

Class : IX

(SUMMER HOLIDAYS' HOMEWORK)

(Session:2026-27)

Mathematics

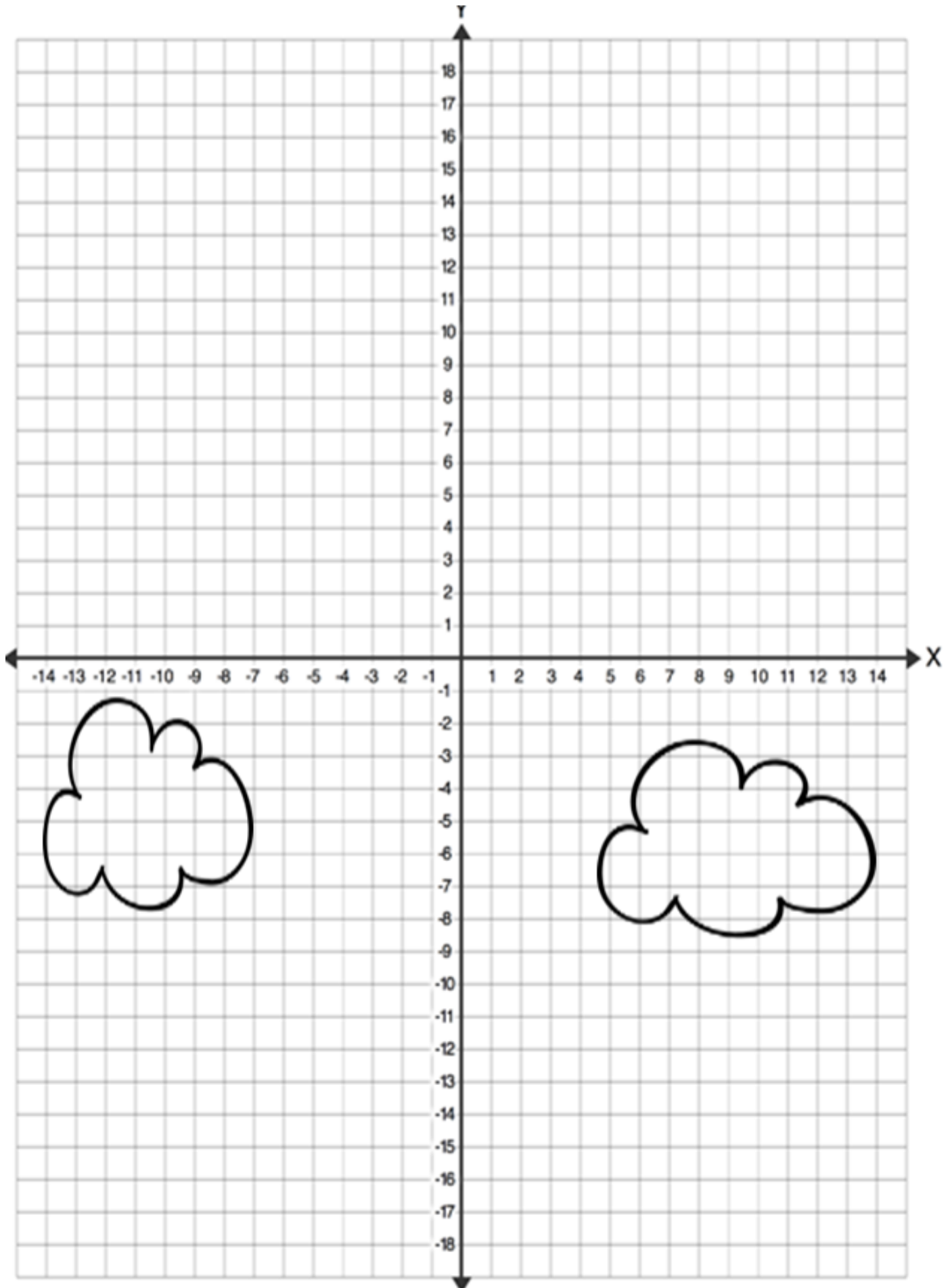
Activity-1

Read through the statement below. If you agree, circle the color in “**Agree**” column. If you disagree, circle the color in the “**Disagree**” column. Then connect the given points on the coordinate grid using the color you circled.

