

SRI GURU HARKRISHAN PUBLIC SCHOOL, DUGRI ROAD, LDH

SUMMER BREAK ASSIGNMENTS (2025-26)

CLASS - X



Dear Parents

Greetings!!!

As already intimated, the Summer Break is scheduled from **2nd June 2025 till 5th July 2025**. Summer Vacation has always been considered to be the most desirable period looked forward by children; when they can go beyond academics and embark on a journey of fun and adventure by reading books, exercising, meditating, and channelizing one's energy in a positive manner.

The Summer Break Assignments are designed in such a way that the students will learn by doing. The parents are requested to help the students in completing all the Assignments in a neat and clean handwriting. These assignments carry weightage so it is important for everyone to deposit them immediately after the Summer Break gets over.

We wish everyone a wonderful and well deserved Summer Break! May it be filled with relaxation, fun and creating cherished memories.

HAPPY SUMMER BREAK!!!



Regards  
Principal

## Subject- English

**Note: Holidays Homework to be done in a separate copy.**

\*Locate the difficult words from the chapters and poems done till date and write their meanings along with the sentences.

\*Write the following letters:

i) You are Richu/ Rohit of 56, Green Valley Apartments, Gujarat. You have come across the problem of eve-teasing, chain snatching in your area. Such incidents have created a fear in the minds of the residents. Write a letter to the Editor of Gujarat Times, voicing your concern about the problem and suggesting desperate measures to improve it.

ii) You are Punit/ Punita of Eric India Pvt, Ltd, Delhi. You are the manager of the company and want to place order for furniture for your office. Include the details like quantity, quality, mode of payment, delivery date and discount.

iii) You are Satish/ Sapna of 86- Sunrise Apartment, Udaipur. You are disturbed to see the misuse and poor maintenance of historical monuments which is adversely affecting tourism in India. Write a letter to the Editor of a National Daily, in about 120 words highlighting the condition of the monuments, how and why their condition is deteriorating and suggesting measures for its proper upkeep.

iv) You are Sonakshi, Principal of M.G.S. Convent School, Faridabad. You want to order specimen books for classes 6-12. Write a letter to M/S Satish publishers for placing the order, specifying all the details.

v) Your area is suffering from power cuts frequently which is causing discomfort to the residents in such a scorching weather. Write a letter to the Editor of the local daily detailing him about the inconvenience faced by the residents of the locality and offering solutions.

## **Subject- Social Science**

### **History**

- A) Make an Album of the famous authors of the Europe and India and their writings. Paste pictures of the Authors and their writings mentioned in Ch-Print Culture.
- B) Prepare Mind Map of Unification of Germany, Unification of Italy and England in a creative way by using symbols and pictures.

### **Geography:**

- A) Poster making on Conservation of Water with Caption .
- B) Prepare a research project on the Impact of Industrial pollution on the health of people of Punjab. Also suggest measures to solve this problem .

### **Political Science :**

Make a report on Ch-Political parties of India:

Meaning, National and State parties, symbols, functions, challenges before political parties, Reforms

### **Economics: CBSE Project**

Choose any one of the following topics.

1. Consumer Awareness
2. Social Issues
3. Sustainable Development

A summary report should be prepared highlighting:

\*Innovative ideas generated in the process

\*The Project report should be handwritten.

Guidelines:

- a. Students need to prepare their project on A4 size paper. The project should consist maximum Number of 8 pages. (Cover Page: Title, Topic/ Name of The Student/ Class/Section/Scholar Number) should be mentioned in the project.
- b. The distribution of marks over different aspects relating to Project work is as follows: \*Content accuracy, originality and analysis. 2 marks

\*Presentation and creativity 2

\*Overall neatness, pictures and good handwriting skills. and

Make your Atlas : Locate, label & paste map of following lessons in your classwork

Notebook with the help of book (map work syllabus will be given)

Geography:- Ch-1,3,4,5,6,7

HISTORY:- CH-2

Note: Holidays homework should be done on A4 size sheets and bring it in a folder

