English:

1. Read the book 'The Diary of Anne Frank'.
2. Identify main events mentioned in Chapters 1 to 6 of the book. Chronologically arrange the main events mentioned in the chapters and make a dictionary of the main events as discussed in English Class.

Mathematics:

Q1. Find the largest number that divides 2053 and 967 and leaves a remainder of 5 and 7 respectively.

Q2. If $241/4000 = 241/2^m 5^n$, find m and n, where m and n are non – negative integers. Hence write its decimal expansion without actual division.

Q3. K is a zero of the polynomial $p(x) = x^2 - 11x + 24$. If k is a prime number, then find the value of k.

Q4. Find a quadratic polynomial whose zeroes are $5 + \sqrt{2}$ and $5 - \sqrt{2}$.

Q5. If the polynomial $6x^4 + 8x^3 - 5x^2 + ax + b$ is exactly divisible by the polynomial $2x^2 - 5$, then find the values of a and b.

Q6. For what value of p will the following system of equations has no solution $(2p - 1)x + (p - 1)y = 2p + 1$; $y + 3x - 1 = 0$

Q7. A takes 3 hours more than B to walk 30 km. But if A doubles his pace, he is ahead of B by 3/2 hours. Find their speed of walking.

Q8. The areas of two similar triangles are 100 cm^2 and 49 cm^2 respectively. If the altitude of the bigger triangle is 5cm, find the corresponding altitude of the other.

Q9. In a triangle ABC, AD is the median. Prove that $AB^2 + AC^2 = 2(AD)^2 + 2(DC)^2$.

Q10. A box contains 20 cards bearing numbers 1,2, 3,…20. A card is drawn at random from the box. Find the probability that the number on the card is

(i) prime number (ii) neither divisible by 5 nor by 1 (iii) an even number.

Biology:

Answer all the questions on A4 sheet.

Draw well labelled diagrams where necessary.

1. Define peristaltic movement.

2. What is emulsification? How is it useful for the body?

3. Draw a diagram showing Human Respiratory System. Label the following parts :

(a) Alveolus (b) Trachea (c) Bronchus (d) Lungs.

4. Write a short note on growth regulators and discuss the role of tropic movements in control and coordination in plants.

5. Draw a well labelled diagram of heart and write the function of any two parts.

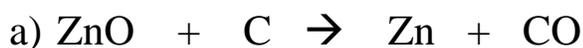6. Comment on the function of nephron.

Chemistry:

I. **Write formula of 5 chemical substances which contain:**
   a) Sulphate
   b) Acetate
   c) Hydroxide
   d) Bicarbonate
   e) Nitrate

II. Answer the following questions:

1. Zinc liberates hydrogen gas when reacted with dilute hydrochloric acid whereas copper does not. Explain with the help of balanced chemical equation.
2. Why are decomposition reactions called the opposite of combination reactions? Write equations for these reactions.
3. Define rancidity. Mention any two ways by which rancidity can be prevented.
4. Name the substance oxidised and the substance reduced in the following reactions:

a) $ZnO + C \rightarrow Zn + CO$

b) $4Na + H_2 \rightarrow 2Na_2O$

5. Write the balanced chemical equations and identify the type of chemical reaction in each of the following :

a) Iron (III) oxide reacts with aluminium and gives molten iron and aluminium oxide.

b) Chlorine gas is passed in aqueous potassium iodide solution to form potassium chloride solution and solid iodine.

c) Phosphorous burns in presence of chlorine gas to form phosphorous pentachloride.

d) Lead nitrate reacts with sulphuric acid to form a precipitate of lead sulphate and nitric acid.

e) Calcium carbonate breaks down to give calcium oxide and carbon dioxide gas.

Physics:

1. Two electric lamps of 100W and 12W are connected in parallel to a supply voltage of 200V. Calculate total current flowing through the circuit.

2. A wire of resistance 10 Ohm is bent in the form of a closed circle. What is the effective resistance between the two coins at the ends of any diameter of the circle?

3. A wire is 1 m long, 0.2 mm in diameter and has a resistance of 10 Ohm. Calculate the resistivity of its material.

4. How much energy is consumed when a current 5A flows through the filament of a heater, having resistance of 100 Ohms for 2 hours? Express it in Joule.

5. There is a bulb operating 200 W – 200 V, find its resistance and maximum current, which can pass through it without the bulb getting fused.

6. In a household, five tube-lights of 40W are used for 5 hours and an electric press of 500W for 4 hours everyday. Calculate the total electrical energy consumed by the tube lights and press in a month of 30 days

Social Science:

Water

It is life's most basic need. But there is a water crisis in our world. It has many complex parts that are all related: drinking water scarcity, food insecurity, declining ocean health, gender inequality, and climate change— just to name a few.

