

**CLASS: IX**  
**HOLIDAYS HOMEWORK 2024-25**

**BIOLOGY**

1. Revise Chapter-5-The Fundamental Unit of Life from the textbook and the notebook.
2. Do the Assignment Questions of Ch-5 on A4 sized sheets. (Only the subjective questions need to be done). The Assignment questions will be shared in the class whats app group.
3. Draw a neat, coloured and well labelled diagram of a plant cell **or** an animal cell on A4 sized sheet.
4. Write the following Practical in your Bio Practical file and draw the relevant diagrams:
  - ❖ Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells and to record observations and draw their labeled diagrams.

[https://docs.google.com/document/d/1Kw2TosMs4npOwBPiSCp8\\_fOP0YGbpzeeIZalcAVLDXM/edit?usp=sharing](https://docs.google.com/document/d/1Kw2TosMs4npOwBPiSCp8_fOP0YGbpzeeIZalcAVLDXM/edit?usp=sharing)

(Link for the Practical)

5. **Activity:** Consider a cell like your school. Each part of the cell (school) has responsibilities that must be done and certain organelles (people) to do them. Identify the functions of the following parts of the cell then identify which person does the same job.

One is done as an example to follow:

Cell Organelle/ Part of a cell	Function	Part of School that has a similar function.
Cell Membrane	Controls what goes in and out of the cell	Front office

S. No	Cell Organelle/ Part of a cell	Function	Part of School that has a similar function
1	Mitochondria		
2	Nucleus		
3	Ribosomes		
4	Cytoplasm		
5	Golgi bodies		
6	Cell wall (Only in plant cell)		

**Art Integration activity (10 marks activity)**

- Research on the Biodiversity of Lakshadweep Islands/Andaman and Nicobar Islands and do a comparative study with the Biodiversity of Delhi. Make a **foldable scrap file/e-magazine** with a creative cover, index, articles, pictures, bibliography and conclusion. A link to create a foldable scrap file is provided as a reference. You can design in your own creative manner.

<https://youtu.be/gVcJFiaJkY>

- Andaman & Nicobar Islands are home to a tenth of India's fauna species even though comprising only 0.25% of the country's geographical area. Research on the statement and do a comparative analysis with the fauna found in Delhi by creating a **photostory with minimum 25-30 photos or an e-magazine**

#### **Rubrics:**

- Content- 3 marks
- Relevance- 3 marks
- Creativity- 2 marks
- Timely Submission- 2 marks

**Note:** The groups for Art Integration will be made and the topics will be allotted. The list will be posted in the class whatsapp group.

## **PHYSICS**

### Activity

1. Summer vacation is the time to visit your near and dear ones. In any one trip made by you, observe the speedometer and odometer of the vehicle and record the reading of both the devices every 5 minutes. Continue this exercise for the next 30 minutes. Plot the distance-time and speed-time graph for your motion. Identify the type of motion and also calculate the acceleration and the distance traveled by your vehicle from the speed-time graph.

Rubrics

Accuracy- 2

Presentation-2

Timely submission -1

### Assignment

2. A bus starting from rest moves with a uniform acceleration of  $0.1\text{m/s}^2$  for two minutes. Find the speed acquired by the bus.

3. A car traveling at  $22.4\text{ m/s}$  skids to a stop in  $2.55\text{ s}$ . Determine the skidding distance of the car.

4. A particle is moving in a circle of diameter  $5\text{m}$ . Calculate the distance covered and the displacement when it completes 3 revolutions.

5. A body travels a distance of  $15\text{ m}$  from A to B and then moves a distance of  $20\text{ m}$  at a right angle to AB. Calculate the total distance traveled and the displacement.

6. An object is moving in a circle of radius 'r'. Calculate the distance and displacement  
(i) when it completes half the circle

(ii) when it completes one full circle.

7. Velocity (m/s)	20	20	10	20	0
Time (s)	0	5	7	10	15

The above table shows the velocity of the motorbike at various intervals of time. Plot a velocity-time graph. Calculate:

- (a) deceleration between 5s and 7s
- (b) acceleration between 7s and 10s
- (c) deceleration between 10s and 15s
- (d) total distance traveled by the motorbike in 15s.
- (e) average velocity of the motorbike.

8. Vishnu swims in a 90m long pool. He covers 180m in one minute by swimming from one end to the other and back along the same straight path. Find the average speed and average velocity of Vishnu.

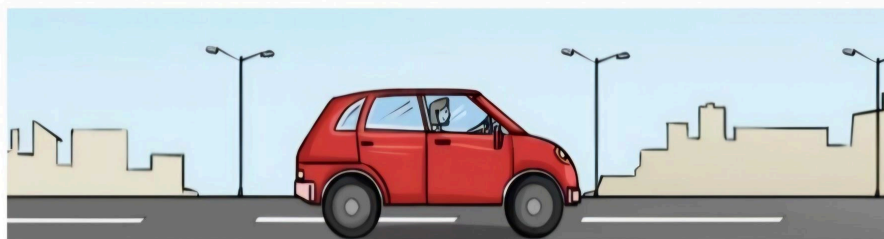
9. The length of the minute hand of a clock is 5 cm. Calculate its speed.

### Case Study

9. Distance and displacement are two quantities that seem to mean the same but are different with different meanings and definitions. Distance is the measure of “how much distance an object has covered during its motion” while displacement refers to the measure of “how far is the object actually from the initial point.” Using this data answer the following questions.

- a) Kapil travels 20 km North but then comes back to South for 40 km to pick up a friend. What is Kapil’s total distance?
- b) Rahul travels 20 km East but then comes back to West for 10 km. Find displacement.
- c) Define distance and displacement of a particle.

10. One day Rahul decided to go to his office by his car. He is enjoying driving along with listening to the old songs. His car is moving along a straight road at a steady speed. On a particular moment, he notices that the car travels 150 m in 5 seconds.



- a) What is its average speed?
- b) How far does it travel in 1 second?
- c) How far does it travel in 6 seconds? d) How long does it take to travel 240 m?

## ART INTEGRATION (2024-25) - LAKSHADWEEP, ANDAMAN & NICOBAR ISLAND

### SCIENCE TOPICS

#### Group 1 & 7 PHYSICS

Study the musical instruments of Lakshadweep, Andaman & Nicobar. Make a magazine to show the historical importance and physics involved in the working of these instruments.

Rubrics:

Content- 3 marks  
Relevance- 3 marks  
Creativity- 2 marks  
Timely Submission- 2 marks

### **Group 2. PHYSICS**

Study about the energy resources of Lakshadweep, Andaman & Nicobar. Make a photo story to show the energy resources and projects, the scope of use of renewable sources and the initiatives taken to fulfill the energy requirement of the place.

