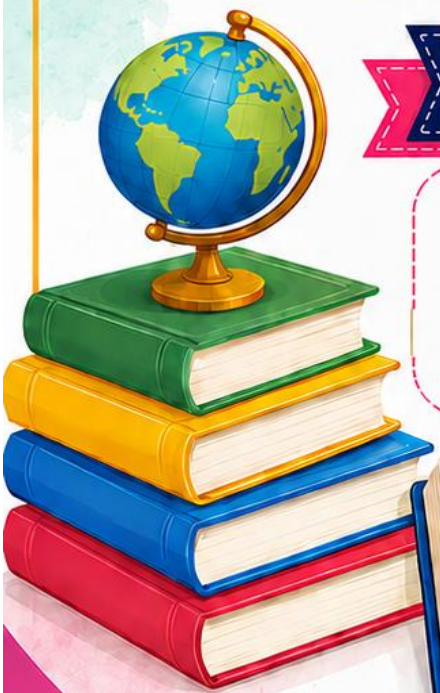
ST. THOMAS SCHOOL

INDIRAPURAM

SUMMER HOLIDAY HOMEWORK

CLASS XI

"Learn with curiosity, enjoy with happiness, and shine with confidence this summer."



English

English Scrapbook Activity

Create a creative scrapbook based on the poems from your English textbook *Hornbill* and *Snapshots*. Your scrapbook should include separate pages for the following poems:

- *A Photograph*
- *The Laburnum Top*
- *The Voice of the Rain*
- *Childhood*
- *Father to Son*
- *The Tale of Melon City*

Each poem page should include:

- A photo or cut-out of the poet
- Name of the poet
- Birth and death year
- Nationality of the poet
- Famous works of the poet
- A short description or summary of the poem
- Any two literary devices used in the poem with suitable examples

Make your scrapbook neat, colourful and creative by using decorative borders. All work should be properly arranged and written neatly.

Physics

1. **Eight experiments to be written in Practical File. (as per instructions given in class)**

1. Use of Vernier Callipers to (i) measure diameter of a small spherical/cylindrical body (ii) measure the internal diameter and depth of a given cylindrical object like beaker/glass/calorimeter and hence to calculate its volume
2. Use of screw gauge to (a) measure diameter of a given wire (b) determine volume of an irregular lamina
3. Measurement of the weight of a given body (a wooden block) using the parallelogram law of vector addition
4. Using a Simple Pendulum plot L – T and L – T^2 graphs, hence find the effective length of second's pendulum using appropriate graph
5. To study the relation between force of limiting friction and normal reaction and to find the coefficient of friction between surface of a moving block and that of a horizontal surface
6. To find the force constant **by** plotting a graph between load and extension.

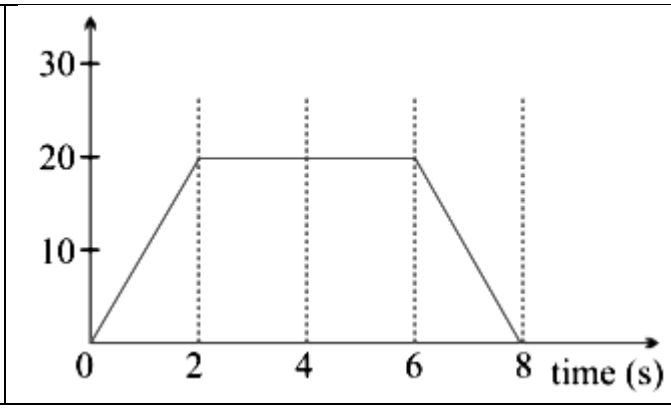
7. To determine the coefficient of viscosity of a given liquid by measuring the terminal velocity of a spherical body
8. (i) To study the relation between frequency and length of a given wire under constant tension using a sonometer (ii) To study the relation between the length of a given wire and tension for constant frequency using a sonometer

2. Revise Ch 1: Units and Measurements for UT-1

3. Assignment (to be done in Assignment Notebook)

S No.	MCQ
1	A body starts from rest and travels with uniform acceleration on a straight line. If its velocity after making a displacement of 32 m is 8 m/s, its acceleration is a. 1 m/s² (b) 2 m/s² (c) 3 m/s² (d) 4 m/s²
2	A body starts from rest and travels for t second with uniform acceleration of 2 m/s². If the displacement made by it is 16 m, the time of travel t is a. 4 (b) 3 s (c) 6 s (d) 8 s
3	The resultant of two forces 10 N and 15 N acting along + x and - x-axes respectively, is (a) 25 N along + x-axis (b) 25 N along - x-axis (c) 5 N along + x-axis (d) 5 N along - x-axis
	Assertion and Reason
	Directions: The questions consist of two statements one labeled Assertion (A) and the other labeled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below. (a) If both A and R are true and R is the correct explanation of A (b) If both A and R are true but R is NOT the correct explanation of A (c) If A is true but R is false (d) If A is false and R is also false
4	**A :** When the velocity of an object is zero at an instant, the acceleration need not to be zero at that instant. **R :** In motion under gravity, the velocity of body is zero at the top-most point.
5	**A :** A body moving with decreasing speed may have increased acceleration. **R :** The speed of body decreases when acceleration of body is opposite to velocity.
6	**A :** If speed of a particle is never zero then it may have zero average speed. **R :** The average speed of a moving object in a closed path is zero.
7	**A :** The area under acceleration-time graph is equal to velocity of object. **R :** For an object moving with constant acceleration position-time graph is a straight line.
8	**A** : The motion of body projected under the effect of gravity without a resistance is uniformly accelerated motion.