SUMMER PERSONALITY TEST

Statement	Agree	Disagree	Connect the points
I like Pastel Color	Yellow	Gray	(-12, 6) and (-12,0)
I like when the days get longer	Pink	Gray	(-14, 7) and (-14, 0)
I Like when it rains	Blue	Gray	(-9,-2) and (-8, 3)
I like when flower start to bloom	Pink	Gray	(-13,7) and (-10,14)
I enjoy gardening	Yellow	Gray	(-11, 4) and (-9, 8)
I enjoy going for walks in the sunshine	Yellow	Gray	(-8, -10) and (-6, 15)
I think flying a kite is fun	Pink	Gray	(-6, 17) and (0, 18)
I can spot 4-leaf clover	Green	Gray	(-8, -4) and (-7,0)
I like having a picnic	Yellow	Gray	(0,16) and (2,16)
I like the smell of flowers	Pink	Gray	(4, 17) and (8, 16)
I like seeing the trees become greener.	Green	Gray	(-6, 5) and (-4, 8)
I enjoy hearing the birds sing	Blue	Gray	(-7, 8) and (-3, 12)
I enjoy mowing the lawn	Green	Gray	(-3, 9) and (0, 10)
I enjoy going to parks	Pink	Gray	(11, 14) and (12, 11)
I like butterflies	Yellow	Gray	(5,14) and (6, 11)
I like basketball and cricket	Blue	Gray	(0, 13) and (2, 13)
I like to wear rubber boots	Blue	Gray	(7, 9) and (9,4)
I like playing in the mud.	Pink	Gray	(13, 7) and (14, 0)
I think baby ducks and chicks are cute.	Green	Gray	(2, 10) and (3, 9)
I enjoy cleaning.	Pink	Gray	(14, -1) and (14, -7)
I like the taste of honey.	Yellow	Gray	(10, 7) and (12, 0)
I like the sound of bees buzzing.	Yellow	Gray	(12, -2) and (12, -5)
I like the smell of freshly cut grass.	Green	Gray	(6, 6) and (8, 2)
I like to walk through buddies'	Blue	Gray	(10, 0) and (10, -4)
I like rainbows.	Green	Gray	(0, 8.5) and (9, -4)