Rubrics:

Content- 3 marks  
Relevance- 3 marks  
Creativity- 2 marks  
Timely Submission- 2 marks

### **Group 3 & 8 CHEMISTRY**

Lakshadweep/Andaman and Nicobar has witnessed a variety of climate change initiatives to nurture the environment. Make a digital scrapbook or Project file(Introduction,Recent Developments,Innovative techniques to control climate change,preventive measures and Conclusion ) observing the climate change initiatives taken in Lakshadweep/Andaman and Nicobar and compare the same with the initiatives taken in Delhi.

### **Group 4. CHEMISTRY**

The chemical industry in India is highly diversified, covering a lot of commercial products. Draft a case study in the form of Project report (using pictures, data, graphs, pictorial representation) observing how the issue of sustainability is hurting the progress of chemical sectors, taking due note of how Lakshadweep/Andaman & Nicobar islands has prioritized climate change initiatives.

### **Group 5 & 9 BIOLOGY**

Research on the Biodiversity of Lakshadweep Islands/Andaman and Nicobar Islands and do a comparative study with the Biodiversity of Delhi. Make a foldable scrap file/e-magazine with a creative cover, index, articles, pictures, bibliography and conclusion. A link to create a foldable scrap file is provided as a reference. You can design in your own creative manner.

<https://youtu.be/gVcJFiaJkY>

Rubrics:

Content- 3 marks  
Relevance- 3 marks  
Creativity- 2 marks  
Timely Submission- 2 marks

### **Group 6. BIOLOGY**

Andaman & Nicobar Islands are home to a tenth of India's fauna species even though comprising only 0.25% of the country's geographical area. Research on the statement and do a comparative analysis with the fauna found in Delhi by creating a photo story with minimum 25-30 photos.

Rubrics:

Content-	3 marks
Presentation and Creativity-	3 marks
Organisation of the content-	2 marks
Timely Submission-	2 marks

## CHEMISTRY

1. Chemistry Activities- Class IX

A) **SURVEY** – Conduct a survey of your home and make a list of various materials which are commonly used in daily life. Classify these materials into pure substances and mixtures. Further, classify the mixtures into homogeneous and heterogeneous on the basis of their appearance. Prepare a written report..

B) **COMIC STRIP** – To create a pictorial representation or comic strip of matter around us pure (chemical composition of matter). The pictures need not be hand drawn; they can be cut outs and collages and along with the pictures, and write two to three lines which describe the pictures.

OR

Design a **Comic Strip** depicting **Importance of Symbols / formulas of atoms and molecules** with colourful illustrations and relevant facts using Ms Word / on an A3 size sheet not more than 6-8 dialogue boxes. Take out the print of the comic strip on an A4 sheet.

**SURVEY AND PHOTOSTORY TO BE DONE IN A-4 SIZE COLOURED SHEETS.**

2. **ART INTEGRATION PROJECT-**

**CHEMISTRY(only for group 3, group 4 & group 8 students)**

1. Lakshadweep/Andaman and Nicobar has witnessed a variety of climate change initiatives to nurture the environment. Make a **digital scrapbook or Project file** (Introduction,Recent Developments,Innovative techniques to control climate change,preventive measures and Conclusion ) observing the climate change initiatives taken in Lakshadweep/Andaman and Nicobar and compare the same with the initiatives taken in Delhi.
2. The chemical industry in India is highly diversified, covering a lot of commercial products. Draft a **case study in the form of Project report** (using pictures, data, graphs, pictorial representation) observing how the issue of sustainability is hurting the progress of chemical sectors, taking due note of how Lakshadweep/Andaman & Nicobar islands has prioritized climate change initiatives and compare the same with the initiatives taken in Delhi

**Rubrics:**

- Content- 3 marks
- Relevance- 3 marks
- Creativity- 2 marks
- Timely Submission- 2 marks

**NOTE:**

1. The project must be prepared by the student in an innovative way.
2. It should be handwritten or Digital ( Take out the print on an A4 sheet )
3. Paste diagrams/ pictures /photos related to the topic.
4. Use an A4 size sheet

3. Revise and prepare 1 chapter for UT-II.

**ASSIGNMENT TO BE DONE IN CHEMISTRY NOTE BOOK**

4. Do the chemistry **Assignment** based on **Matter in our surroundings..**
  1. Explain the characteristics of the particles of matter with the help of a diagram.
  2. Pressure on the surface of a gas is increased. What will happen to the inter particle Forces?
    3. What happens when a liquid is heated?
    4. A gas can exert pressure on the walls of the container. Assign reason.
    5. Convert the following temperature to Kelvin scale (a)  $100^{\circ}\text{C}$  (b)  $37^{\circ}\text{C}$
    6. Define latent heat of fusion and latent heat of vaporisation.
    7. What will happen to the melting point temperature of ice if some common salt is added to it? Justify your answer.
    8. What is the physical state of water at  $250^{\circ}\text{C}$ ,  $100^{\circ}\text{C}$ ,  $0^{\circ}\text{C}$ ?
    9. Explain why temperature remain constant during the change of state of any Substance?
      10. Do we sweat more on a dry day or humid day? Justify your reason.
      11. Why do we see water droplets on the outer surface of a glass containing ice cold Water?
        12. Convert the following temperature to the Kelvin scale (a)  $25^{\circ}\text{C}$  (b)  $373^{\circ}\text{C}$
        13. How will you show that air has maximum compressibility?
        14. Liquids generally have lower density as compared to solids. But you must have observed that ice floats on water. Why?
        15. State the effect of (i) surface area (ii) nature of the liquid on the rate of evaporation
        16. Is it possible to liquify atmospheric gases? If yes, suggest a method.
        17. What is meant by evaporation? What are the factors on which the rate of Evaporation depends upon?
          18. How does evaporation cause cooling?