## Subject- Science

### **Task 1 :- Carbon footprint activity**

A footprint is the total amount of greenhouse gases that are generated by our actions. Calculate your carbon footprint at home by following the simple steps given below:

- 1) Multiply your monthly consumption of electricity units by 10
- 2) Multiply your monthly consumption of gas units by 10
- 3) Multiply your monthly consumption of petrol/ diesel (in litres) by 11
- 4) Multiply total monthly mileage of your car by 7
- 5) Multiply the number of flights you have taken in the past year by 11
- 6) Add 1-5 together
- 7) Add 18 to the total of above calculations if you do not recycle newspaper.
- 8) Add 16 to the total of above calculations if you do not recycle aluminium and tin.
- 9) Total of the above calculations is the total of your carbon footprint

Keep in mind that an ideal carbon footprint should be between 6,00 to 15,99. Over 16,00 is harmful for the environment.

### **Task 2 :- DIY Natural pH Indicator Kit**

- **Task:** Extract natural pH indicators from items like red cabbage, hibiscus petals, or turmeric.
- **Activity:** Test household substances (soap, vinegar, juice, toothpaste) Record color changes

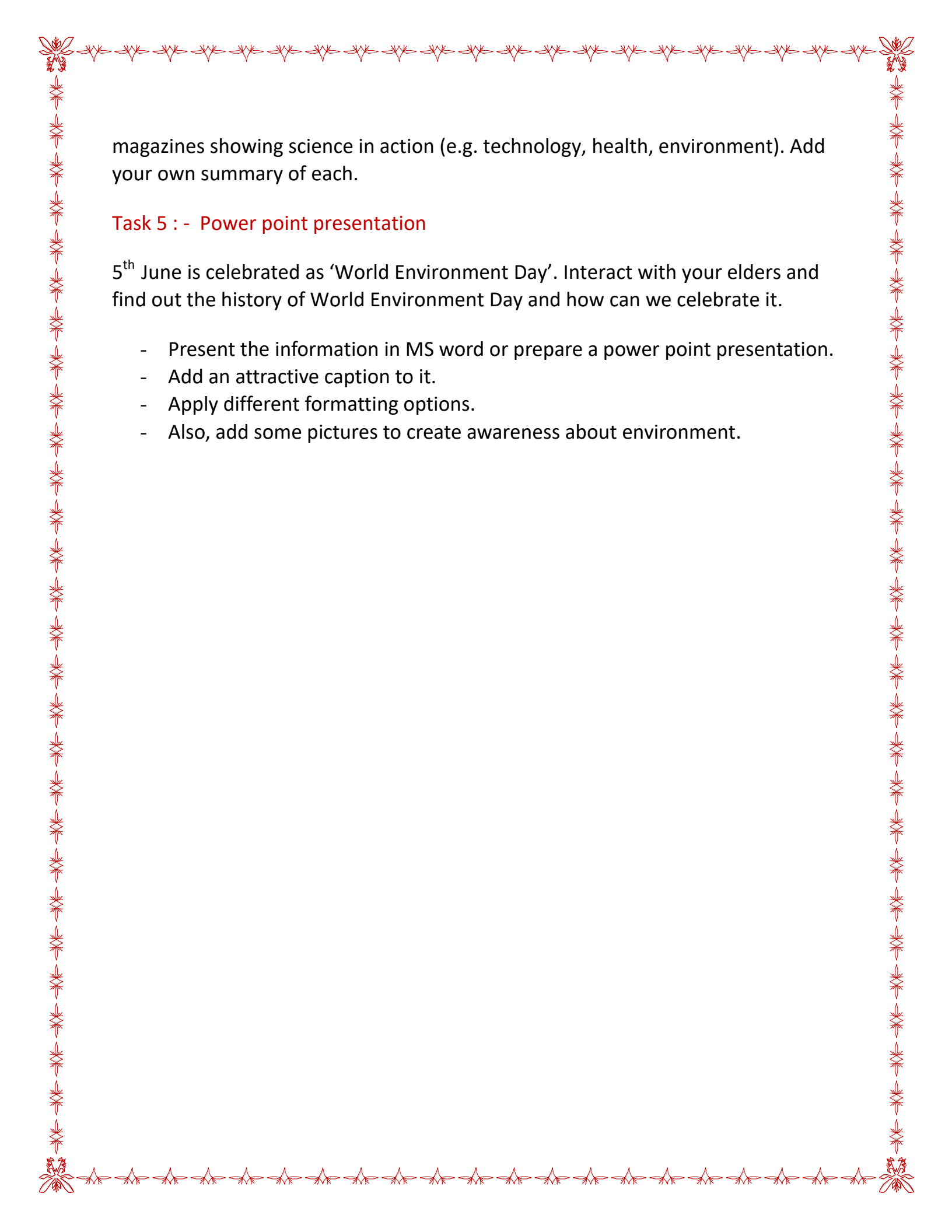
**Submission:** Lab report with pH table + photos or video