	R : If a body is projected upwards or downwards, then the direction of acceleration is downward.
	Short Answer Question:
9	The position of an object moving along x-axis is given by $x = a + bt^2$ where a = 8.5 m, 2.5 m s^{-2} and t is measured in seconds. What is its velocity at t=0 s and t=2.0 s. What is the average velocity between t=2.0 s and t=4.0 s ?
10	A body covers a distance of 4 m in 3rd second and 12 m in 5th second. If the motion is uniformly accelerated, how far will it travel in the next 3 seconds?
11	A car moving along a straight highway with speed of 126 km /h is brought to a stop within a distance of 200 m. What is the retardation of the car (assumed uniform), and how long does it take for the car to stop?
12	A ball is projected up with the velocity of 20 m/s from 105 m high tower. Find the following a) Time to reach max height. b) Maximum height attained c) Time when particle is at level of top of tower.
13	Draw (a) acceleration - time (b) velocity - time (c) Position - time graphs representing motion of an object under free fall. Neglect air resistance.
14	From the top of a tower 100 m in height a ball is dropped and at the same time another ball is projected vertically upwards from the ground with a velocity of 25 m/s. Find when and where the two balls will meet ? (g = 9.8 m/s)
15	A player throws a ball upwards with an initial speed of 29.4 m s –1 . (a) What is the direction of acceleration during the upward motion of the ball? (b) What are the velocity and acceleration of the ball at the highest point of its motion? (c) Choose the x = 0 m and t = 0 s to be the location and time of the ball at its highest point, vertically downward direction to be the positive direction of x-axis, and give the signs of position, velocity and acceleration of the ball during its upward, and downward motion. (d) To what height does the ball rise and after how long does the ball return to the player's hands? (Take g = 9.8 m s –2 and neglect air resistance).
16	Derive three equations of motion by graphical method.
17	For a particle moving along x-axis, displacement time equation is $x = 20 + t^3 - 12t$. (a) Find the position and velocity of the particle at time t = 0 (b) Find out whether the motion is uniformly accelerated or not. (c) Find out the position of particle when velocity is zero.
18	A ball is thrown upwards from 40 m high tower with a velocity of 10 m/s. Calculate the time when it strikes the ground. (g = 10 m/s2) (ans : t=4 sec)
19	The displacement of a particle moving along x – axis is given by $x = 6t + 12\ t^2$, calculate the instantaneous velocity at $t = 0$ and $t = 2s$.
20	The velocity time graph for a particle is shown in figure. Draw acceleration time graph from it.



Chemistry

1. In which of the following numbers all zeros are significant?

(a) 0.0005 (b) 0.0500 (c) 50.000 (d) 0.0050

2. Calculate the number of moles in 2.3 g of sodium.

(a) 23 (b) 10 (c) 2.24 (d) 0.1

3. An organic compound contains C = 50% and H = 9.25%. Its empirical formula is

(a) C_3H_6 (b) $C_3H_7O_2$ (c) C_2H_4O (d) C_4H_8O

4. Which of the following solutions have the same concentration?

(a) 20 g of NaOH in 200 mL of solution
(b) 0.5 mol of KC1 in 200 mL of solution
(c) 40 g of NaOH in 100 mL of solution
(d) 20 g of KOH in 200 mL of solution

5. Which of the following statement is not correct about the characteristics of cathode rays?

(a) They start from the cathode and move towards the anode.
(b) They travel in straight line in the absence of an external electrical or magnetic field.
(c) Characteristics of cathode rays do not depend upon the material of electrodes in cathode ray tube.
(d) Characteristics of cathode rays depend upon the nature of gas present in the cathode ray tube.

6. Find out the number of neutrons, protons, and electrons of $_{17}Cl^{37}$ respectively.

(a) 20, 20, 17 (b) 17, 17, 20
(c) 20, 17, 17 (d) 17, 17, 17

7. Identify the pairs which are not of isotopes?

(a) $^{12}_{6}X, ^{13}_{6}Y$ (b) $^{35}_{17}X, ^{37}_{17}Y$ (c) $^{14}_{6}X, ^{14}_{7}Y$ (d) $^{8}_{4}X, ^{8}_{5}Y$

8. Which of the following condition is suitable for cathode ray discharge tube?

(a) Low pressure, high voltage (b) Low pressure, low voltage

(c) High pressure, low voltage (d) High pressure, high voltage

9. Choose the correct option:

(a) Both A and R are the true and R is the correct explanation of A.