**ARTIFICIAL INTELLIGENCE****NOTE:**

- **All the activities are to be placed inside a (punched) file.**
- **Make an attractive first page (with your name, class, section, subject) for your file using suitable pictures related to AI.**
- **Follow the instructions carefully.**

**Do the following Portfolio activities on coloured (ruled/plain) A4 size sheets:**

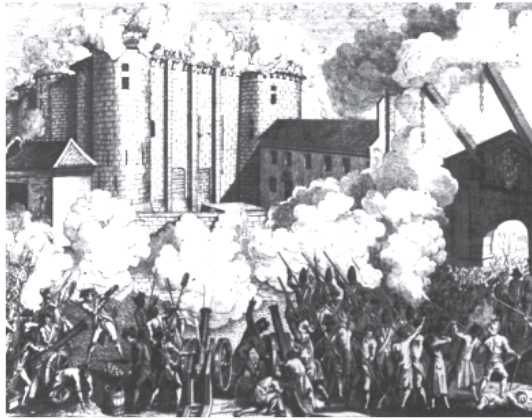
1. Play the following games and paste the screenshots of your scores on A4 size sheet. Also, write the AI Domain on which the game is based upon along with your observation about the game in 30-40 words.
  - a. [Rock Paper Scissors with AI \(rockpaperscissors-ai.vercel.app\)](https://rockpaperscissors-ai.vercel.app)
  - b. <https://research.google.com/semantris/>
  - c. <https://quickdraw.withgoogle.com/>
2. Research on present AI trends in the Healthcare sector and write in 120-150 words about how AI has revolutionized the healthcare sector. List real life examples to support your answer.
3. Design a Poster on the topic: “The Role of AI in Smart Cities”. Use the software <https://www.canva.com/> to design your poster online and paste the printout of your poster.
4. Play the game of Moral Machine using the link: <https://www.moralmachine.net/> and decide what is ethical and what is not for a given scenario of a driverless car. Paste your results and write about the impact of our morals on AI machines in 50-60 words.
5. Explore the “AI for Ocean” experiment (Based on SDGs) using the link: <https://code.org/oceans>. Write a description about the experiment in 70-100 words (Include the aspects like Machine learning-how it works, Importance of data, pattern recognition, etc.) Paste the certificate generated at the end in your file.

## **COMPUTER APPLICATIONS**

1. Create a document on the topic “Computer Viruses”. Include information like Types of Virus, Symptoms of Virus, Examples of Virus, How they affect our computers, etc. Apply relevant Formatting and Editing effects to make it attractive. Also, add relevant pictures.
2. Revise the chapter: Cyber Security covered in class.

## **HISTORY AND POLITICAL SCIENCE**

### **IMAGE BASED EXERCISES (For Portfolio)**



A.

**INSTRUCTIONS**

**PASTE THE PASSAGE GIVEN ABOVE. YOU MAY DRAW/TRACE ANY OTHER IMAGE OF THE FORTRESS PRISON ALSO**  
Do questions given in class.

**B. PICTORIAL EXPRESSION OF THE ESTATE SYSTEM -**

**INSTRUCTIONS - Draw/Paste the image and answer the following questions:**



a. Which estate is carrying the other two estates on his back?

\_\_\_\_\_

b. Why do you think the author chose to draw the estate system like this?

\_\_\_\_\_

\_\_\_\_\_

c. Which estate would you be in if you were transported to France?

\_\_\_\_\_

d. Would you be happy or unhappy? Give reasons for your answer.

\_\_\_\_\_



C.

Source E

**The life of a revolutionary woman – Olympe de Gouges (1748-1793)**

Olympe de Gouges was one of the most important of the politically active women in revolutionary France. She protested against the Constitution and the Declaration of Rights of Man and Citizen as they excluded women from basic rights that each human being was entitled to. So, in 1791, she wrote a *Declaration of the Rights of Woman and Citizen*, which she addressed to the Queen and to the members of the National Assembly, demanding that they act upon it. In 1793, Olympe de Gouges criticised the Jacobin government for forcibly closing down women's clubs. She was tried by the National Convention, which charged her with treason. Soon after this she was executed.



**INSTRUCTIONS**

**PASTE THE PASSAGE, DRAW THE PICTURE AND Do questions given in class.**

1. Who was Olympe de Gouges?
2. What was she protesting against?
3. What did she write in the year 1791?
4. Which government did she criticize and why?

**D. INSTRUCTIONS - DO ALL SYMBOLS FROM BOTH PAGES (DRAW AND EXPLAIN AS GUIDED IN CLASS AND AS THE FORMAT GIVEN BELOW )**

**POLITICAL SYMBOLS OF FRANCE**



**SYMBOL**

**MEANING/INTERPRETATION OF THE SYMBOL**


**TO BE DONE ON A4 SIZE SHEET**

**D. MAP OF FRANCE GIVEN EARLIER -**

**INSTRUCTIONS – TO BE PASTED ON AN A4 SIZE SHEET**

**MAP SKILLS**

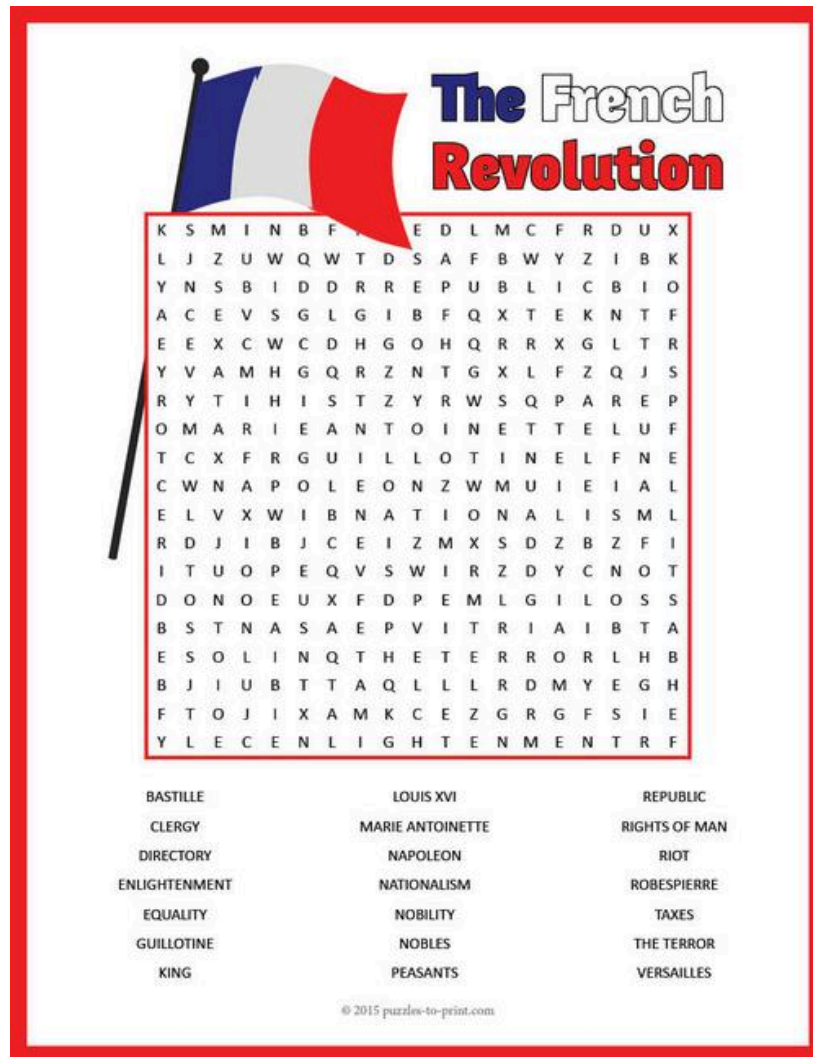
Three items A, B and C are shown on the outline map of France. Identify these items with the help of following information and write their correct names on the lines marked on the map:

- A place where fortress-prison was stormed by the people in 1789.
- A port of France related to slave trade.
- The National Anthem of France got its name from the name of this place.
- Center of peasants' panic movement.

