदाहरण देकर स्पष्ट कीजिए।

3) किसी हिंदी समाचार पत्र के संपदाकीय पेज से पाँच अपठित गद्यांश तैयार कीजिए, उन पर आधारित पाँच - पाँच बहुविकल्पीय प्रश्न बनाए।

ग्रीष्मावकाश गृहकार्य-2023-24

विषय-संस्कृत

कक्षा-9

1- गायत्री मन्त्र को हिन्दी अर्थ सहित लिखो ।

2-कोई भी एक संस्कृत की एक छोटी कहानी को नेट से खोजकर पढ़ो और उसे संस्कृत में ही लिखो ।

3-“विद्या” विषय पर कोई 5 श्लोक हिन्दी अर्थसहित लिखो जो आपकी पाठ्यपुस्तक में ना हो।

5-उकारांत गुरु शब्द, इकरान्तहरि शब्द के रूप लिखो।

6-नी, स्था, औरगम् धातु के रूप लटलकार, लृटलकार, लोटलकार, विधिलिङ्ग एवं लङ्लकार में लिखो

7-अपना परिचय संस्कृत में 5 वाक्यों में लिखो।

नोट- इस कार्य के आपको अंक भी दिये जाएँगे ।

SUMMER HOLIDAY HOME WORK OF MATHEMATICS FOR IX
NUMBER SYSTEM AND POLYNOMIALS

1. If $3x + 2y = 12$ and $xy = 6$, find the value of $9x^2 + 4y^2$.
2. Write the following cubes in the expanded form:
 - (i) $(3a + 4b)^3$
 - (ii) $(5p - 3q)^3$
3. If $x^2 + 1/x^2 = 27$, find the values of each of the following:
 - (i) $x + 1/x$
 - (ii) $x - 1/x^2$
4. If $x - \frac{1}{x} = 4$ then evaluate $x^2 + 1/x^2$
5. If $a + b + c = 15$ and $a^2 + b^2 + c^2 = 83$, find the value of $a^3 + b^3 + c^3 - 3abc$.
6. Factorize:
 - (i) $6ab - b^2 + 12ac - 2bc$
 - (ii) $9(2a - b)^2 - 4(2a - b) - 13$
7. If $x^3 + ax^2 - bx + 10$ is divisible by $x^2 - 3x + 2$, find the values of a and b .
8. Using factor theorem, factorize each of the following polynomials:
 - (i) $x^3 - 6x^2 + 3x + 10$
 - (ii) $2y^3 - 5y^2 - 19y + 42$
9. Which one is not a polynomial
 - (a) $4x^2 + 2x - 1$
 - (b) $x^3 - 1$
 - (c) $y^2 + 5y + 1$

11. Find the number of zeros of $x^2 + 4x + 2$.
12. Find the value of k , if $(x - 1)$ is a factor of $4x^3 + 3x^2 - 4x + k$.

14. If $x = \frac{\sqrt{3}-\sqrt{2}}{\sqrt{3}+\sqrt{2}}$ and $y = \frac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}}$, find the value of $x^2 + y^2 + xy$.

If $x = \frac{2-\sqrt{5}}{2+\sqrt{5}}$ and $y = \frac{2+\sqrt{5}}{2-\sqrt{5}}$, find the value of $x^2 - y^2$.

15. Determine rational numbers p and q if

$$\frac{7+\sqrt{5}}{7-\sqrt{5}} - \frac{7-\sqrt{5}}{7+\sqrt{5}} = p - 7\sqrt{5}q.$$

16. Simplify: $\frac{3\sqrt{2}}{\sqrt{6}-\sqrt{3}} + \frac{2\sqrt{3}}{\sqrt{6}+2} - \frac{4\sqrt{3}}{\sqrt{6}-\sqrt{2}}$

17. Show that: $\frac{1}{3-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-2} = 5$

18. If: $x = \frac{\sqrt{p+q} + \sqrt{p-q}}{\sqrt{p+q} - \sqrt{p-q}}$, then find the value of $qx^2 - 2px + q$.

19. If $x = 2$ and $x = 0$ are zeroes of the polynomial $2x^3 - 5x^2 + px + b$, then find the value of p and b .

20. Simplify and factorise $(a + b + c)^2 - (a - b - c)^2 + 4b^2 - 4c^2$.

COORDINATE GEOMETRY

- 1.. Name the quadrants in which following points $(3,0)$ and $(-9,-3)$.
2. Determine the graph of the equation $y = 2x-3$
3. Draw the graph of $y = 4x$. From the graph find the value y when $x = -2$
4. Draw the graph of $x - 10 = 0$. what type of graph is it?
5. Draw the graph of $y = -x$
6. The points $(-2,5)$ and $(3,-5)$ are plotted in xy planes. Find the slope and y intercept of the line joining the points.
7. Draw the graph of equation $3x + 6y = 12$. Find the coordinates of the point where the graph cuts the y -axis.
8. How does the graph of $y = mx$, depends on the value of m . Also draw graph when $m = 2,3$
9. In which quadrant will these points $(3,-5)$, $(-3,-1)$
10. Determine the slope and y -intercept of line $2x+3y+7 = 0$