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

(c) A is true but R is false.

(d) Both A and R are false.

Assertion (A): One atomic mass unit is defined as one-twelfth of the mass of one carbon- 12 atom.

Reason (R): Carbon-12 isotope is the most abundant isotope of carbon and has been chosen as standard.

10. Calculate the number of molecules present

(i) In 34.20 grams of cane sugar ($C_{12}H_{22}O_{11}$).

(ii) In one litre of water assuming that the density of water is 1 g/cm3.

(iii) In one drop of water having mass 0.05 g.

11. 4 L of dinitrogen reacted with 22.7 L of dioxygen and 45.4 L of nitrous oxide was formed. The reaction is given below:

$2N_2(g) + O_2(g)$ ——-------> $2N_2O(g)$

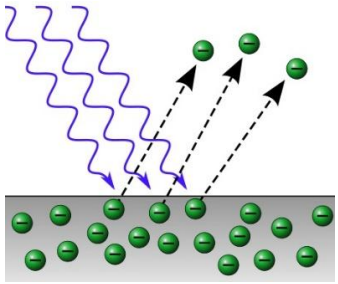
Which law is being obeyed in this experiment? Write the statement of the law.

12. Neon gas is generally used in sign boards. If it emits strongly at 616 nm, calculate :

(a) frequency of emission (b) the distance travelled by this radiation in 30s

(c) energy of quantum (d) number of quanta present if it produces 2 J of energy.

13. Based on the diagram given below , answer the following questions



a. Which phenomenon is shown in the diagram?
b. What role do photons play in the process shown in the diagram?
c. Why is the energy of the incident light important for electron emission?
d. If the frequency of incident light is below a certain threshold, what will happen to the electrons in the material?
e. How does increasing the intensity of light affect the number of electrons emitted?

14. A photon of wavelength 4×10^{-7} m strikes on metal surface ; the work function of the metal being 2.13 eV. Calculate:

(i) the energy of the photon (ii) the kinetic energy of the emission

(Given 1 eV = 1.6020×10^{-19} J).

15. The Balmer series in the hydrogen spectrum corresponds to the transition from $n_1 = 2$ to $n_2 = 3, 4, \ldots\ldots$ This series lies in the visible region. Calculate the wave number of line associated with the transition in Balmer series when the electron moves to n = 4 orbit.

($R_H = 109677\ cm^{-1}$).

Mathematics

General Instructions:

(i) This H.H.W. is divided in two parts

(ii) Part I - ASSIGNMENT

(iii) Part II – SUBJECT ENRICHMENT ACTIVITIES

PART-I

ASSIGNMENT

1	Write(i) the solution set of the equation $x^2 + 5x + 6 = 0$ in roster form.(ii) $\{x: x \in R, 2 \leq x \leq 5\}$ as an interval.
2	Write the following in set-builder form. (i) (1, 3) (ii) [–1, 9] (iii) (–4, 0] (iv) [–1, 1) (v) [0, ∞)
3	Let A = {1, 2, 3, 4, 5, 6}, B = {2, 4, 6, 8}. Find A – B and B – A.
4	Let U = {1, 2, 3, 4, 5, 6}, A = {2, 3} and B = {3, 4, 5}. Find A′, B′, A′ ∩ B′, A ∪ B
5	If (x − iy)(3 + 5i)= -6 +24i then find the values of x and y.
6	Find the non-zero integral solutions of the equation $\|1 - i\|^x = 2^x$
7	Two finite sets have m and n elements. The total number of subsets of the first set is 56 more than the total number of subsets of the second set. Find the values of m and n.
8	Let P = {a, e, i , o , u} and Q = {c, d, e} . Find the number of (i) elements in the power set of P (ii) proper subsets of set Q.
9	Draw appropriate Venn diagram for each of the following: $(i)\ A \cup B$ (ii) $(A \cup B)'$ $(iii)\ A \cap B$ (iv) A-B (v) $(A \cap B)'$
10	Show that the value of $1 + i^{10} + i^{20} + i^{30}$ is a real number.
11	Let U = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10} , A = {1, 2, 4, 6, 8, 10}, B = {1, 3, 5, 7, 8, 9}.Verify De Morgan's law.
12	Solve the inequality, $3x-5 < x+7$, when (i) x is a natural number (ii) x is an integer (iv)x is a real number
13	If L = {1, 2, 3, 4}, M = {3, 4, 5, 6} and N = {1, 3, 5} then verify that L – (M ∪ N) = (L – M) ∩ (L – N)
14	Let A and B be two sets such that: n(A) = 20, n(A ∪ B) = 42 and n(A ∩ B) = 4. Find(i) n (B) (ii) n (A – B) (iii) n (B – A)
15	Solve $4x-2 \leq 6$ and $9x+3 \geq -15$, represent its solution on number line.