### **Task 3 :- 3D Model**

Create a 3D working model based on any Life processes topic such as Human Circulatory System, Respiratory system, Hydroelectric Power Plant, Electromagnetic Crane, Human eye, Electric circuit or any other. Your model should demonstrate the scientific concept clearly and include basic materials.

### **Task 4 :- Science Scrapbook:**

Make a scrapbook of science in the news: collect 10 articles from newspapers or



magazines showing science in action (e.g. technology, health, environment). Add your own summary of each.

**Task 5 : - Power point presentation**

5<sup>th</sup> June is celebrated as 'World Environment Day'. Interact with your elders and find out the history of World Environment Day and how can we celebrate it.

- Present the information in MS word or prepare a power point presentation.
- Add an attractive caption to it.
- Apply different formatting options.
- Also, add some pictures to create awareness about environment.

## Subject- Mathematics

### LAB MANUAL ACTIVITIES:

#### 1.System of Linear Equations In Two Variables

To obtain the conditions for consistency of a system of Linear Equations by graphical method.

#### 2. Arithmetic Progression-II

To verify the sum of first  $n$  natural numbers is  $n(n+1)/2$  by graphical methods.

#### 3. Similar Triangles

To verify the Basic Proportionality Theorem using parallel line board and triangle cut outs.

#### 4. Making a Clinometer

(a) To make a mathematical instrument clinometer for Measuring the angle of elevation /depression of an object

(b) To calculate the Height of an object using Clinometer

#### 5. Tangents drawn from an External Point

To verify that lengths of tangents drawn from an external point, to a circle, are equal by using method of paper cutting ,folding and pasting.

#### 6.Area of Circle- 1

To give a suggestive demonstration of the formula that the area of the circle is half the product of its circumference and radius (Using formula for the Area of Triangle)

#### 7. Volume of Right Circular Cylinder

To give the suggestive demonstration of the formula for the volume of a right circular cylinder in terms of its height and radius of the base circle

#### 8. Finding Probability

To get familiar with the idea of probability of an event through double color card experiment

### ASSIGNMENTS

#### CHAPTER-1 (REAL NUMBERS)

1. Find the HCF of 56 and 72
2. Find the LCM and HCF of 12 and 18 using the prime factorization method.
3. Prove that  $\sqrt{2}$  is irrational.
4. Write two rational numbers between 1 and 2.
5. Find the HCF and LCM of 60 and 72 by prime factorization, and verify that:  
 $\text{HCF} \times \text{LCM} = \text{Product of the numbers}$ .
6. A boy arranges 405 sweets in rows such that each row contains the same number of sweets and no sweet is left over. What is the greatest number of sweets that can be there in each row?
7. If the HCF of 65 and 117 is expressible in the form  $65m - 117n$ , find the values of  $m$  and  $n$ .