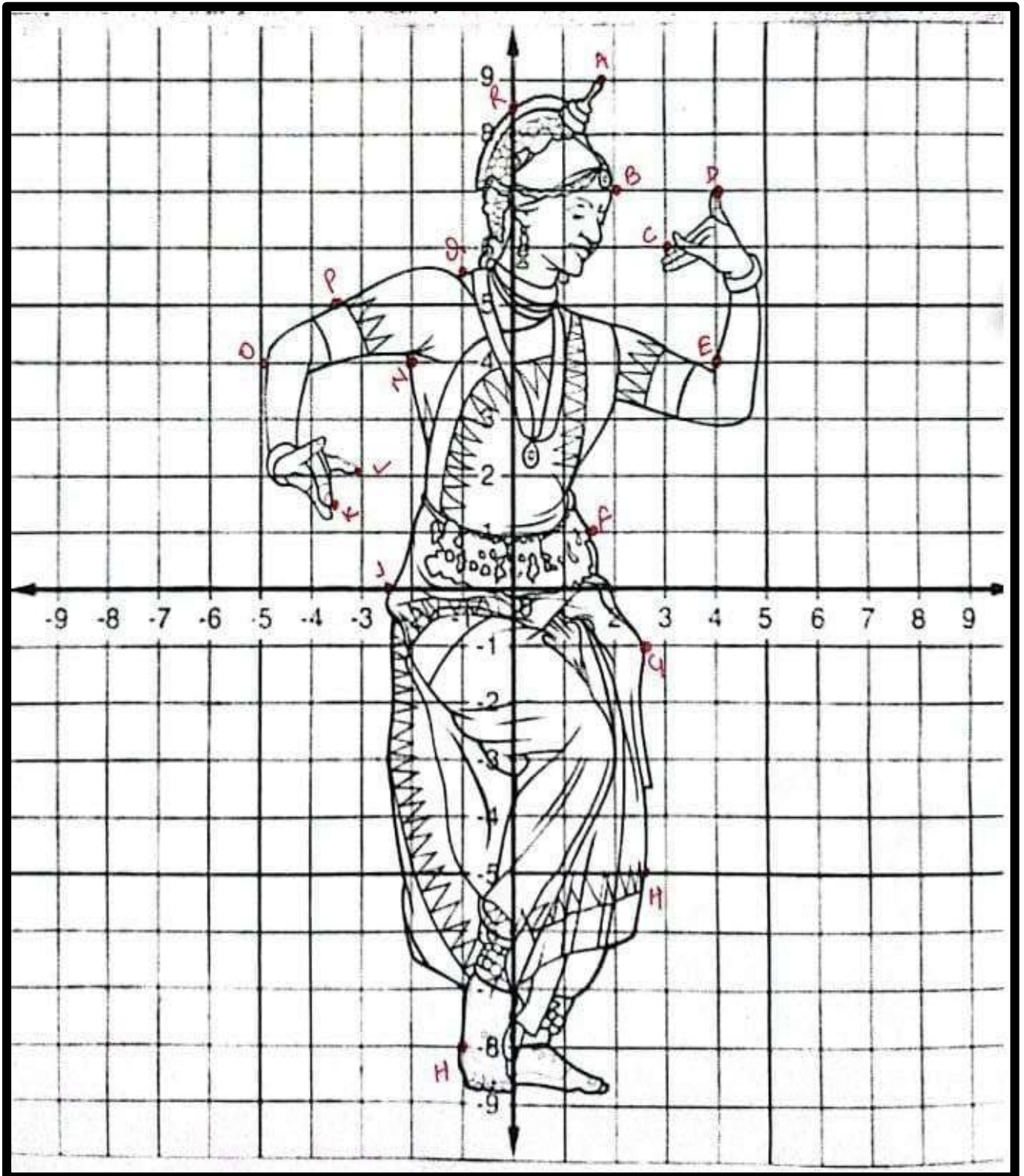
SUMMER PERSONALITY TEST



Activity-2

Instructions: During the summer vacations explore Famous dance of Odisha.

- Locate marked points in provided pictures.
- Write all marked points on a sheet of paper and segregate them as per different quadrants and axes
- Write in brief about above mentioned.



Coordinate Geometry

1. Which of the following points belong to x-axis?
A(3,-1), B (4,0), C(-2, 0), D(0,3), E(-2,-1), F (-4, 0), G (1,0)
2. A park in the shape of a quadrilateral ABCD with A (8, 3), B (0,-1), C (-2, 3) and D (6, 7) is developed with flowers and green plants. Plot the points. Name the shape of the park. Will you support that green be developed in your city near the schools and hospitals? Give reasons.
3. What is the mirror image of the point (3, 9) with respect to x-axis?
4. Plot the points A (3, 0), B (3, 3) and C (0, 3) in a Cartesian plane. Join OA, AB, BC and CO. Name the figure so formed and write its one property.
5. A point lies on x-axis at a distance of 9 units from y-axis. What are its coordinates? What will be its coordinates if it lies on y-axis at a distance of 9 units from x-axis?
6. The length of perpendiculars PM and PN drawn from a point P, on x-axis and y-axis are 3 and 2 units respectively. Find the coordinates of points P, M, and N.
7. Plot three points A, B and C which have same abscissa 4 but lie in I and IV quadrants and on x-axis respectively. Also plot mirror image of A in y-axis.

Linear equations in two variables

1. Is line $2x + y = 3$ passes from origin. Explain your answer.
2. Find the solution of linear equation $x + 2y = 8$ which represents a point on :
 - a. the x – axis
 - b.)the y – axis
 - c. The line parallel to x – axis and at a distance of 3 units above it.
3. A lending library has a fixed charge for first three days and an additional charge for each day thereafter. Neetu paid Rs. 21 for a book kept for five days. Write a linear equation which satisfies this data. Draw the graph for the same.

Computer

Make a poster on LibreOffice Writer on the topic of “Ways to Stay Stress-Free”

Include: Exercise ☐, Meditation ☐, Proper sleep ☐ in LibreOffice writer and paste printout in notebook
OR

Make a informative document in LibreOffice Writer on the topic of “Role of IT in Modern Life”

☐ Include:

- Introduction
- Uses of IT
- Advantages
- Conclusion

(1–2 pages with neat diagrams)

HINDI

प्रश्न-1 हिंदी पाठ्य पुस्तक - "गंगा" से काव्य खंड की कविता 'झाँसी की रानी' (सुभद्रा कुमारी चौहान) का अध्ययन करते हुए एक आकर्षक परियोजना कार्य तैयार करें, जिसमें विभिन्न तत्वों का समावेश नीचे दी गई। चरणबद्ध प्रक्रिया के अनुरूप हों।