FRANCE

A. Paris  
B. Bordeaux  
C. Marseille  
D. Nantes

## E. WORD SEARCH PUZZLE -



**The French Revolution**

K	S	M	I	N	B	F	E	D	L	M	C	F	R	D	U	X		
L	J	Z	U	W	Q	W	T	D	S	A	F	B	W	Y	Z	I	B	K
Y	N	S	B	I	D	D	R	R	E	P	U	B	L	I	C	B	I	O
A	C	E	V	S	G	L	G	I	B	F	Q	X	T	E	K	N	T	F
E	E	X	C	W	C	D	H	G	O	H	Q	R	R	X	G	L	T	R
Y	V	A	M	H	G	Q	R	Z	N	T	G	X	L	F	Z	Q	J	S
R	Y	T	I	H	I	S	T	Z	Y	R	W	S	Q	P	A	R	E	P
O	M	A	R	I	E	A	N	T	O	I	N	E	T	T	E	L	U	F
T	C	X	F	R	G	U	I	L	L	O	T	I	N	E	L	F	N	E
C	W	N	A	P	O	L	E	O	N	Z	W	M	U	I	E	I	A	L
E	L	V	X	W	I	B	N	A	T	I	O	N	A	L	I	S	M	L
R	D	J	I	B	J	C	E	I	Z	M	X	S	D	Z	B	Z	F	I
I	T	U	O	P	E	Q	V	S	W	I	R	Z	D	Y	C	N	O	T
D	O	N	O	E	U	X	F	D	P	E	M	L	G	I	L	O	S	S
B	S	T	N	A	S	A	E	P	V	I	T	R	I	A	I	B	T	A
E	S	O	L	I	N	Q	T	H	E	T	E	R	R	O	R	L	H	B
B	J	I	U	B	T	T	A	Q	L	L	R	D	M	Y	E	G	H	
F	T	O	J	I	X	A	M	K	C	E	Z	G	R	G	F	S	I	E
Y	L	E	C	E	N	L	I	G	H	T	E	N	M	E	N	T	R	F

BASTILLE                      LOUIS XVI                      REPUBLIC  
CLERGY                        MARIE ANTOINETTE                      RIGHTS OF MAN  
DIRECTORY                      NAPOLEON                      RIOT  
ENLIGHTENMENT                      NATIONALISM                      ROBESPIERRE  
EQUALITY                        NOBILITY                      TAXES  
GUILLOTINE                      NOBLES                      THE TERROR  
KING                              PEASANTS                      VERSAILLES

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**INSTRUCTIONS** - PASTE THIS PUZZLE ON A4 SIZE SHEET AFTER SOLVING IT

**YOU MAY TAKE PRINT OUT AND PASTE**

**POLITICAL SCIENCE** - PICTURE ACTIVITY ON INTERPRETATION OF CARTOONS (AS GUIDED IN CLASS)

### **CHAPTER – WHAT IS DEMOCRACY? WHY DEMOCRACY?**

#### **WORKSHEET – INTERPRETATION OF CARTOONS**

(To be done in the political science notebook. Paste or sketch photos/photo copy of the images provided. They are also in your textbooks/e chapter provided )

Figure 1

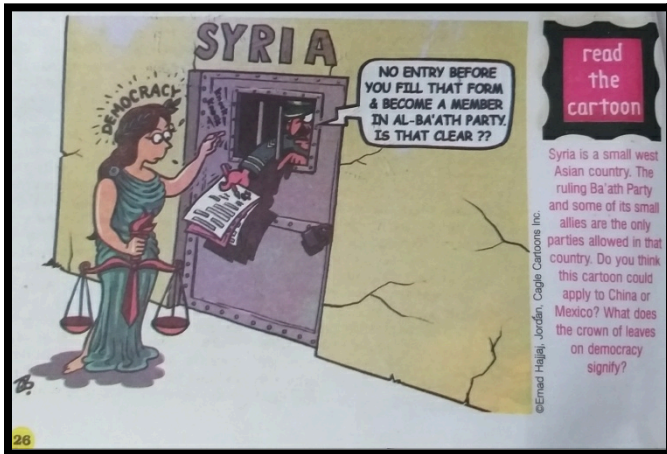


1. Which country is being shown here?  
\_\_\_\_\_  
\_\_\_\_\_

2. What is the political situation?  
\_\_\_\_\_  
\_\_\_\_\_

3. What does M stand for in the cartoon?  
\_\_\_\_\_

Figure 2



1. Name the dominant party of Syria. \_\_\_\_\_  
\_\_\_\_\_ 2

Why can we say that the condition of Syria is similar to China and Mexico?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Figure 3

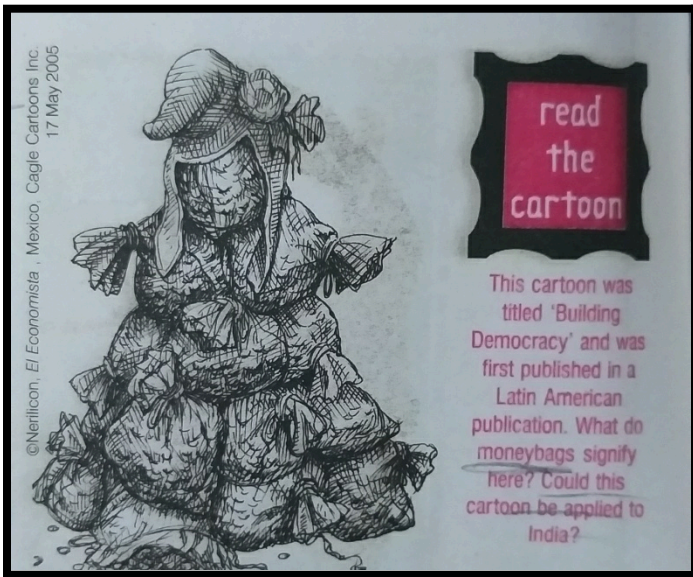


1. What is the significance of this uniform?  
\_\_\_\_\_  
\_\_\_\_\_

2. Who is controlling the ballot box here?  
\_\_\_\_\_  
\_\_\_\_\_

3. To which countries does this apply?  
\_\_\_\_\_  
\_\_\_\_\_

Figure 4



1. What is the base for building democracy here?

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2. What do money bags signify?