16	The longest side of the rectangle is five times the shortest side. If the perimeter of the rectangle is atleast 120 cm. Find the minimum value of shortest side.
17	Solve the inequality and show the graph of the solution on the number line $5(2x-7)-3(2x+3) \leq 0,\ 2x+9 \leq 6x+47$
18	Find the conjugate of $\frac{(3-2i)(2+3i)}{(1+2i)(2-i)}$.
19	A conjugate of a complex number is another complex number that has the same real part as the original complex number, and the imaginary part has the same magnitude but opposite sign. If we multiply a complex number with its conjugate, we get a real number. A complex number z is purely real if and only if $\bar{z}$ = z and is purely imaginary if and only if $\bar{z}$ = -z. Based on the above information, answer the following questions. (a) Find the conjugate of the following : $(2 + i)^2$ (b) Find the multiplicative inverse of (4 – 3i). (c) Express (3 + 4i) (6 – 3i) (5 + i) in the form (a + ib).
20	To receive Grade 'A' in a course, one must obtain an average of 90 marks or more in five examinations (each of 100 marks). If Sunita's marks in first four examinations are 87, 92, 94 and 95, find minimum marks that Sunita must obtain in fifth examination to get grade 'A' in the course.

PART-II
SUBJECT ENRICHMENT ACTIVITIES

1. **Chapter 1- Sets**
   (i) To find the number of subsets of a given and verify that if a set has n number of elements , then the total number of subsets is 2^n **(Activity -1 as per Lab manual)**
   (ii) To represent set theoretic operations using Venn diagrams.
   (Activity-2 as per Lab manual)

2. **Chapter 4 – Complex number and Quadratic Equations**
   To interpret geometrically the meaning of i = $\sqrt{-1}$ and its integral powers.**(Activity -9 as per Lab manual)**

Biology

QA) Write the following practicals in the biology file. Draw the labelled diagrams of all specimens. Use pencil for diagram.

1. Study of specimens and Identification- Bacteria, Spirogyra, Rhizopus, Mushroom, Yeast, Moss, Pinus.
2. Study of characters of Animal specimens and identification – Amoeba, Hydra, Ascaris, Leech, Earthworm, snail, Starfish, Frog and pigeon.
3. Study and Description of the flowers

4. To prepare the temporary stained mount of T.S of Dicot stem/ Monocot Stem/ Dicot Root/ Monocot Root.
5. To study the distribution of stomata on upper and lower surface of leaf .
6. Study of mitosis in Onion Root Tip and Animal cell.
7. To identify and comment upon different types of in-florescence.

QB) Revise lessons for UT.

Computer Science

Q1. Coding & Digital Skills Activity
Visit Code.org or W3Schools and complete **any one beginner-friendly course**.
Submit:

- Screenshot/Completion Certificate
- 5–6 lines describing:
- What you learnt
- Which activity you enjoyed the most

Q2. "AI Around Me" Research Activity
Observe your surroundings and identify **5 applications of Artificial Intelligence** used in daily life.
Examples:

- Recommendation systems
- Face recognition
- Smart assistants
- Chatbots
- Online shopping suggestions

Prepare a report including:

- Name of application
- How AI is used
- Advantages
- Possible risks/concerns

OR

"Design Your Dream Tech Startup"
Imagine you are launching your own tech company.
Include:

- Startup Name & Logo
- Type of Technology/Product
- Problem your startup solves
- Target users
- Future vision
- Slogan/Tagline

You may create:

- A poster
- Infographic
- Canva design

- Digital brochure
- Short pitch presentation

Q3. Complete the worksheets of Ch-1- Computer System and Organization ,Ch-3-Getting Started with Python and Ch-4-Python programming Fundamentals(Assignment uploaded on Edunext)

Q4-Complete the practical File (Questions uploaded on Edunext)

Accountancy

Summer vacations are the perfect time to relax, refresh, and learn something new creatively." 🌼📚

Students are required to prepare a **creative collage** based on **Basic Accounting Terms**.

They have to observe their surroundings carefully — at home, nearby shops, markets, businesses, or even during conversations with parents — and identify accounting terminology used in real life.

Students should collect or draw pictures, bills, advertisements, labels, newspaper cuttings, or handwritten examples related to accounting terms and categorize them under headings such as:

*** Assets**
*** Liabilities**
*** Capital**
*** Other basic accounting terms they observe in daily life**
For example, they may include items like cash, furniture, bank loan, owner's investment, stock, bills, purchases, sales, etc., wherever they notice these concepts being used around them.

The collage should be neat, colorful, well-labeled, and creatively presented on a chart paper or scrapbook sheet.

ADDITIONAL ACTIVITY

Students are also required to create any **five business transactions** of their own and prepare the **Accounting Equation** for each transaction.