Nearly 800 million people in the world live without clean water. Unsafe water and lack of basic sanitation kill more people each year than all forms of violence combined-- including war. The water crisis

is extensive, but we can face it together. And you can be part of the solution.

Taking this into consideration make a project of **five pages (10 sides)** on the guidelines and questions given below:

1. Write about any one of the regions from East, West, North, South & Central India facing water crisis and mark that area on the map.
2. Mention **ten** reasons responsible for Water crisis in **India.**
3. Make a collage of various **recent** newspaper articles relating to this topic.
4. Several national organizations in our country are currently addressing the water crisis. Select one organization and write a brief report on how they are tackling this issue.

Foundation of Information Technology:

Create the following HTML documents and get printouts of the source code and the browser window for each web page (for the purpose of report file)

- School website

- Personal Blog with name, phone, area of interest etc

- Travel and Tourism for any one state

Hindi:

आपको अपने घर के पास एक वृद्ध व्यक्ति मिला है ,जिसकी मानसिक स्थिति ठीक नहीं है।उसे उसके घर तक पहुँचाने के लिए किसी दैनिक समाचार पत्र में प्रकाशित करने हेतु 20-30 शब्दों में सूचना लेखन कीजिए।

सूचना लेखन में वृद्ध व्यक्ति से संबंधित निम्नलिखित बिंदुओं का समावेश किया जा सकता है-

वेशभूषा ,मानसिक स्थिति, वृद्ध व्यक्ति कहाँ मिला, समय, दिनांक ,पहचान चिह्न आदि

अन्य आवश्यक व उचित बिंदु भी लिखे जा सकते हैं।

कार्य हिंदी कॉपी में ही कीजिए

Sanskrit:

अधोलिखिते संवादे उचित-अव्ययपदैः रिक्तस्थानानि पूरयत। (अव्ययानां सूची अधः प्रदत्ता)–

मञ्जूषा

उच्चैः, किमर्थम्, एव, बहिः, अपि

पिता   – पुत्र! एषः कोलाहलः (i) .... भवति?

पुत्र   – (ii) .... एका नटी स्वनृत्यकौशलं प्रदर्शयति।

पिता   – किम् कश्चित् गायति, वादयति (iii) .... ?

पुत्र   – आम्, नटः (iv) .... गायति, ढोलकं वादयति च।

पिता   – अभ्यासेन (v) .... कौशलं प्राप्यते।

मञ्जूषा

यदा, तदा, नूनम् एव, अद्य, अपि, यत्र, तत्र, सर्वदा

(i) विद्यालये .... वनमहोत्सवः मान्यते।

(ii) छात्रैः गृहेभ्यः .... एकः पादपः आनीतः।

(iii) छात्रैः आनीतेषु पादपेषु फलिनः वृक्षाः .... सन्ति।

(iv) .... वृक्षाः सन्ति .... हरीतिमा वर्तते।

(v) .... वृक्षेषु फलानि आगमिष्यन्ति .... केचन अन्ये एव छात्राः तानि उपभोक्ष्यन्ति।

प्रश्न 2 सन्धि ्सं धच्छेदं कृत्वा लखत -

1. सन्तोष एव **सत् + निधानम्।**
2. विद्या मानव: विपुलां कीर्तिं **धनम् + च** लभते।
3. **त्यागात् + शान्ति:** प्राप्यते।
4. भवेत् अत्र नित्यं **प्रभो + अनुग्रह:** ते।
5. **द्वौ + एव** मुनी आसने तिष्ठत:।
6. इमम् **अनु + छेदं** ध्यानेन पठत।
7. वयं **जगत् + नाथं** प्रणमाम:।
8. **उभौ + अपि** अतिथि अत्र तिष्ठत:।
9. **प्रभो + अत्र** स्वानुग्रहं करोतु।
10. हे प्रभो! महां **सत् + मतिं** देहि।
11. एकम् **अनु + छेदं** लिखत।
12. पर्वतीयं वातावरणं **स्व + छं** भवति।

प्रश्न 3 संस्कृतभाषायां समयं लखत -

प्रात: (i) 6.30 ·············· वादने ईशवन्दना।
प्रात: (ii) 7.45 ·············· वादने उपाहार:।
प्रात: (iii) 8.15 ·············· वादने संस्कृतसम्भाषण–अभ्यास:।
प्रात: (iv) 11.00 ·············· वादने वर्तनीसंशोधनम्।

(i) प्रात: 9.45 ·············· वादने दीपप्रज्वालनम्।
(ii) प्रात: 10.15 ·············· वादने अतिथे: स्वागतम्।
(iii) प्रात: 10.30 ·············· वादने नाटकाभिनय:।
(iv) मध्याह्ने 3.00 ·············· वादने कार्यक्रमसमाप्ति:।