LINEAR EQUATIONS IN TWO VARIABLES

1. Show that $x = 1, y = 3$ satisfy the linear equation $3x - 4y + 9 = 0$.
2. Is $(3, 2)$ a solution of $x + y = 6$?
3. Is $\left(2, \frac{8}{3}\right)$ a solution of $2x + 3y = 12$?
4. (i) Write the equation of x-axis.
(ii) Write the equation of y-axis.
5. Express $-2x + \frac{3}{2}y - 4 = 0$ in the form of $ax + by + c = 0$ and write the value of a, b and c.
6. Express $2x = 5$ in the form $ax + by + c = 0$ and find the value of a, b and c.
7. Write two solutions of $3x + y = 8$.
8. If $x = -1$ and $y = 2$ is a solution of $kx + 3y = 7$, find the value k.

PROJECT: Collect the data on sex ratio of the following states- Arunachal Pradesh & Meghalaya. Draw the graph of collected data. Elaborate about it in one page.

Note :1. You have to make separate note book, containing enough pages for doing this work.

2. Project will be done on the project file pages. Your project must have four pages as follows-

(i) Cover page (it includes School's name, Mathematics project, Topic, class and section)

(ii) Index

(iii) Introduction (What the project is about)

(iv) Main content and conclusion.

Parameter of evaluation of project:

1. Content
2. Presentation
3. Clarity and neatness
4. Accuracy
5. Understanding of concept

Holiday Homework.

(Science)

Class IX

Matter in our surroundings (chemistry)

. Assertion-Reason Type Questions

For following questions, two statements are given-one labelled Assertion (A) and the other labelled as Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below: (a) Both A and R are true and R is correct explanation of the assertion.

(b) Both A and R are true, but R is not the correct explanation of the assertion.

(c) A is true, but R is false

(d) A is false, but R is true

1 .Assertion. Matter is continuous like a sheet of glass.

Reason. All matter is made of tiny particles.

2. Assertion. The smell of hot sizzling food reaches us quickly.

Reason. Due to random continuous motion, the food particles mix quickly with the air particles and reach us

3.Assertion. Gases exert pressure. Reason. Gases diffuse quickly.

4.. Assertion. A punctured tyre becomes flat more easily in summer than in winter.

Reason. Rate of diffusion increases with temperature.

5. Assertion. The particles of a liquid are arranged in a regular pattern. Reason. Liquids have fixed volume but not a fixed shape.

6.Assertion, Ethanol boils at 351 K. Reason. It is a non-volatile liquid.

7.Assertion. Temperature remains constant during change of state. Reason. The heat energy supplied is used up in increasing the inter particle distances without increasing their kinetic energy.

8 Assertion. Two ice cubes pressed against each other join when pressure is released.

Melting point decreases with pressure.

9.. Assertion. Ice at 273 K is more effective in cooling than water at the same temperature.

Reason. Ice at 273 K has less heat content than water at the same temperature.

10. Assertion. Steam produces more severe burns than boiling water..

Reason. Steam at 373 K possesses more heat energy than boiling water.

11. Assertion. Air can be liquefied by cooling under pressure. Reason. Liquids have stronger interparticle forces of attraction and smaller interparticle distances than gases.

Motion (physics)

1. Assertion. Average velocity

$$\frac{\text{Initial velocity} + \text{final velocity}}{2}$$

Reason. This happens when velocity of the body is changing at a constant rate

2. Assertion. In uniform motion, the average and instantaneous velocities have the same value

Reason, In uniform motion, the velocity of the object increases uniformly,

3 .Assertion. Displacement of a body may be zero when distance travelled by it is not zero.

Reason. Displacement is a scalar quantity and distance travelled is a vector quantity

4. Assertion. A car moving with a speed of 35 m per s takes a turn in 5 seconds without changing its speed. The average

Acceleration during those 5 seconds is 7 m/s

Reason. Acceleration = $\frac{\text{change in velocity}}{\text{Time taken}}$

5. Assertion. Distance and displacement represent the same Thing

Reason. Both have same units.