They should show the effect of every transaction on:

*** Assets**
*** Liabilities**
*** Capital**

Business Studies

Chapter: ***Nature and Purpose of Business***

Holiday Homework Activity

Objective:
To help students understand the difference between Economic Activities and Non-Economic Activities through real-life examples from their own family and surroundings.

Instructions for Students

You have to identify three family members or relatives who are involved in both economic and non-economic activities in their daily life.

For each person, observe and write:

Their name and relation with you

Economic activities performed by them

Non-economic activities performed by them

Difference between the two activities

Conclusion based on your observation

Prepare the work neatly in a decorated Business Studies holiday homework file with proper headings, pictures (if possible), and creative presentation.

Guidelines for the File

Cover Page

Write:

Name

Class & Section

Subject: Business Studies

Topic: *Economic and Non-Economic Activities*

Session: 2026–27

You may decorate the cover page with business-related drawings or pictures.

Suggested Index

Introduction

Meaning of Economic Activities

Meaning of Non-Economic Activities

Observation of Three Family Members

Comparison Table

Conclusion

Learning Outcome

Introduction (Students can write)

Business activities are an important part of our daily life. Some activities are done to earn money and are called economic activities, while some are done out of love, care, affection, or social responsibility and are called non-economic activities. This project helps us understand these activities through examples from our family members.

Definitions

Economic Activities

Activities performed to earn income, salary, profit, or livelihood are called economic activities.

Examples:

Teaching in a school

Running a shop

Doctor treating patients

Farming

Office work

Non-Economic Activities

Activities performed out of love, care, affection, sympathy, or social service are called non-economic activities.

Examples:

Helping children in studies

Cooking for family

Helping neighbours

Taking care of elders

Charity work

Observation Format

Person 1

Name: _____

Relation: _____

Occupation: _____

Economic Activities

Non-Economic Activities

Difference Observed

Person 2

Name: _____

Relation: _____

Occupation: _____

Economic Activities

Non-Economic Activities

Difference Observed

Person 3

Name: _____

Relation: _____

Occupation: _____

Economic Activities

Non-Economic Activities

Difference Observed

Comparison Table

Basis	Economic Activities	Non-Economic Activities
Meaning	Done to earn money	Done out of love/care
Purpose	Income earning	Satisfaction/service
Reward	Monetary reward	No monetary reward
Example	Teaching in school	Teaching own child

Conclusion

Through this activity, I learned that people perform different kinds of activities in their daily lives. Economic activities help people earn money, while non-economic activities help in maintaining relationships, love, and social values. Both are equally important in life.

Learning Outcome

Understood the meaning of economic and non-economic activities

Learned practical application of Business Studies concepts

Improved observation and presentation skills

Teacher's Note

Use neat handwriting

Add relevant pictures/drawings wherever possible

Maintain creativity and proper presentation

Submit the file after summer vacation

Economics

1.	Do complete the fair notebook. (Statistics – L-1,2,3)
2.	The assignment of **Micro Economics**, lesson -1: "Introduction" will be shared in the first week of June. Do the assignment in the same notebook.
3.	Prepare a small project on "**DATA COLLECTION**" . For project use folder and A-4 sheets. Details regarding project given below.

INSTRUCTIONS REGARDING "DATA COLLECTION POJECT"

1.	Select a relevant topic
2.	Prepare a questionnaire. (consisting 10 - 15 questions)
3.	Get it approved by teacher.
4.	Get it filled by 10 respondents.
5.	Answer the following questions regarding '**DATA COLLECTION PROJECT'**. a. What is the source of data you have collected? Is it from internal or external sources? b. What type of data have you collected – primary or secondary? Explain why. c. Which method of '**collecting primary data**' have you used? d. Which survey method have you used: census method or sampling method? i. If sampling is used, is it random sampling or non-sampling? ii. which specific method is used under above mentioned two main types of sampling? Discuss.
6.	Keep following pages in a folder. a. Specimen questionnaire . b. 10 questionnaires containing responses of ten respondents. c. Answers of question no. 5

Applied Mathematics

General Instructions:

(i) **This H.H.W. is divided in two parts.**
(ii) **Part I- ASSIGNMENT**
(iii) **Part II- PROJECT**