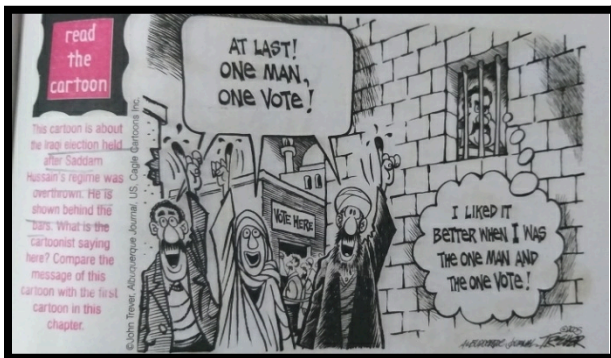
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3. To which countries is this applicable?

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Figure 5



1. How did Saddam Hussain react to elections in his country?

---

---

2. Why do the people seem to be happy?

---

---

3. Which other countries impose discrimination on voting rights?

---

Figure 6



1. According to this cartoon how can you say that media is controlled?

---

---

2. What does the boy signify?

---

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3. Find out how this situation is prevailing in China today.

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**INSTRUCTIONS** - As given in Home work do exactly the same on A4 size sheets. Give answers to questions asked.

## **Do the following in POLITICAL SCIENCE Register**

### 1. CONSTITUTIONAL MONARCHY IN FRANCE

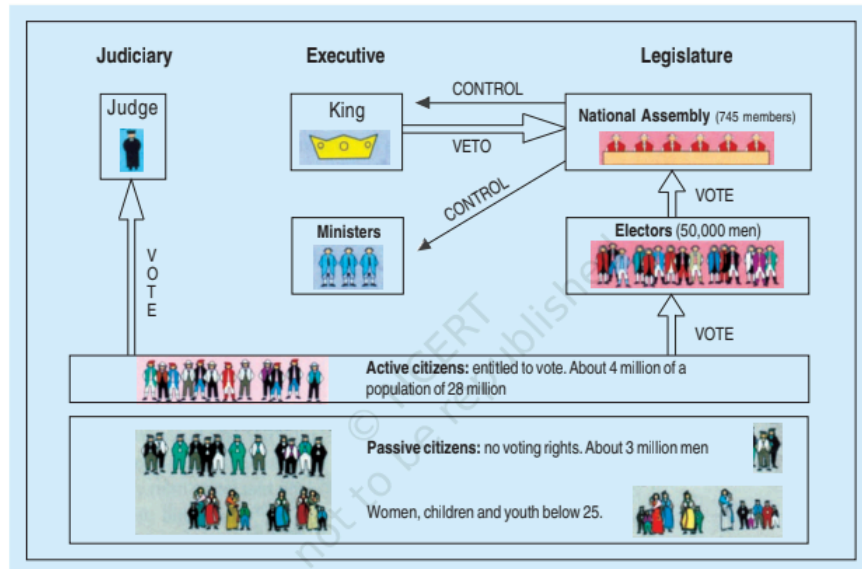


Fig.7 - The Political system under the Constitution of 1791.

**DRAW IN REGISTER**

## **GEOGRAPHY**

- I. Grow a plant in a container/pot. Decorate the pot. Find the name of the plant. Care for it well enough to understand the kind of soil it needs. Does your plant need to be watered everyday? Is it a flowering plant. Where is this plant commonly found. Explain all that you learnt about this plant.
- II. Choose any one of the following (Make the following work interesting and attractive by decorating it with biodegradable material)
  1. Prepare M.C.Q'S on Lesson -1 (at least 10 Questions).

OR

  2. Activity based---Collect the information about the silk route. Find out the new developments ,which are improving communications routes in the region of high altitudes.

OR

  3. State the following details of the place you visit during the summer vacation.

If you decide to stay in Delhi, you may state the following details for Delhi.

- a. Latitude and longitude
- b. Time zone followed
- c. Nature of terrain
- d. Nature of Soil

## **ECONOMICS**

Read the chapter-1 The story of village of Palampur and Chapter-2 People as Resource  
Prepare 10 M.C.Q.'S each of the chapter.

OR

Activity based ---- In your region talk to two labourers , choose either farm labourers, labourers working in construction sites or a househelp. (Avoid writing any names in order to maintain confidentiality)

1. What wages do they get?
2. Are they paid in cash or kind?
3. Do they get work regularly?
4. Do they get holidays regularly?
5. Do they get facilities like pension, gratuity, medical allowances, accidental benefits, casual leave etc.
6. Are they in debt? Collect the report and write in A4 size paper. (Decorate it to make it attractive)

## **ENGLISH**

**“Being creative is about presenting a piece of art, a design, an idea, or an innovation in a way that is filtered through your own unique perspective, talent, and individual skills.” Here are a few interesting tasks to help you explore your creative self.**

**Complete the tasks mentioned below as directed, using your own innovative ideas.**

### **TASK 1 -**

#### **Speaking skills and Art integration :**

- On an A4 size sheet, prepare a collage of your favorite personality .
- After the vacation, a speaking skill activity will take place in which you have to speak about that eminent personality selected by you.
- You may talk about his/her positive traits, physical appearance, any special talent and why you admire him/her. You may add any other point of your choice.
- Duration of speaking: 1:30 minutes - 2 minutes

### **TASK 2 - TRAVEL JOURNAL ( Group activity)**

**Travel Journal** : Compare and contrast the artistic heritage, cultural diversity, architectural marvels, and natural beauty of Delhi with Andaman and Nicobar Islands, and Lakshadweep, exploring the interplay between art, culture, and environment in these destinations. (GROUP ACTIVITY)

Note: A4 size sheet to be used for all the pages.

**Cover Page:** Use a vibrant and tropical colour scheme. Add a title like "Andaman and Nicobar Islands: A Journey to Paradise." Include some embellishments like seashells, palm tree stickers, or a map of the islands.