6. Assertion. Distance is scalar.

Reason. Displacement is vector

7. Assertion. Distances can be added algebraically.

Reason. Displacement can be added vectorially

8. Assertion. When a body travels 100 m towards east first and then 30 m towards west, its displacement is 150 m.

Reason. Displacement is vector,

9. Assertion. When a body travels 100 m towards east first and then 30 m towards west, total distance travelled by the Body is 130 m.

Reason. Distance is scalar

10. Assertion. A body travels a distance of 100 m towards North and then 100 m towards South. The net displacement Of the body is zero. The net distance travelled by the body is 200 meter.

Reason. Distance is scalar and displacement is vector.

11. Assertion. Distance travelled by a body may not be zero even when its displacement is zero.

Reason. This is because displacement is vector and distance is scalar

12. Assertion. When final position of a body in motion coincides with its initial position, its displacement is zero. However, distance travelled is not zero.

Reason. Displacement is a vector.

13. Assertion. Displacement of a body may be zero, when distance travelled by it is not zero.

Reason. Displacement is a scalar quantity and distance travelled is vector.

14.Assertion. A car moving with a speed of 36 km/h takes a U-turn in 5 seconds without changing speed. Average acceleration during these 5 seconds is 4 m/s²

Reason. Acceleration rate of change of velocity.

Biology Ch -5 The structural and functional Unit of Life-Cell

1. Prepare a colourful clay model of Plant cell and Animal cell , highlight and Label various cell organelles.
2. Prepare an investigatory project on five flora exclusively found in Arunachal Pradesh and Uttar Pradesh . Mention their biological names characteristic featured and economic importance.

CLASS – IX
HOLIDAY HOMEWORK
(SESSION 2023-24) SOCIAL SCIENCE

1- Power Point Presentation on the topic-
‘Contribution of Indian Army towards G20 Presidency’-India G20-2023.

Guidelines for PPT-

Every student will prepare 20 slides on the topic using G20 background covering following points-

Slide1- Topic, Name of student, class & section

- a. History of G20
- b. Members
- c. Chair Rotation
- d. India G20 Presidency-theme, logo, agenda points
- e. Importance of G20 for India
- f. G20 meetings in India
- g. Major challenges

❖ ***Google form will be shared with students for uploading Power Point Presentation on G20 Summit 2023.***

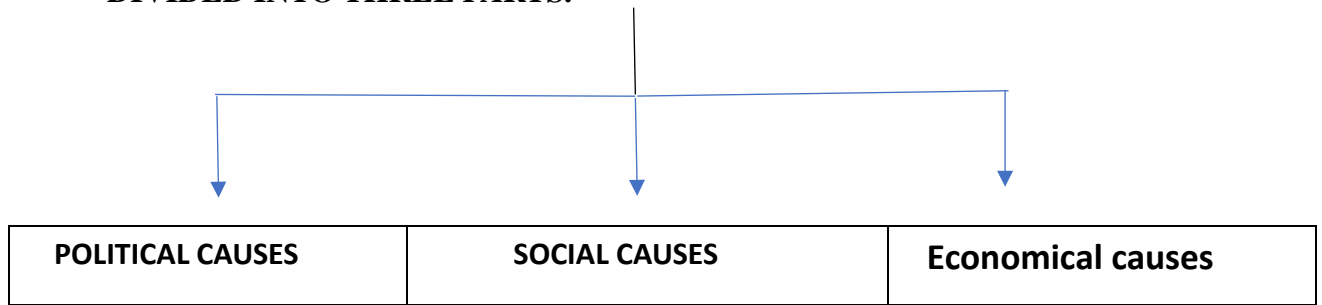
● **Instructions**

1. Use A4 Sheets
2. Make sure your work is neat and clean.
3. Use proper handmade drawings wherever required.
4. Understand the listed assignment very well.
5. Submit the holiday homework in a proper folder or file and make sure that your work is completed in all respect.

1-Many political reasons were responsible for the French revolution during 18th century. Imagine yourself as King Louis XVI and explain the reasons in detail.

On A4 SHEETS or drawing sheets write your answer : A. explain the reasons in detail that led to the French revolution. .

HINT- SITUATIONS THAT LED TO THE FRENCH REVOLUTION CAN BE DIVIDED INTO THREE PARTS.