PART-I

ASSIGNMENT

1	Describes the each of following in roster form (a) {x : x is a positive integer and a divisor of 9} (b) { x : x is a letter of the word PROPORTION}
2	State which of the following sets are finite and which are infinite. (a) A={x : x ε Z and x^2-5x +6=0} (b) B={x : x ε Z and x^2 is even } (c) C={ x : x ε Z and x^2 = 36} (d) D= { x : x ε Z and x> -10}
3	Which of the following pairs of sets are equal? Give reasons. (a) A = {–2, 3}, B = {x is a solution, of x^2– x – 6 = 0} (b) A = {x : x is a letter of the word 'FOLLOW'} B = {y : y is a letter of the word 'WOLF'} (c) A = {1, 4, 9}; B = {x : x = n^2 where 'n' is a natural number less than 5}
4	Write the following subsets of R as intervals: (i) $\{x : x \in R, -1 \leq x \leq 6\}$ (ii) $\{x : x \in R, -2 < x \leq 3\}$ (iii) $\{x : x \in R, 1 < x < 2\}$ (iv) $\{x : x \in R, x \leq -7\}$ (v) $\{x : x \in R, x \geq 0\}$ (vi) $\{x : x \in R, 0 \leq x < 1\}$
5	Write the following intervals in the set-builder form: (i)(–5, 0) (ii) [1, 10] (iii) (3, 11] (iv) [–10, 4) (v) (-3,∞)
6	Write down all possible subsets of each of the following sets: (i){a,b} (ii) { p } (iii) {p, q, r } (iv) {1, {2}, 3 }
7	Describe the following sets in set-builder form: (i) A = {1, 1/2, 1/3, 1/4, 1/5,…..} (ii) B= {0, 5, 10, 15, 20, ……} (iii) C = {1, 4, 9, 16, ……., 100} (iv) D = $\{\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}\}$
8	Let P = {a ,e, i, o, u} and Q = {c, d, e} .Find the number of (i) elements in the power set of P (ii)proper subsets of set Q.
9	Draw suitable Venn diagrams for each of the following. (i) $(P \cup Q)'$ (ii) $(P \cap Q)'$ (iii) $P' \cap Q'$ (iv) $P' \cup Q$
10	Let P = {1, 3, 5, 7} Q = {3, 7, 9, 11} R = {1, 5, 8, 11}, then verify the following. (i) $P \cup Q = Q \cup P$ (ii) $(P \cup Q) \cup R = P \cup (Q \cup R)$ (iii) $P \cap Q = Q \cap P$ (iv) $(P \cap Q) \cap R = P \cap (Q \cap R)$
11	Let U = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10} , A = {1, 2, 4, 6, 8, 10}, B = {1, 3, 5, 7, 8, 9} .Verify De Morgan's law.
12	(i)Let A = {1,2,3}, find A×A (ii) If (x + y, 3x – 5) =(10, 4). find the value of x and y.
13	In a class, 70 students wrote two tests, test-I and test-II. 50% of the students failed in test-I and 40% of the students in test-II. How many students passed in both the tests?
14	Two finite sets have m and n elements respectively. The total number of subsets of first set is 56 more than the total number of subsets of the second set. Find the values of x and y?
15	A college awarded 38 medals in football, 15 in basketball and 20 in cricket. If these medals went to a total of 58 men and only three men got medals in all the three sports, how many received medals in exactly two of the three sports?

16	In a survey of 600 students in a school, 150 students were found to the taking apple juice, 225 taking orange juice and 100 were taking both apple and orange juice. Find how many were taking neither apple juice nor orange juice.
17	Convert following decimal numbers to binary numbers: (i)57 (ii) 276 (iii) 381 (iv) 101
18	Convert following binary numbers to decimal numbers: (i)11110101100 (ii) 100010001 (iii) 110110110 (iv) 101
19	If n(U) =40, n(A) = 25 and n(B) = 20 then find (a) the greatest value of n(AUB) (b) the least value of n (A∩B).
20	In an University, out of 100 students 15 offered Mathematics only,12 offered Statistics only,8 offered only Physics ,40 offered Physics and Mathematics ,20 offered Physics and Statistics ,10 offered Mathematics and Statistics ,65 offered Physics . Find the number of students who (a) offered Mathematics. (b) offered Statistics (c) Did not offer any of the above three subjects.

PART-II
PROJECT

Project Topic –
Sets : Use of Venn diagram in solving practical problems.

A Sample format is given below:

- Front Page / Cover Page
- Certificate
- Acknowledgement
- Table of Contents /Index
- Introduction
- Observation
  Selection of practical problem for the project from real life situations and its solution
- Analysis and interpretation
- Conclusion:
- Bibliography / References

History

(PROJECT WORK-20 MARKS)
PROJECT WORK WILL HELP STUDENTS:

- To develop skill to gather data from a variety of sources, investigate diverse viewpoints and arrive at logical deductions.

- To develop skill to comprehend, analyse, interpret, evaluate historical evidence, and understand the limitation of historical evidence.
- To develop 21st century managerial skills of co-ordination, self-direction, and time management.
- To learn to work on diverse cultures, races, religions, and lifestyles.
- To learn through constructivism-a theory based on observation and scientific study.
- To inculcate a spirit of inquiry and research.
- To communicate data in the most appropriate form using a variety of techniques.
- To provide greater opportunity for interaction and exploration.
- To understand contemporary issues in context to our past.
- To develop a global perspective and an international outlook.
- To grow into caring, sensitive individuals capable of making informed, intelligent, and independent choices.
- To develop lasting interest in history discipline.