**Page 1: Introduction**

Start with a brief introduction about the Andaman and Nicobar Islands. Include some facts about the geography, culture, and history of the islands. Decorate the page with pictures of palm trees, turquoise waters, and the islands' flag.

**Page 2: Itinerary**

Imagine and plan an itinerary for your virtual trip. Create a colourful itinerary with the details of your trip. Include the dates, places you want to visit, and activities you want to do. Add a brief description of why you are interested in exploring this place.

**Page 3: Snorkelling Adventure**

Share your virtual snorkelling experience on this page. Paste underwater photos of coral reefs, colourful fish, and other marine life. Write about the excitement of exploring the vibrant underwater world.

**Page 4: Beach Escapades**

Create a collage of pictures showcasing the stunning beaches you want to visit. Write about the beauty of the white sandy shores and the crystal-clear waters.

**Page 5: Local Cuisine**

Paste pictures of local dishes you want to try, such as seafood delicacies. Research traditional dishes, ingredients, and cooking methods. Write about the flavours, aromas, and culinary experiences you imagine having during your virtual journey.

**Page 6: Cultural Encounters**

Enrich your travel journal by including fictional or imagined experiences. Describe interacting with locals, participating in cultural events, or exploring hidden gems that you create in your mind. Include photographs of traditional dance performances or local festivals. Write about the cultural heritage and traditions of the islands. Use decorative tape or ribbons to frame the pictures.



Paste pictures of exotic birds, lush rainforests, or unique wildlife you would encounter. Write about the diverse flora and fauna found on the islands. Decorate the page with leaf cutouts or 9 drawings of animals.

Back Cover:

Add a final picture of a beautiful sunset or scenic landscape. Write a short conclusion summarising your overall experience. You are free to add your own creative touches, use different materials, and personalise your travel journal.

### **TASK 3-**

**(The following exercises are to be done in the Workbook)**

#### **Unit 1 - Verb Forms**

Exercises - 1 (do not do 1.1), 2 (do not do 2.1), 5, 18.1, 18.2, Integrated practice 1

1 (do not do 1.1), 2, 3 and 4

#### **Unit 2 - Determiners**

Exercises - 1, 2.1, 3, 5 and 8

Integrated practice 2

1, 2, 3, 5 and 6

### **हिंदी**

1. निम्नलिखित वर्ग पहली में से उपसर्ग एवं प्रत्यय द्वारा निर्मित शब्दों को खोजिए , मूल शब्द , उपसर्ग एवं प्रत्यय को अलग - अलग करके दर्शाइए । ( वर्ग - पहली का प्रिंटआउट लें या स्वयं बना लीजिए । )

## वर्ग पहेली (उपसर्ग, प्रत्यय)

कृ	ब	आ	क	सु	र	अ	अ	हि
त	फी	रो	र्म	र	स	व्य	नि	च
ज्ञ	ली	ह	ठ	क्षि	ने	व	श्चि	कि
ता	ब	ण	ता	त	त	स्थि	त	चा
आ	क	र्षि	त	मि	आ	त	फ्र	ह
दु	र्ग	म	य	ने	रो	प्र	म	ट
दृ	क	नि	वि	त्	ही	वा	ज	थ
श्	अ	मि	ख्	त्	प	स	ग	क
य	ज	त्री	या	व	क्षा	ध	सि	ढ
ता	पु	स	त	र	क	ह	ल	ला
सु	म	भ	सु	प	सा	ला	जे	ऊ

2. 'दुःख का अधिकार' कहानी गरीबों की पीड़ा, समाज की मानसिकता, धार्मिक अंधविश्वास, जातिगत शोषण, गरीब और अमीर के दुःख में परस्पर अंतर को दर्शाता है।

अतः यशपाल की कहानी 'दुःख के अधिकार' के विषयगत आधार पर अपने स्वयं की कल्पना शक्ति से एक मौलिक कहानी की रचना करे, जिसका आधार 'दुःख का अधिकार' हो। आपकी रचना का उद्देश्य समाज कल्याण हो।

3. महादेवी वर्मा ने अनेक जानवरों को अपनी संतान की तरह पाला पोसा था। उनके पास गिलहरी, मोर, गाय, कुत्ता, बिल्ली, इत्यादि सभी पशु पक्षी थे। किन्तु महादेवी के अनुसार 'गिल्लू' इन सबमें अपवाद था, वह एक जानवर होते हुए भी मनुष्य की भांति रहता था।

महादेवी वर्मा की तरह आप भी किसी न किसी पशु पक्षी के समीप आए ही होंगे, उसके साथ बिताए सुखद पलों को स्मरण करते हुए अपने मित्र को पत्र लिखिए।

4. रहीम के दोहे पढ़िए, समझिए और प्रत्येक दोहे की सीख संक्षिप्त में लिखते हुए जी. ओ. आरेख का निर्माण कीजिए।

(नोट- उपर्युक्त चारों प्रश्नों को हल्के रंगीन **A4 Size Sheet** पर आकर्षक रूप से कीजिए। रंगों के चयन एवं सम्मिश्रण का ध्यान रखें।)

5. अंडमान- निकोबार द्वीप समूह एवं दिल्ली पर परियोजना कार्य

- पर्यटन स्थलों पर आधारित पत्रिका निर्माण

पत्रिका में निम्न बिन्दुओं पर आधारित जानकारी दी जाए -

- पत्रिका का आकर्षक नाम
- पर्यटन क्या है ?

- देश के विकास में पर्यटन का महत्त्व
- दिल्ली एवं अंडमान- निकोबार द्वीप समूह के किन्हीं पाँच- पाँच पर्यटन स्थलों की चित्र सहित जानकारी (नाम, आकर्षक बिंदु, भौगोलिक स्थिति, जलवायु आदि )

(विशेष नोट-

- रंगों के चयन एवं सम्मिश्रण का ध्यान रखें।
- गतिविधि स्पष्ट एवं आकर्षक रूप से बनाएँ।
- सुंदर एवं आकर्षक चित्रों का प्रयोग करें।)

6. ईकाई परीक्षा -2 हेतु पाठ्यक्रम दोहराइए।

## Maths

### 1. ART INTEGRATED PROJECT

The Andaman and Nicobar Islands are home to about a dozen of endangered languages. The majority of the population speaks immigrant languages. Demonstrate different languages spoken in Andaman and Nicobar through a Pie Chart. The most common spoken language in Lakshadweep is Malayalam. Search for others language spoken here and exhibit it by a Pie chart.