2-AIL PROJECT: Prepare a PPT based on:- (any one)

Make a comparative study of Uttar Pradesh, Arunachal Pradesh and Meghalaya, and prepare a report on- any one....* only 8 slides only(including diagram or pictures, flow chart and information on the topics given below. Collect the data from secondary sources like newspaper and magazines). (Any one)

A. Major economic activities in Uttar Pradesh, Arunachal Pradesh and Meghalaya OR

B.Social issues... like health, education, poverty and unemployment.(any one)

1-Write an article (50 words) on A4 sheets or rule sheets :--

Discuss with your parents and write article on - (any one)

A. Land distribution in your village.

B. Problem faced by landless laborer in your village.

C. Health and education infrastructure.

D. Non farming activities in your village.

- 1. Prepare a file project ...on any one topic given below. of.(disaster management).The Project Report should be handwritten by the students themselves. The project file .. is of at least 12 to 15 pages.**
 - If required, students may go out for collecting data and use primary and secondary Resource to prepare the project.
 - Sequence should be..... Introduction, Content, Acknowledge, Meaning, Causes, datas or survey report, at least one case study of (any one place), Prevention and mitigation, Conclusion and Bibliography.

1. Flash floods are recurring phenomenon in India. Every year's hundreds of people lose their life and public and private property worth billions of rupees are destroyed. Flash floods are not confined to urban areas, there are incidents of flash floods in rivers as well. Explain in detail

causes of flash floods, areas prone to flash flood, preventive measures and life saving measures during flash floods

OR

2. Choose **any one** natural or any one manmade disaster and explain in detail its causes, areas prone to that disaster, preventive measures and life saving measures, during that disaster.

OR

3. How are children of educated parents different from those of uneducated parents? Give your opinion and reviews.

5. Make a beautiful flow chart on the common features of democratic government.

Map Exercise

MAKE A SEPRATE MAP COPY AND DO FOLLOWING

CH-1 HISTORY

On an outline **POLITICAL MAP OF FRANCE** locate the following places-

- a) Bordeaux
- b) Nantes
- c) Paris
- d) Marseilles

CH-1 GEOGRAPHY

On an outline **POLITICAL MAP** of India locate the following-

- a) India states with capitals
- b) Colour the states through which Tropic of cancer passes
- c) Standard Meridian (Location and labeling)

CH-2 GEOGRAPHY

On an outline **PHYSICAL MAP** of India locate the following-

- a) Mountain ranges- The karakoram, The Zasker, The Shivalik, The Aravali, The Vindhya, The Satpura, western and eastern Ghats.
- b) Mountain Peaks- K2, Kanchan Junga, AnaiMudi.
- c) Plateau- Deccan plateau , Chotta Nagpur plateau , Malwa Plateau.
- d) Coastal Plains – Konkan , Malabar, Coromandal & Northern Circar.

NOTE (activity)

THE DISTRIBUTION OF MARKS OVER DIFFERENT ASPECTS RELATING TO WORK

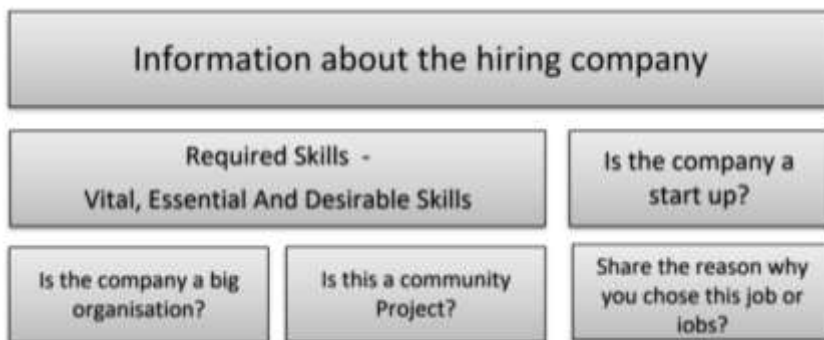
S. No.	Aspects	Marks
A	Content accuracy, originality and analysis	2
B	Presentation and creativity	2
C	Punctuality	1

Holiday Homework
Artificial Intelligence (Code: 417)
Class IX (2023-24)

- 1.) Job Advertisement for 2029: Make a Future Job Advertisement on A4 or A3 sized sheet and paste it in your classwork notebook. Mention what job are you recruiting for and what skill-sets do you expect in the candidate. Make a poster on A4 or A3 sized sheet with as much creativity as possible. It should be futuristic and should talk about the period 10 years in the future.

Hint:

- Search for current and emerging trends in employment to make a Future Job Advertisement.
- The job description is for a job which will exist ten years from now, i.e., the current date.
- To help you, the job advertisement must include the following information.