A FEW SUGGESTIVE TOPICS FOR CLASS XI PROJECTS:

1. Facets of the Industrialization in sixteenth- eighteenth centuries.
2. Crusades: causes; rationale; events; outcomes; Holy Alliance
3. Ancient History in depth: Mesopotamia
4. Greek Philosophy and City States
5. Contributions of Roman Civilization
6. The spirit of Renaissance: Manifestation in art; Literature; Sculpture; Influence on Trading Community; Social Fabric; Philosophy; Political Values; Rational Thinking;

   Existentialism

7. Aspects of Development-South American States /Central American States
8. Different schools of thoughts- Realism: Humanism: Romanticism
9. Piecing together the past of Genghis Khan
10. Myriad Realms of Slavery in ancient, medieval, and modern world
11. History of Aborigines– America /Australia
12. Facets of Modernization– China /Japan/Korea

PRESENTATION AND SUBMISSION OF PROJECT REPORT:

The following essentials are required to be fulfilled for its preparation and submission.

1. The total length of the project will be of 25 to 30 pages.
2. The project should be handwritten.
3. The project should be presented in a neat folder.
4. The project report should be developed in the following sequence-
   a) The cover page should include the title of the Project, student information, school a year.
   b) List of contents.
   c) Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).
   d) Introduction.

e) Topic with suitable heading.
f) Conclusions (summarised suggestions or findings, future scope of study).
g) Photographs (if any).
h) Appendix.
i) Teacher's observation.
j) Signature of the teacher.

MODE OF PRESENTATION/SUBMISSION OF THE PROJECT:

In the first week July 2026 each student will present the research work in the Project File to the History teacher. The questions should be asked from the Research Work/ Project File of the learner.

VIVA-VOICE:

- At the end of the stipulated term, each learner will present the research work in the Project File to the External and Internal examiner.
- The questions should be asked from the Research Work/ Project File of the learner.
- The Internal Examiner should ensure that the study submitted by the learner is his/her original work.
- In case of any doubt, authenticity should be checked and verified.

THE MARKS WILL BE ALLOCATED UNDER THE FOLLOWING HEADS:

SL.NO.	COMPONENTS	MARKS ALLOTTED
1	INTRODUCTION/OVERVIEW	2
2	VARIETY OF CONTENTS	3
3	PRESENTATION	3
4	CONCLUSION	1
5	BIBLIOGRAPHY	1
6	VIVA-VOCE	10
	TOTAL	**20**

Political Science

PROJECT WORK: (20 marks)

1. Every student has to compulsorily undertake one project on the topics from the syllabus of session 2026-27. The Project Report should be ***handwritten*** by the students themselves on A3/4 size sheets.

GENERAL INSTRUCTONS:

1. The Project Report should be ***handwritten*** by the students themselves on A3/4 size sheets.

2. Students must use at least one primary evidence/ source **(immediate firsthand account of a topic from people who had direct connection with it)** to prepare the project. Speeches/newspaper cuttings/Interviews/survey etc.
3. If possible, ***different forms of Art*** may be integrated in the project work.
4. Use eco-friendly products without incurring too much expenditure.
5. Project content must not be less than 10 pages or exceed 15 pages.
6. All pages will be numbered, with a broad left margin.
7. Use only one face (Odd # page) to write content material. Even # pages will be utilized **only** to illustrate pictures, fact/figure & statistics (Whatever applicable/relevant to written content on the following page).
8. Wherever required prepare FOOTNOTES/`DID YOU KNOW?' fact card with lesser known but interesting facts associated with content.

PATTERN OF THE PROJECT FILE:

1. **Cover page** - School name, Project title, Session, Subject. At the bottom of the title page - write your Name (in CAPITAL) and Class (in two separate rows/Right align) followed by Roll No.
2. **First page** - Project Title, subject, session, name of the student, class/ section
3. **Certificate of Authenticity**
4. **Acknowledgment**
5. **Table of Contents** - With page numbers
6. **Introduction** of the Topic / Purpose and aim of the project
7. **Content**:
   - Introduction
   - Identifying causes, events, consequences and/or remedies.
   - Various stakeholders and effect on each of them.
   - Short-term and long-term implications of strategies suggested in the course of research.
   - Check list includes validity, reliability, appropriateness and relevance of data used for research work.
   - Present material/ data/ statistics with related pictures, pie charts, bar graphs, cartoons, slogans, maps etc. **on the left side of the file (even # pages)** to make a quality project.
   - Report on primary source (with evidence)
   - **Conclusion**- Draw a relevant conclusion by mentioning the learning outcome and suggestions (if any).
8. **Bibliography**- Mention name of the book, newspaper, magazine, website, author, publisher

Suggested Topics:

1. Making of the Constitution.
2. Elections in India.
3. Working of the Indian Judiciary System.
4. Social Justice: Are ethics followed in Indian Politics
5. Human Rights Act and its gratification in India.
6. Political impact on Indian Legislation.
7. Article 368 and Constitutional Amendments

8. Fundamental Rights vs. Directive Principles
9. Federalism in India: Centre-State Relations
10. Election Commission of India: Powers and Challenges
11. Citizenship and Globalization: Changing Meanings in the 21st Century
12. Democracy: Forms, Merits and Challenges in India
13. Political Ideologies: Liberalism, Socialism and Communism
14. Liberty vs. Equality: Tensions and Balances
15. Freedom of Speech: Limits and Responsibilities

READING TASK:

*Read the newspaper daily.