<https://youtu.be/4Rz0c1uGKmA?si=E6gjj-bhP2cebat>

(Complete this project on A4 size sheets and keep it in your portfolio)

### 2. FUN 'N' LEARN ACTIVITY

(a) Square root spiral in nature

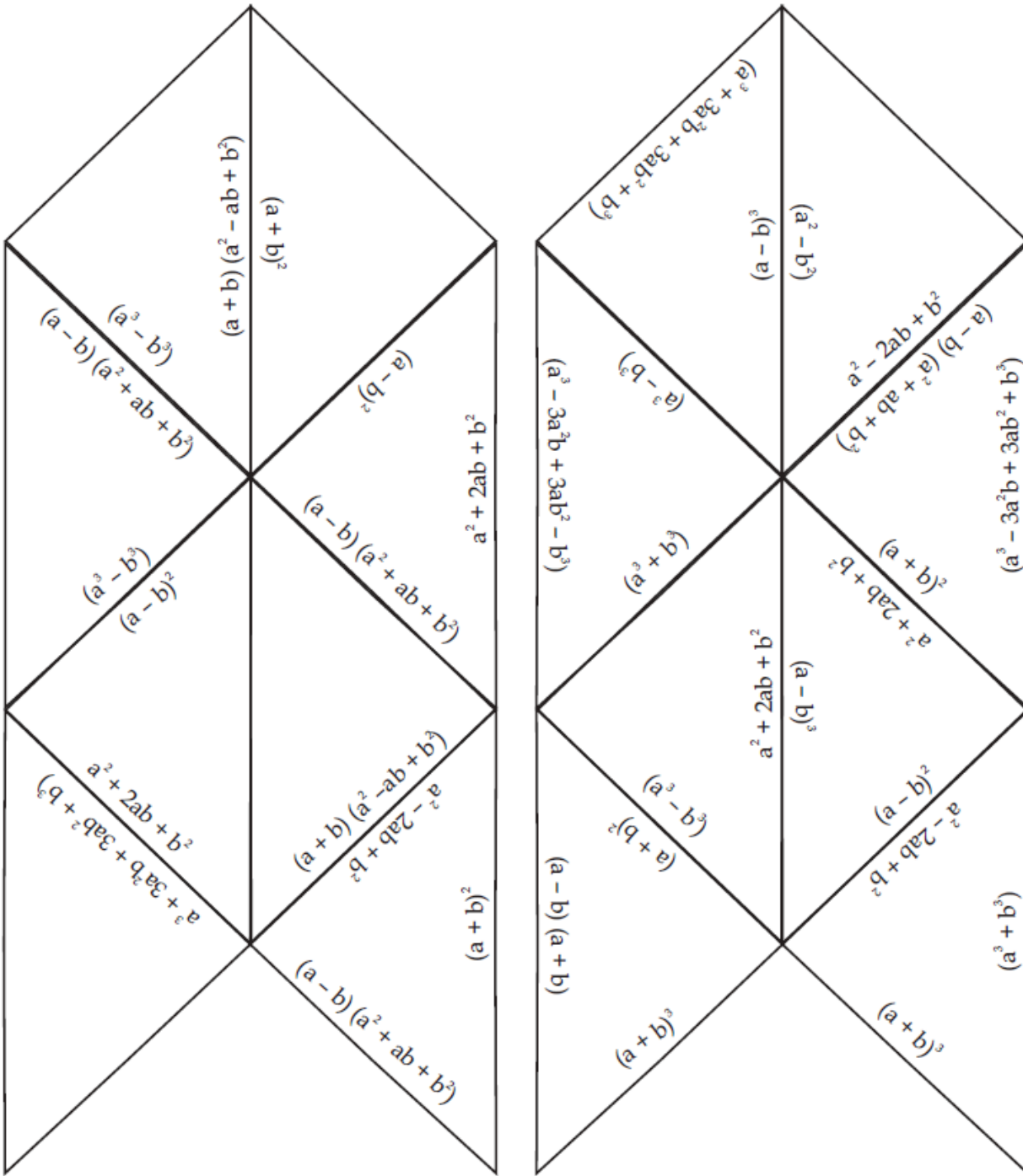
This real life existence of the square root spiral shape is the relationship between the square root spiral and objects in nature and our surroundings.

<https://youtu.be/ID3vT3xPHas?si=18tiBDG48IkH5BAA>

(Complete the activity on A4 size sheet and keep it in the portfolio)

(b) Tarsia puzzle on polynomials

(Complete the activity on A4 size sheet and keep it in the portfolio)



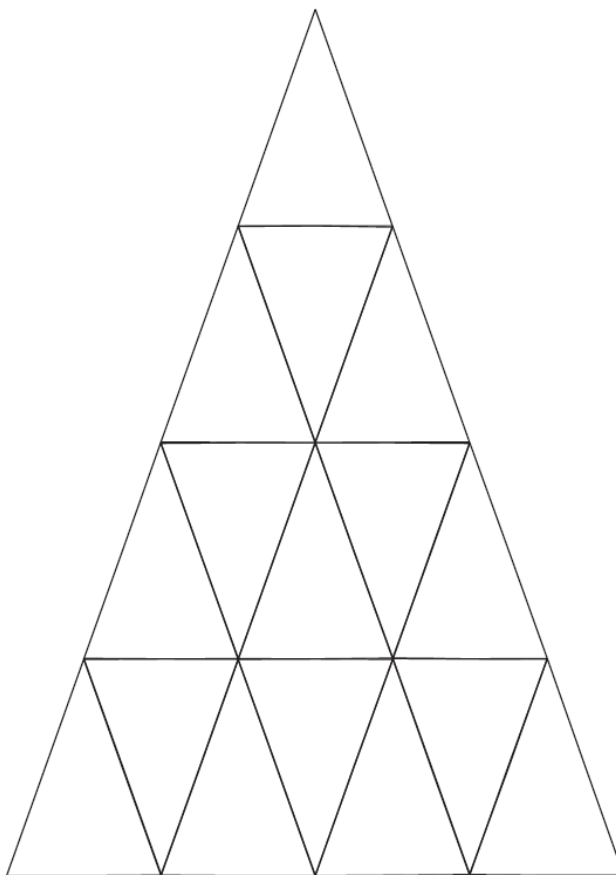
Cut out the triangles given in figure and arrange them in form of a big triangle such that –

1. Outer side of the triangle should remain empty.
2. Expansion of identity should be just below the line.

Note: Identities are repeated more than one time.