## **CHAPTER-2 (Polynomials)**

1. Find the zeroes of the quadratic polynomial  $3x^2 - 2$  and verify the relationship between the zeroes and the coefficients.
2. On dividing  $x^3 - 8x^2 + 20x - 10$  by a polynomial  $g(x)$ , the quotient and the remainder were  $x - 4$  and 6 respectively. Find  $g(x)$ .
3. If one zero of the quadratic polynomial  $f(x) = 4x^2 - 8kx + 8x - 9$  is negative of the other, then find the zeroes of  $kx^2 + 3kx + 2$ .
4. If the product of zeroes of the polynomial  $ax^2 - 6x - 6$  is 4, find the value of  $a$ . Find the sum of zeroes of the polynomial.
5. Find a quadratic polynomial whose zeroes are  $3 + \sqrt{2}$  and  $3 - \sqrt{2}$ .
6. If the zeroes of the polynomial  $x^2 + px + q$  are double in value to the zeroes of  $2x^2 - 5x - 3$ , find the value of  $p$  and  $q$ .
7. Show that  $1/2$  and  $-3/2$  are the zeroes of the polynomial  $4x^2 + 4x - 3$  and verify the relationship between zeroes and coefficients of polynomial.

## **CHAPTER-13 (statistics)**

1. The mean of the first five natural numbers is:  
A) 3    B) 2.5    C) 5    D) 4
2. The median of the data 7, 3, 10, 6, 2 is:  
A) 6    B) 3    C) 10    D) 7
3. The mode of the data 3, 5, 3, 8, 9, 3, 5 is:  
A) 3    B) 5    C) 8    D) 9

4. In a grouped frequency distribution, the mid-point of the class 10–20 is:  
A) 10    B) 15    C) 20    D) 5
5. Which measure of central tendency is affected most by extreme values?  
A) Median    B) Mode    C) Mean    D) None
6. Find the mean of the following data:

Class Interval	Frequency
0–10	5
10–20	8
20–30	10
30–40	7

7. A group of students surveyed as a part of their environment awareness program. They collected the following data regarding number for plants in 20 houses in a locality. Find out the mean number of the plants per house.

Number of the Plants	0-2	2-4	4-6	6-8	8-10	10-12	12-14
Number of the Houses	1	2	1	5	6	2	3

Which method would you use for finding the mean, and why?

8. Consider the following distribution of the daily wages of 50 workers of a factory.

Daily wages (in Rs.)	100-120	120-140	140-160	160-180	180-200
Number of the workers	12	14	8	6	10

Find the mean daily wages for the workers for the factory by using an appropriate method.

9. The following table shows the ages of the patients admitted in a hospital during a year:

Age (in years)	5-15	15-25	25-35	35-45	45-55	55-65
The number of patients	6	11	21	23	14	5

Find out the mode and the mean of the data given above. Compare and interpret the two measures of central tendency.