- 2.) AI for Good: Watch the video using the link: <https://youtu.be/vgUWKXVvO9Q>
Recommended: Watch a documentary on AI: "AlphaGo"
After watching the above content, kindly answer the following questions (Write in your classwork notebook):
Ques 1: What have you understood from the video?
Ques 2: What are your learnings from it?
Ques 3: What according to you are different ethical concerns surrounding AI?
- 3.) Play the following AI based online open source games:
- a. Link for Game 1 (Rock, Paper and Scissors): <https://rockpaperscissors-ai.vercel.app/>
 - b. Link for Game 2 (Semantis): <https://research.google.com/semantis/>
 - c. Link for Game 3 (Emoji Scavenger Hunt): <https://emojiscavengerhunt.withgoogle.com/>
 - d. Link for online climate tool: <https://artsexperiments.withgoogle.com/impactfilter/>
- After checking the above links, answer the following questions in your classwork notebook:
- Ques1: Write three things you learnt from the tool used above.
Ques 2: How do you think the above tools are AI enabled?
Ques 3: Did you face any difficulty while playing rock, paper, scissors and semantis?
Ques 4: List the winning strategy for the three games mentioned above

ARMY PUBLIC SCHOOL, MEERUT CANTT

SUBJECT: MARKETING AND SALES(412)

CLASS IX

HOLIDAY'S HOME WORK 2023-24

Project

Make a file incorporating a list of different goods used in your home/ schools/ parent's office and classify them on the basis of tangible/ intangible, durable/ non-durable and different marketing tools used by them to sell their product.

HOLIDAY HOME WORK

(PHYSICAL ACTIVITY TRAINER)

2023- 2024

CLASS: IX

Students are instructed to complete the following Holiday Home Work during Summer Break:

NOTE: DO IN A PROJECT FILE

1. Differentiate between
 1. Physical activity and Physical education
 2. Fine and Gross Motor
 3. Cognitive and affective domain
2. Plan 5 Physical Activities.
3. Prepare a project file of one Game/sport of your choice.

INFORMATION TECHNOLOGY HOLIDAY HOME WORK CLASS IX

(Data Entry and Keyboarding Skills)

Follow the instructions given below while writing your assignment:

1. Assignment is survey based, that means you can find the functions and appearance of the keys on the internet, understand its working and write down in your own words.
2. After Explaining the use of keys handmade images of the keys should be drawn.
3. Work should be neat and clean.

Explain the use of the following keys on your computer keyboard and name the keys associated with the group: (You can take the help from the internet to define the use of keys)

Draw and label the images of the particular keys also.

1. Alphanumeric Keys
2. Punctuation Keys
3. Alt key
4. Arrow keys
5. Shift or Alt Keys
6. Backspace Key
7. Caps lock Key
8. Ctrl Key
9. Delete Key
10. Enter key or Return Key
11. Esc Key
12. Function Keys
13. Numeric Keyboard

MULTIDISCIPLINARY PROJECTS

CLASS IX (2023-24)

TOPIC : EVEREST MY SUCCESS JOURNEY

COVER PAGE :

- SCHOOL NAME
- STUDENT NAME
- CLASS- SECTION
- ADM. NO

PAGE 1

Index

PAGE 2

Acknowledgement

PAGE 3

English

PAGE 4

Hindi

PAGE 5

Maths

PAGE 6

SCIENCE

PAGE 7

SOC.SCI.

SUBJECT	NATURE OF THE TASK
ENGLISH	Imagine you are Bijendra Pal write a diary entry for your experience climbing up to Mount Everest, that has changed you completely.
HINDI	संसार की सबसे ऊंची चोटी माउंट एवरेस्ट पर विजय प्राप्त करने के पश्चात अपनी खुशी को अंगदोरजी के साथ साझा करते हुए दोनों के बीच हुए काल्पनिक संवाद को लगभग 100 शब्दों में लिखो।
MATHS	Calculate distance of Everest from other peaks, make a bar graph on change in height of Everest every year.
SCIENCE	With reference to your experience of climbing up Mount Everest, describe the flora and fauna of the Himalayan region. Compare it with the flora and fauna of Uttar Pradesh and Arunachal Pradesh.
SST	Highest peaks of the world are located in the Himadri region of Himalayas. A. Analyse how Himadri Himalayas are different from Himachal and Shivalik Himalayas. The focus point of the study must be flora, fauna, weather conditions and Geology. B. Explain the life style of any two tribes living in Purvanchal Himalayas.