☐ कवर पेज (1st पेज) परियोजना शीर्षक- "वीरांगना गाथा", आपका नाम, रोल नंबर, स्कूल का नाम, कक्षा, सत्र- (2026 27)।

□ जीवन परिचय व कालक्रम(2nd पेज) जन्म से लेकर वीरगति (मृत्यु) तक की प्रमुख घटनाओं को एक टाइमलाइन(Time line) के आधार पर सृजनात्मक रूप से प्रदर्शित करें।

□ काव्य रस की अनुभूति(3rd पेज) कविता की अपनी पसंदीदा पैराग्राफ पंक्तियों(4-5) को लिखें और उसका भाव पक्ष और कला पक्ष स्पष्ट करते हुए बताएं कि यह पंक्तियां आपको क्यों प्रेरित करती हैं ?

□ ऐतिहासिक मानचित्र कार्य(4th पेज) भारत के मानचित्र पर उन केन्द्रों को चिन्हित करें जहाँ 1857 की क्रांति का प्रभाव था।

□ तुलनात्मक अध्ययन(5th पेज) "कल की रानी और आज की रानी" विषय पर संक्षिप्त अनुच्छेद लिखें, जिसमें झाँसी की रानी के गुणों की तुलना आधुनिक क्षेत्र की महिलाओं से की गई हो।

□ रचनात्मक कार्य (6th पेज) यदि आप उस समय के एक सैनिक होते तो रानी लक्ष्मी बाई के साहस को देखकर आप अपने मित्र को क्या पत्र लिखते हैं? एक पत्र तैयार कीजिए।