*Read Articles 12 to 35 of the Indian Constitution and collect newspaper clippings/news items showing the protection or violation of Fundamental Rights in everyday life.

REVISION

Learn and revise UT-1 syllabus.

Psychology

1- Question answer of chapter I Introduction of Psychology.

2- Activity of verbal learning in your practical note book.

3- Make notes of chapter learning and do all questions of the chapter in note book.

Physical Education

Project File Work

Topic: SAI Khelo India Fitness Test

Prepare a project file on the SAI Khelo India Fitness Test.

The project should include the following points:

1. Introduction to the SAI Khelo India Fitness Test.

2. Objectives and importance of the fitness test.

3. Different fitness components assessed in the test.

4. Description of various test items and their procedures.

5. Role of the Khelo India programme in promoting sports and fitness in India.

6. Conclusion highlighting the importance of maintaining a healthy and active lifestyle.

Hindi

विषय : प्रेमचंद

प्रसिद्ध साहित्यकार मुंशी प्रेमचंद के जीवन एवं साहित्यिक योगदान पर निम्नलिखित बिंदुओं के आधार पर संक्षिप्त परियोजना कार्य तैयार कीजिए।

निर्देश :

परियोजना 1–2 पृष्ठों में लिखें। भाषा सरल एवं स्पष्ट हो। उपयुक्त चित्रों का प्रयोग किया जा सकता है। सभी प्रश्नों के उत्तर संक्षेप में लिखें।

1. प्रेमचंद का जीवन परिचय लिखिए।
   संकेत बिंदु : जन्म एवं परिवार, शिक्षा, संघर्षपूर्ण जीवन, साहित्यिक जीवन, निधन।
2. प्रेमचंद को "उपन्यास सम्राट" क्यों कहा जाता है?
   संकेत बिंदु : हिंदी साहित्य में योगदान, उपन्यास एवं कहानियाँ, यथार्थवादी दृष्टिकोण, समाज सुधारक विचार।
3. प्रेमचंद की प्रमुख रचनाओं का परिचय दीजिए।
   संकेत बिंदु : गोदान, गबन, निर्मला, कर्मभूमि, ईदगाह, कफन।
4. प्रेमचंद के साहित्य की विशेषताएँ लिखिए।
   संकेत बिंदु : सरल भाषा, सामाजिक यथार्थ, ग्रामीण जीवन का चित्रण, नैतिक संदेश, मानवीय संवेदनाएँ।
5. 'ईदगाह' कहानी का सार एवं संदेश लिखिए।
   संकेत बिंदु : मुख्य पात्र, कहानी का संक्षिप्त वर्णन, हामिद का चरित्र, कहानी का संदेश।
6. प्रेमचंद की भाषा-शैली पर प्रकाश डालिए।
   संकेत बिंदु : सरल एवं सहज भाषा, बोलचाल के शब्द, प्रभावशाली शैली, भावपूर्ण वर्णन।

Fine Arts

1. Any Still life on A3 sized paper
2. One Nature Study with paint
3. One Fantasy.
4. One Folk Art
5. One Artist Work.

Skill Subjects

Web Application

Q1. Complete the Practical File that will be shared in EduNext.

Banking

“A good banker is not one who earns money, but one who builds trust.”

1. Complete all work neatly in a separate file.

2. Use colored sheets, pictures, charts, and creative presentation wherever required.

3. Submit the homework after the summer vacation.

4. Handwriting and presentation will be assessed

Activity No. 1: Bank Visit Activity

Visit any nearby bank with your parents and observe the following:

* Different counters in the bank

* Services provided

* Forms used in the bank

* ATM facilities

* Customer care services

Write a short report (150–200 words) on your experience.

You may visit banks such as State Bank of India, Punjab National Bank, or HDFC Bank.

Activity No. 2: Form Filling Practice

Collect or draw the following banking forms and fill them with sample details:

* Deposit Slip

* Withdrawal Slip

* Cheque

* Account Opening Form


Wishing all our
students
a joyful and enriching
summer vacation.
May your holidays be filled with
fun, learning, creativity,
and wonderful memories.
See you refreshed and ready
for another exciting
academic journey!
Have a safe, happy and
amazing summer!
READ
LEARN
GROW
EXPLORE
DREAM
DISCOVER
MAKE
MEMORIES

------X----------X----------X----------X----------