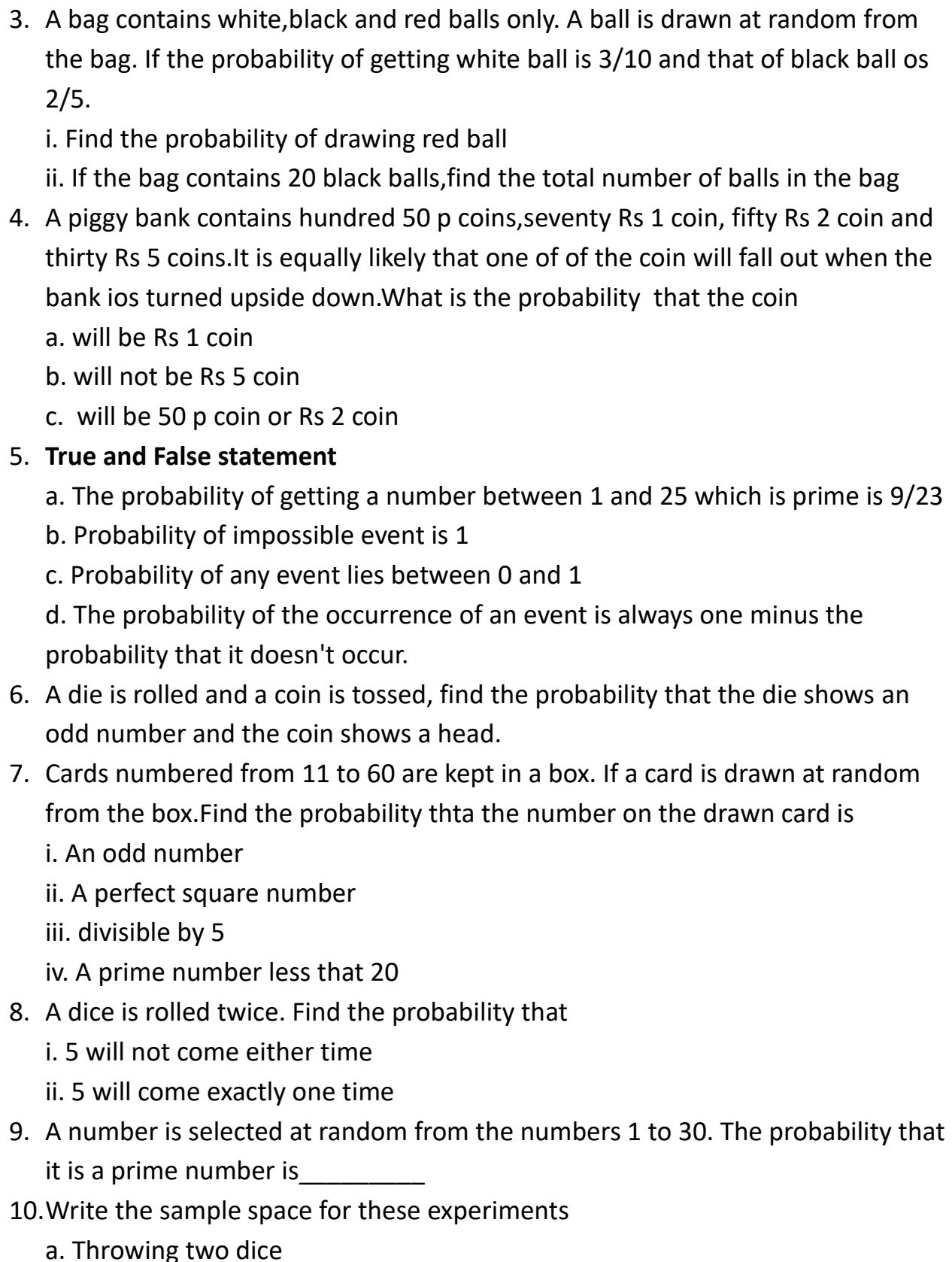
10. 100 surnames were randomly picked up from a local telephone directory and the frequency distribution of the number for letters in English alphabets in the surnames, was obtained as follow:

Number of the letters	1-4	4-7	7-10	10-13	13-16	16-19
Number of the surnames	6	30	40	16	4	4

Determine the number of median letters in the surnames. Find out the number of mean letters in the surnames and the size of the modal in the surnames.

#### **CHAPTER-14 (PROBABILITY)**

- Anil bags contain 5 red marbles, 8 white marbles and 4 green marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be
  - Red
  - White
  - Not green
- A bag contains 40 balls out of which some are red, some are blue and remaining are black. If the probability of drawing a red ball is  $\frac{11}{20}$  and that of blue ball is  $\frac{1}{5}$ , The number of black ball is
  - 11
  - 10
  - 5
  - None of these