□ चित्रों और रंगों से सजाइए।

□ यह कार्य A4 शीट पर करें और एक सुंदर एवं आकर्षित फाइल तैयार करें।

अंक योजना □ □ □

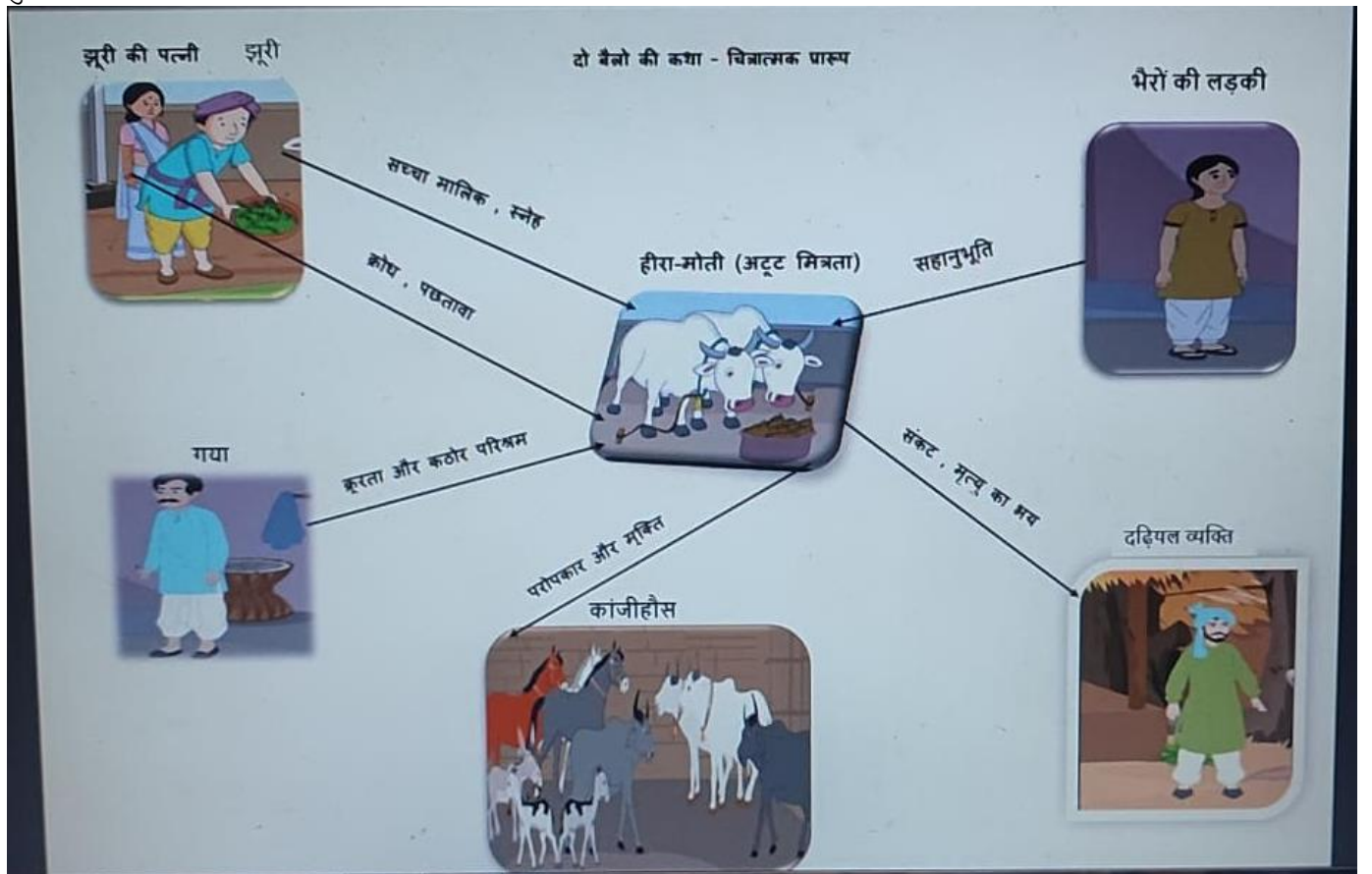
प्रस्तुतीकरण- 5 अंक

विषयवस्तु - 5 अंक

चित्रात्मक और रचनात्मक कार्य - 5 अंक

भाषा शैली - 5 अंक।

प्रश्न-2*हिंदी पाठ्य पुस्तक गंगा के पाठ-1 दो बैलों की कथा से एक पात्र संबंधित चार्ट का निर्माण करें जो नीचे दिए गए चरणबद्ध तरीके के अनुरूप हो।



शीर्षक:- दो बैलों की कथा: चित्रात्मक वर्णन।

□ चरण:- चार्ट के मध्य (बीच) में हीरा - मोती का चित्र बनाइए। नाम लिखें तथा उसके बाद एक गोल बनाकर उसमें 'अटूट मित्रता' और 'मूक भाषा' नामक शब्द लिखिए।

□ चरण:- 2 चार्ट के ऊपर की ओर झूरी का चित्र बनाइए।

एक रेखा के माध्यम से हीरा मोती से जोड़ें। उस रेखा पर 'स्नेह' और 'सच्चा मालिक' लिखें।

- ☐ चरण:-3 झूरी के पास ही उसकी पत्नी का चित्र बनाइए। उसके पास लिखे 'क्रोध' और बाद में पछतावा।
- ☐ चरण:-4 चार्ट के एक तरफ गया का चित्र बनाइए। इसे हीरा मोती से जोड़ते हुए 'क्रूरता' और 'कठोर परिश्रम' लिखें। गया के पास ही भैरव की लड़की का चित्र बनाइये उसे हीरा मोती से जोड़ते हुए 'रोटी खिलाना' और 'सहानुभूति' लिखें।
- ☐ चरण:-5 नीचे की तरफ कसाई (दड़ियल व्यक्ति) और काँजीहौस के अन्य जानवर दिखाइए। हीरा मोती से कसाई की ओर जाती रेखा पर 'संकट' और 'मृत्यु का भय' लिखें जबकि अन्य जानवरों की ओर जाती रेखा पर 'परोपकार' और 'मुक्ति' लिखें।
- ☐ अंत में पूरे चार्ट को तीरों से जोड़कर कहानी का प्रवाह को स्पष्ट करें।
- ☐ पात्रों के स्वभाव को दर्शाने के लिए अलग-अलग रंगों का प्रयोग करें।
- जैसे:- सकारात्मक पात्र- हरा रंग नकारात्मक पात्र - लाल रंग।

ENGLISH

Q1. Character & Perspective

☐ (Step into the Character's Mind)(5 marks)

*Choose any one character from your book and write a diary entry in a proper format(120 words) from that character's point of view

OR

*Rewrite one key scene by changing the ending .

Instructions

*Use imagination and creativity.