All the triangles are isosceles triangles

Big Triangle



### 3. ASSIGNMENT

Complete the following assignments (Make a separate register for completion of this work)  
Assignment 1(Number System)

1. Represent the following irrational numbers on number line.

(i)  $\sqrt{10}$       (ii)  $\sqrt{17}$       (iii)  $2+\sqrt{2}$

2. Represent geometrically  $\sqrt{8.1}$  on number line.

3. Write the following numbers in p/q form (i)  $2.0\overline{15}$  (ii)  $0.\overline{235}$

4. Find two rational numbers and two irrational numbers between  $\sqrt{2}$  and  $\sqrt{3}$  .

5. Simplify (i)  $2\sqrt{50} + 3\sqrt{32} + 4\sqrt{18}$   
 (ii)  $\sqrt[4]{16} - 6\sqrt[3]{343} + 18 \times \sqrt[5]{243} - \sqrt{196}$   
 (iii)  $\sqrt[4]{81} - 8\sqrt[3]{216} + 15\sqrt[5]{32} + \sqrt{225}$

6. If  $x = 3 + 2\sqrt{2}$ , Check whether  $x + \frac{1}{x}$  is rational or irrational.

7. Rationalise the denominator

(i)  $\frac{4\sqrt{3} + 5\sqrt{2}}{4\sqrt{3} + 3\sqrt{2}}$

(ii)  $\frac{\sqrt{2}}{\sqrt{2} + \sqrt{3} - \sqrt{5}}$

8. If  $x = 2 + \sqrt{3}$ , find  $\left(x + \frac{1}{x}\right)^3$

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

10. Simplify:  $\frac{\sqrt{72}}{5\sqrt{72} + 3\sqrt{288} - 2\sqrt{648}}$

11. Evaluate  $\frac{15}{\sqrt{10} + \sqrt{20} + \sqrt{40} - \sqrt{5} - \sqrt{80}}$

if  $\sqrt{5} = 2.236$  and  $\sqrt{10} = 3.162$

12. Find a and b if  $\frac{7 + 3\sqrt{5}}{3 + \sqrt{5}} - \frac{7 - 3\sqrt{5}}{3 - \sqrt{5}} = a + b\sqrt{5}$

13. If  $\sqrt{18-6\sqrt{5}} = \sqrt{a} - \sqrt{b}$ , then prove that  $a+b=18$ .

14. Simplify:  $\left(\frac{x^b}{x^c}\right)^{b+c-a} \times \left(\frac{x^c}{x^a}\right)^{c+a-b} \times \left(\frac{x^a}{x^b}\right)^{a+b-c}$

15. Prove that  $(x^{a-b})^{a+b} \cdot (x^{b-c})^{b+c} \cdot (x^{c-a})^{c+a} = 1$

### Assignment 2(Polynomials)

Q.1 Factorize the following by splitting the middle term:

(a)  $3x^2 + 11x + 30$  (b)  $2\sqrt{2}x^2 + 9x + 5\sqrt{2}$  (c)  $4x^2 - 13x + 10$

Q.2 Factorize

(a)  $x^3 + 9x^2 + 23x + 15$  (b)  $x^3 + 6x^2 + 11x + 6$

Q.3 Factorize the following by using a suitable identity:

(a)  $4x^2 + 12xy + 9y^2$  (b)  $2a^5 - 54a^2$  (c)  $2\sqrt{2}x^3 + 3\sqrt{2}y^3$  (d)  $x^5 - x$  (e)  $x^6 - y^6$  (f)  $(a-b)^3 + (b-c)^3 + (c-a)^3$  (g)  $x^8 - y^8$  (h)  $27x^3 - 135x^2 + 225x - 125$

Q.4 Evaluate the following using a suitable identity:

(a)  $998^3$  (b)  $10.2^3$  (c)  $9.8^3$  (d)  $998^2 - 4$  (e)  $999^2 - 1$  (f)  $(-25)^3 + 10^3 + 15^3$  (g)  $10.2 \cdot 9.8$

Q.5 If 5 is a zero of  $x^3 + kx^2 + 2x + 8$  find k.

Q.6 If  $(x-2)$  is a zero of  $x^3 - 4x^2 + kx - 8$  find k.

Q.7 If  $(x-2)$  and  $(x+3)$  are factors of  $x^3 + ax^2 + bx - 30$ , find a and b.

Q.8 If  $x+y+z=8$  and  $xy+yz+zx=20$  find the value of  $x^3+y^3+z^3-3xyz$ .

Q.9 If  $a+b+c=9$  and  $a^2+b^2+c^2=35$  find the value of  $a^3+b^3+c^3-3abc$ .

Q.10 Find the value of  $2.7^3 - 1.6^3 - 1.1^3$  using a suitable identity.

Q.11 Factorize the following by using a suitable identity:

(a)  $a^3 + b^3 - 8c^3 + 6abc$  (b)  $(a/b)^3 + (b/c)^3 + (c/a)^3 - 3$  (c)  $8x^3 - 27y^3 + 125z^3 + 90xyz$

Q.12 Find the value of  $a^3 + 8b^3$  if  $a + 2b = 10$  and  $ab = 15$ .

Q.13 Find the value of  $a^3 - 27b^3$  if  $a - 3b = (-6)$  and  $ab = (-10)$

Q.14 Find the values of m and n if  $y^2 - 1$  is a factor of  $y^4 + my^3 + 2y^2 - 3y + n$ .

Q.15  $(x+2)$  is a factor of  $mx^3 + nx^2 + x - 6$ . It leaves the remainder 4 when divided by  $(x-2)$ . Find m and n.

### MUSIC – HINDUSTANI (VOCAL)

1. Description and practice of the Ragas Yaman and Kafi with Taana.
2. Description of the Tala: Ektaal, Keherwa, Teental with single and double laya.
3. Practice any Film/Non-Film Patriotic song and Bhajan.
4. Tick mark (✓) the correct answer:

(a) In Tala Teental Khali falls on the beat:

- (i) 5<sup>th</sup> beat
- (ii) 13<sup>th</sup> beat
- (iii) 9<sup>th</sup> beat
- (iv) 1<sup>st</sup> beat

(b) Aroh of Raga Yaman is:

- (i) Ni Re Ga Ma Pa Dha Ni S'a
- (ii) Sa Re Ga Ma Pa Dha Ni S'a
- (iii) Sa Re Ga Ma Pa Dha Ni S'a
- (iv) Ni Sa Ga Ma Pa Ni S'a

(c) In which Raga Tivra Ma is used:

- (i) Bhairav
- (ii) Malkauns
- (iii) Yaman
- (iv) Kafi

(d) Correct arrangement of Vibhagas in Dadra Tala:

- (i) 1 2 | 3 4 | 5 6
- (ii) 123 | 456
- (iii) 1 | 23 | 4 5 | 6
- (iv) 1234 | 5 6