- 
3. A bag contains white, black and red balls only. A ball is drawn at random from the bag. If the probability of getting white ball is  $\frac{3}{10}$  and that of black ball is  $\frac{2}{5}$ .
- Find the probability of drawing red ball
  - If the bag contains 20 black balls, find the total number of balls in the bag
4. A piggy bank contains hundred 50 p coins, seventy Rs 1 coin, fifty Rs 2 coin and thirty Rs 5 coins. It is equally likely that one of the coin will fall out when the bank is turned upside down. What is the probability that the coin
- will be Rs 1 coin
  - will not be Rs 5 coin
  - will be 50 p coin or Rs 2 coin
5. **True and False statement**
- The probability of getting a number between 1 and 25 which is prime is  $\frac{9}{23}$
  - Probability of impossible event is 1
  - Probability of any event lies between 0 and 1
  - The probability of the occurrence of an event is always one minus the probability that it doesn't occur.
6. A die is rolled and a coin is tossed, find the probability that the die shows an odd number and the coin shows a head.
7. Cards numbered from 11 to 60 are kept in a box. If a card is drawn at random from the box. Find the probability that the number on the drawn card is
- An odd number
  - A perfect square number
  - divisible by 5
  - A prime number less than 20
8. A dice is rolled twice. Find the probability that
- 5 will not come either time
  - 5 will come exactly one time
9. A number is selected at random from the numbers 1 to 30. The probability that it is a prime number is \_\_\_\_\_
10. Write the sample space for these experiments
- Throwing two dice

- b. Throwing two coins
- c. Throwing coin three times and writing the output
- d. A die is thrown repeatedly until a six comes up
- e. A coin is tossed until head comes up

### **Subject- Information Technology**

Complete IT Lab Manual

#### **Guidelines:**

- **Complete All Lab Exercises:**

Ensure every lab listed in your syllabus is completed.

Perform all tasks and exercises as instructed during lab sessions.

- **Use Proper Format:**

Each lab entry should include:

1. **Aim of the Lab**
2. **Tools/Software Used**
3. **Procedure/Steps Followed**
4. **Screenshots of Output**
5. **Result/Conclusion**

- Maintain clear headings and neat formatting.

- **Handwriting**

Manuals should be **handwritten neatly**

Subject- Punjabi

**HOLIDAY HOMEWORK**

**1.ਲੇਖ ਲਿਖੋ।**

ਜੇਹੀ ਸੰਗਤ ਤੇਹੀ ਰੰਗਤ, ਮਨ ਜੀਤੈ ਤੇ ਜਗ ਜੀਤ, 26 ਜਨਵਰੀ ,ਪਾਣੀ ਦੀ ਮਹੱਤਤਾ ,ਸਮਾਜ ਵਿੱਚ ਬਜ਼ੁਰਗਾਂ ਦਾ ਸਥਾਨ।

2.ਪੱਤਰ-ਨਿੱਜੀ ਤੇ ਸਰਕਾਰੀ ਸਾਰੇ ਪੱਤਰ on grammar book.

3.ਕਿਸੇ ਇੱਕ ਵਿਸ਼ੇ ਤੇ ਪ੍ਰੋਜੈਕਟ (project) ਤਿਆਰ ਕਰੋ।

- ਤਕਨੀਕੀ ਤੇ ਕਿੱਤਾ ਮੁੱਖੀ ਸਿੱਖਿਆ
- ਪਰਿਵਰਤਨ ਸੰਸਾਰ ਦਾ ਨਿਯਮ ਹੈ
- ਹਰਿਆਵਲ ਲਹਿਰ ਸਮੇਂ ਦੀ ਸਭ ਤੋਂ ਵੱਡੀ ਲੋੜ
- ਸਮਾਜ ਵਿੱਚ ਬਜ਼ੁਰਗਾਂ ਦਾ ਸਥਾਨ।

4. ਰੁੱਖ ਲਗਾਓ,ਰੁੱਖ ਬਚਾਓ ਦੇ ਆਧਾਰ ਤੇ ਇੱਕ ਪੈਦਾ ਤਿਆਰ ਕਰੋ।

Subject-Hindi

कबीर और मीरा की जीवनी सुंदर पेज पर लिखें।

## **Subject- Retail**

**Detailed summary of communication channels.**

- **Summary of self management skills**
- **Your aunt is suffering with severe back pain, moreover she is having Diabetes.What yoga asanas you will recommend to her.**
- **The serial of project should be as under.**
- **1<sup>st</sup> page. –Title Page (including name of school, Name, Subject, Class)**
- **2<sup>nd</sup> page – Acknowledgement**
- **3<sup>rd</sup> page onwards the description of Project**
- **4<sup>th</sup> page Bibliography**