Rubrics:

Creativity – 2 Marks

Expression & Ideas – 2 Marks

Presentation – 1 Mark

OR

Q 2. Think & Express (5 Marks)

Answer any one:

1. How does any chapter from Kaveri reflect real-life challenges faced by old aged people today?
2. Which value (honesty, courage, empathy) is most important according to you? Support your answer with a textual reference.

Instructions:

*Give clear reasons , examples and

Support your ideas with references from the text.

Maintain word limit.,(100-120)

☐ Rubrics:

Understanding of Topic – 2 Marks

Critical Thinking – 2 Marks

Language & Presentation – 1 Mark

Worksheet

Q1. Edit the following passage by replacing the incorrect word with the correct one:

3 Marks

Sentence	Incorrect	Correct
A. Children love picnics and outings of their parents	_____	_____
B. though they are equally happier doing things with	_____	_____
C. them around the house. A parent may make	_____	_____
D. his child feels special by following some simple	_____	_____
E. rituals. Bedtime stories, the game of cards or	_____	_____
F. simply talking and laugh together before going to	_____	_____ bed
some give children a wonderful sense .		

Q2. Here are some Idioms and phrases. Write their meanings in the worksheet and make sentences using these idioms.

5 Marks

1. To lose heart _____
2. For the sake of _____
3. A flying start _____
4. From pillar to post _____
5. A laughing stock _____

Q3. The sentences given below are in Direct/Indirect speech. From the given alternatives, choose the one which best expresses the given sentence in Indirect/Direct speech: 7 Marks

A. The secretary said, "Is Mr. Fisher in his office?"

- i) The secretary said that if Mr. Fisher was in his office.
- ii) The secretary enquired if Mr. Fisher was in his office.
- iii) The secretary enquired that if Mr. Fisher was in his office.
- iv) The secretary asked if Mr. Fisher had been in his office.

B. The General said, "Bravo! Well done, my soldiers".

- i) The General told the soldiers that they had done well.
- ii) The General applauded his soldiers saying that they would do well.
- iii) The General applauded his soldiers for their excellent job.
- iv) The General applauded his soldiers saying that they had done well.

C. He said, "If I had the key with me, I could give you the solution".

- i) He said that if he had the key with him, he could give him/her the solution
- ii) He said if he could have the key with him, he would give him/her the solution.
- iii) He told that if he could have the key with him, he would give him/her the solution.
- iv) He said that if he have had the key with him, he could have given him/her the solution

D. He said to the interviewer, "Could you please repeat the question?"

- i) He requested the interviewer if he could please repeat the question.
- ii) He requested the interviewer to please repeat the question.
- iii) He requested the interviewer to repeat the question.
- iv) He requested the interviewer if he could repeat the question

E. The salesman said, "Are you interested in the scheme?"

- The salesman said that if I was interested in the scheme..
- The salesman said that if I were interested in the scheme.
- The salesman asks if I am interested in the scheme.
- The salesman asked me if I was interested in the scheme.

F. The teacher said, "The wind is a renewable energy source."

- i) The teacher said that the wind was a renewable energy source.
- ii) The teacher said that the wind is a renewable energy source.
- iii) The teacher told that the wind is a renewable energy source.
- iv) The teacher tells that the wind was a renewable energy source.

G. "Alas! It can't be this bad." He said.

- i) He exclaimed with sorrow that that couldn't be that bad.
- ii) He grieved that it couldn't be that bad.
- iii) He said that it was really that bad.
- iv) He said with sorrow that that was bad.

SOCIAL SCIENCE

Topic: Recent Assembly Elections in Five Indian States

Prepare an informative and analytical project file on the recently conducted Assembly Elections in any **five Indian states**. Through this activity, you will develop skills of **research, data interpretation, comparison, critical thinking, and understanding of democratic processes in India**.

Your project should include:

1. Understanding Elections

- Explain **what Assembly Elections are**.
- Describe **why elections are important in a democracy**.
- Mention how elections help citizens participate in governance.

2. Identification of States

- Select **any five Indian states** where Assembly Elections were recently held.
- Mention the **name of the state and election year**.

3. Political Parties and Participation

- Identify the **major political parties** that contested in each state.
- Add **party symbols** with labelled drawings, pictures, or cuttings.
- Briefly mention the role of political parties in elections.

4. Election Results and Interpretation

For each selected state, include:

- **Winning party and Chief Minister**
- **Number of seats won by major parties**
- **Voter turnout percentage**

After presenting the data, write **2–3 lines analysing what the results show**.

