



**SYNA INTERNATIONAL SCHOOL, KATNI**  
**SUMMER ASSIGNMENT (2026-27)**  
**GRADE-XII AB/C/D**

**ENGLISH**

- 1. A PowerPoint presentation on the Poetic devices used in the lessons of Flamingo.**

**Instructions:**

**All the poetic devices must be mentioned with a brief explanation and their examples used in the lessons and poems.**

**All the lessons and poems need to be included.**

- 2. Your school recently introduced a No-Mobile Policy. Write a report analyzing:**
  - Reason for implementation
  - Student response
  - Impact on discipline and academics
  
- 3. Write a report on a natural disaster (flood/earthquake) highlighting:**
  - Causes
  - Impact on people
  - Relief measures

## **MATHEMATICS**

- 1. Solve all the questions, including solved examples and exercises, from Chapters 3 and 4 of NCERT.**
- 2. Also solve the miscellaneous exercises from Chapters 3 and 4 of the NCERT textbook.**

## **PHYSICS**

### Investigatory Projects for 12 Science

1. To study various factors on which the internal resistance/EMF of a cell depends.
2. To study the variations in current flowing in a circuit containing an LDR because of a variation in (a) the power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the lamps at a fixed distance). (b) the distance of a incandescent lamp (of fixed power) used to 'illuminate' the LDR.
3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equiconvex lens (made from a glass of known refractive index) and an adjustable object needle.
4. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer.
5. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids.
6. To estimate the charge induced on each one of the two identical Styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law.
7. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor/(bulb) in a circuit fed up by an A.C.

source of adjustable frequency. 6. To study the earth's magnetic field using a compass needle -bar magnet by plotting magnetic field lines and tangent galvanometer

## CHEMISTRY

Design the investigatory project and submit the report.

1. Preparation of soyabean milk and it's comparison with natural milk with respect to curd formation, the effect of temperature, etc.
2. Study the digestions of starch by salivary amylase and effect of pH and temperature on it.
3. Extraction of essential oils present in saunf (aniseed), ajwain (carum), illaichi (cardamom).
4. Study of presence of oxalate ions in guava fruit at different stages of ripening.
5. Study of quality of the caesin present in different samples of milk.
6. Study of the effect of potassium bisulphate as food preservative under various conditions( temperature, concentration, time etc).
7. Comparative study of rate of fermentation of following materials : wheat flour, gram flour ,potato juice, carrot juice etc.
8. Study of common food adulterants in fat, oil ,butter, sugar turmeric powder ,chilli powder and pepper.

## BIOLOGY

Make an Investigatory project on DNA Extraction + 3D Model Presentation .  
Or Heart Rate & Stress Level Study (Mini Research Project).

## ACCOUNTA NCY

Do all questions of chapter 1(FUNDAMENTRAL OF PARTNERSHIP ) and chapter 2 (GOODWILL) in a separate register.

2. Collect 10 different source documents for accounting purpose.
3. Prepare Project File on Ratio Analysis and Cash flow Statement.

## COMPUTER SCIENCE

## BUSINESS STUDIES

**Project : Principles of Management** The students are required to visit any one of the following:

1. A departmental store.
2. An Industrial unit.
3. A fast food outlet.
4. Any other organisation approved by the teacher.

They are required to observe the application of the general Principles of management advocated by Fayol. Fayol's principles

1. Division of work.
2. Unity of command.
3. Unity of direction.
4. Scalar chain
5. Espirit de corps
6. Fair remuneration to all.
7. Order.
8. Equity.
9. Discipline
10. Subordination of individual interest to general interest.
11. Initiative.
12. Centralisation and decentralisation.
13. Stability of tenure.
14. Authority and Responsibility

OR

They may enquire into the application of scientific management techniques by F.W. Taylor in the unit visited. Scientific techniques of management.

1. Functional foremanship.
2. Standardization and simplification of work.
3. Method study.
4. Motion Study.
5. Time Study.
6. Fatigue Study
7. Differential piece rate plan.

2. Do all exercise questions of chapter 1,2 and 3 in separate register.

## **Political Science**

For Class XII Political Science Annual Board Exam File Project (as per CBSE guidelines), students usually prepare a Project File based on topics from the syllabus of Political Science. The project should be handwritten, well-presented, and include current examples, case studies, pictures, newspaper cuttings, maps, and charts where needed.

### **Important Project Topics (Choose One)**

#### **1. India's Foreign Policy**

- Panchsheel
- Non-Alignment Movement (NAM)
- India and its neighbours
- India-China relations
- India-US relations

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#### **2. United Nations and Its Organizations**

- Formation of UN
- Objectives

- WHO, UNESCO, UNICEF
- India's role in UN

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### 3. Challenges to Democracy

- Poverty
- Unemployment
- Corruption
- Illiteracy
- Communalism
- Solutions

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### 4. Indian Party System

- National Parties
- Regional Parties
- Coalition Government
- Role of Opposition

### 5. Democratic Crisis

Introduction  
Causes of Emergency  
Consequences of Emergency  
Constitutional Impact

## History

### CLASS XII HISTORY PROJECTS 2026-27

1. The Indus Valley Civilization-Archaeological Excavations and New Perspectives
2. The History and Legacy of Mauryan Empire
3. "Mahabharat"- The Great Epic of India
4. The History and Culture of the Vedic period
5. Buddha Charita
6. A Comprehensive History of Jainism

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8. The Mystical Dimensions of Sufism
  9. Global Legacy of Gandhian Ideas
  10. The Architectural Culture of the Vijayanagar Empire
  11. Life of Women in the Mughal Rural Society
  12. Comparative Analysis of the Land Revenue Systems Introduced by the Britishers in India
  13. The Revolt of 1857- Causes; Planning & Coordination; Leadership, Vision of Unity
  14. The Philosophy of Guru Nanak Dev
  15. The Vision of Kabir
  16. An Insight into the Indian Constitution
  17. Comparative Study of Stupas and Pillar Edicts
  18. Comparative Study of Mughal and Vijayanagar

NOTE- OUT OF THESE ANY ONE NEED TO BE DONE AS DECORATIVE PROJECT FILE .

### ECONOMICS/Geography

#### **Practical File (Compulsory)**

**Prepare the pointers of all the chapters from Indian Economy.**

**Prepare the project for Economics as per the discussion in the class. Topics have been allotted as per the roll no.**

### Informatics Practices

#### Instruction

***A. Solve the questions in your fair copy.***

1. Create a DataFrame **Books** with columns: *Title, Author, Price*. Enter data for 5 books using list of dictionary.

2. Create a pandas Series from a list of 6 city names. Write code to display the first 3 entries using `head()` and the last 2 entries using `tail()`.
3. Write a pandas program to create a DataFrame storing salesmen details (name, zone, sales) of five salesmen using list having list.
4. Suppose a Series s5. Write a pandas program to calculate the cubes of the Series values.
5. Write a program to sort the values of a Series s1 in descending order of its indexes and store it into series s3.
6. Write a program to create a Series object using individual vowel characters.
7. Consider a series s8 that stores the number of students in each section of class 12 :- "A":39, "B":41,"C":42,"D":44  
First two sections have been given a task of selling tickets of Rs 100/- per ticket as part of social experiment. Write a code to display how much they have collected.