5. Historical Comparison

- Compare the **latest election results with the previous Assembly Election** in the same states.
- Identify any **major political change, shift in voter preference, or emerging trend**.

NOTE: Creative Presentation: Use maps, newspaper cuttings, slogans, charts, coloured headings, and simple infographics to make your project visually meaningful.

Instructions

- **Handwritten project preferred**
- Use **neat presentation and proper labelling**
- Mention **sources of information** (newspapers, Election Commission website, news reports, etc.)
- Project should be **6–8 pages** with visuals, charts, and analysis.

Science

CHEMISTRY

Q1. Perform chromatography at home using simple paper to separate different coloured substances and prepare a report including

1. Aim of Experiment
2. Principle of Chromatography
3. Materials Used
4. Procedure with Pictures
5. Observation Table
6. Pasted Chromatography Paper (**Any Two**)

A. Leaf Pigment Chromatography

1. Crush green leaves to make extract.
2. Draw a pencil line 2 cm above the bottom of paper.
3. Put a small spot of leaf extract on the line.
4. Place the paper in a jar containing solvent.
5. Ensure the spot remains above solvent level.
6. Observe colour bands formed.
7. Paste the chromatography paper in the file.

B. Ink Chromatography

1. Put a small dot of ink on chromatography paper.
2. Place in solvent carefully.
3. Observe different coloured bands.
4. Paste the dried chromatography strip.

C. Medicine Colour Separation (Optional)

1. Dissolve coloured medicine coating in water.
2. Repeat chromatography steps.
3. Observe separated colours.

OBSERVATION TABLE		
Substance Tested	Colours/Components Observed	Conclusio
Leaf Extract	Green, yellow	Different pigments present
Ink	Blue, black	Ink contains many dyes

Q2. Answer the Following:

1. A student says, “Every mixture can be separated using filtration.” Do you agree? Give reasons with examples.
2. Why is separating pollutants from water becoming more difficult nowadays? Suggest solutions.
3. If salt completely dissolves in water, how can you prove it is still present?
4. Why can't oil be separated from water using filtration?
5. Imagine you are stranded on an island with seawater only. How would you obtain drinking water using separation techniques?
6. Why is it difficult to separate sugar from milk after dissolving it?
7. If milk appears uniform, why is it considered a colloid and not a true solution?

PHYSICS

1. Plan a long distance family trip .Take initial and final readings of the odometer of your vehicle and find the average speed of the journey and also record the maximum speed acquired during the journey.
2. Draw the speed time graph of an object at 10 different instances and tabulate it. Using this table and graph identify the type of motion as uniform or non- uniform.
3. A motorcyclist drives from A to B with a uniform speed of 30 km h^{-1} and returns back with a speed of 20 km h^{-1} . Find its average speed and average velocity over the entire trip.
4. A farmer moves along the boundary of a square field of side 10 m in 40 s. What will be the magnitude of displacement of the farmer at the end of 2 minutes 20 seconds from his initial position?
5. During an experiment, a signal from a spaceship reached the ground station in five minutes. What was the distance of the spaceship from the ground station? The signal travels at the speed of light, that is $3 \times 10^8 \text{ ms}^{-1}$.
6. A particle is moving in a circular path of radius r. Find the displacement after half a circle .What should be the distance travelled?

Biology

Chapter: Cell – The building blocks of life.

Activity 1: Infographic on Cell Organelles

Objective:

- To understand the structure and functions of different cell organelles.
- To improve visual learning and presentation skills.

Steps:

Create a colourful info graphic/chart including:

- *Cell organelles:
- *Nucleus
- *Mitochondria
- *Endoplasmic Reticulum
- *Golgi Apparatus
- *Vacuole
- *Lysosome
- *Chloroplast

1. Simple labelled diagrams

2. Function of each organelle
3. One interesting fact about each organelle

OR

Activity 2: “Journey Inside a Cell” Comic Strip

Objective:

*To learn cell organelles in an interesting storytelling manner.

**To enhance imagination and scientific understanding.

Steps:

Create a comic strip/story where a tiny character travels inside a cell and meets different organelles. Include:

1. Minimum 6–8 comic panels
2. Dialogues of organelles explaining their functions
3. Colourful illustrations
4. Scientific accuracy with creativity