ENGLISH

Prepare a Project Work on **<u>any one</u>** topic: **(CBSE ASSESSMENT PROJECT)**

a) **Time Travel: Science, Myth, and Imagination** -Explore scientific theories, literary depictions, and cultural fascination with time travel.
b) **Indian Cinema: Evolution, Identity, and Global Impact** -Trace the journey of Indian cinema, its role in shaping cultural identity, and its influence worldwide.
c) **Artificial Intelligence in Healthcare: Opportunities and Ethical Concerns** -Study how AI is transforming healthcare, while addressing privacy, accuracy, and ethical issues.
d) **Indian Roadside Eateries: Culture, Economy, and Culinary Heritage** - Highlight the social and cultural significance of roadside food stalls, their economic role, and their place in India's culinary tradition.
e) **Representation of Women in Indian Literature** – Explore how female voices and struggles are portrayed across genres.
f) **Language Diversity in India: Unity in Multiplicity** – Study how multilingualism shapes identity and communication

Structured framework for preparing a **project file (consisting of 10-15 pages)** on any of the topics listed.

1. **Index**
2. **Certificate of completion**
3. **Content (**Title of the project, Brief introduction to the chosen chapter/topic, Key themes and relevance
4. **Aims and Objectives (**To understand the literary text in depth)
5. **Research (**Background of the author and text, Historical or social context of the theme, Related case studies, articles, or examples from real life, Supporting visuals -charts, timelines, images)
6. **Methodology (**Reading and textual analysis, Comparative study with other works or real-life events, Use of secondary sources: books, journals, online archives, Interviews/surveys)
7. **Report (**Detailed explanation of findings/Analysis of characters, themes, and literary devices, Connection of the text to broader issues e.g., survival psychology, gender roles, ethics, environment, Critical insights and personal reflections
8. **Topic Presentation in Class (Speech-** presentation of the project highlights, Use of visual aids: charts, PPT slides, posters, Engaging the audience with questions or short activities, Summarizing key takeaways
9. **Conclusion (**Restating the importance of the chosen theme, Reflection on what was learned through the project, Suggestions for further exploration or relevance in today's world)
10. **Bibliography**

MOSAIC EXHIBITION WORK

(Only for those students selected by the teacher)

Topics for Book Cover Designing (Use a chart paper to prepare the cover page and back page.)

1. **Hamlet** – Tragedy, revenge, and the iconic skull motif.
2. **Macbeth** – Ambition, fate, and the haunting image of blood and daggers.

3. **Othello** – Jealousy, betrayal, and the symbolism of the handkerchief.
4. **Romeo and Juliet** – Love, fate, and the rose as a symbol of passion.
5. **The Merchant of Venice** – Justice, mercy, and the scales of balance.
6. **Pride and Prejudice** by Jane Austen – Romance, social class, and wit.
7. **The Great Gatsby** by F. Scott Fitzgerald – Jazz Age glamour and the green light.
8. **Frankenstein** by Mary Shelley – Science, creation, and morality.
9. **The Kite Runner** by Khaled Hosseini – Friendship, betrayal, and redemption.
10. **Jane Eyre** by Charlotte Brontë – Love, independence, and gothic mystery.

PHYSICS

1) Complete the experiments marked in the lab Manual
2) Revise Chapter1 – Electric charges and Fields
Chapter 2 – Electric Potential and Capacitance
Chapter 3 – Current Electricity
3) Complete the Assignments given from Chapters 1, 2 and 3
4) Practice Numericals from Chapters 1, 2 and 3 of NCERT
5) Physics Project soft copy to be submitted before 1st July
(rosyg1912@gmail.com)
Mosaic Exhibition: Topics for Model Making
(Only for those students selected by the teacher)-Roll No 19 to 24

1. Frictional Electricity
2. Current electricity
3. Electromagnetic induction
4. Magnetic effects of current
5. Optics- Interference and Diffraction
6. Total internal reflection
7. Semiconductor devices -Diodes & Transistors

CHEMISTRY

Q.1 a) Which one out of CH3CH(Cl)CH2CH3 and CH3CH2CH2CH2Cl is more easily hydrolysed by KOH (aq)
b) Arrange the following compounds according to reactivity towards nucleophillic substitution reaction with CH3ONa
4- nitro chloro benzene, 2,4 di nitro chloro bemzene, 2,4,6, trinitrochlorobenzene

2

Q.2 Vinyl chloride is less reactive than allyl chloride. Why? 2
Q.3 Why do haloalkenes undergo nucleophillic substitution whereas haloarenes undergo electophillic substitution

2

Q.4 What is the difference between enantiomers and diastereomers. Illustrate with one example.

3

Q.5 Some alkylhalides undergo substitution whereas some undergo elimination reaction on treatment with bases. Discuss the structural features of alkyl halides with the help of examples which are responsible for this difference?

3

Q.6 Give the IUPAC names of the following: -
(a) o-Br-C6H4CH(CH3)CH2CH3
(b) CH3C(Cl)(C2H5)CH2CH3
(c) Cl-CH2 C ≡ C-CH2-Br

3

Q.7 Methyl chloride, methyl bromide, ethyl chloride and some chlorofluoromethanes are gases at room temperature. Higher members are liquids or solids. As we have already learnt, molecules of organic halogen compounds are generally polar. Due to greater polarity as well as higher molecular mass as compared to the parent hydrocarbon, the intermolecular forces of attraction (dipole-dipole and van der Waals) are stronger in the halogen derivatives. That is why the boiling points of chlorides, bromides and iodides are considerably higher than those of the hydrocarbons of comparable molecular mass. The attractions get stronger as the molecules get bigger in size and have more electrons.
i)Draw all the possible isomers structure of bromobutane and arrange them in increasing order of boiling points. (2 marks)
ii)Even though haloalkanes are polar compounds these compounds are least soluble in water. Why? (1 mark)

iii) How will you distinguish between chloroethane and bromoethane? (1 mark)

4

Q.8 How the following conversions can be carried out?

i) But-1-ene to n-butyliodide
ii) 2-Chloropropane to 1-propanol
iii) Isopropyl alcohol to iodoform (iv)
iv) Chlorobenzene to p-nitrophenol
v) 2-Bromopropane to 1-bromopropane

5

Q9. Arrange in increasing order of boiling points. 5
(a) Bromomethane, Bromoform, chloromethane, Dibromo-methane
(b)1-chloropropane, Isopropyle chloride, 1-Chlorobutane.
(c) 1-chloropropane, 1-bromopropane, 1-iodopropane
Q.10 How the following conversions can be carried out?
But-1-ene to n-butyliodide
2-Chloropropane to 1-propanol
Isopropyl alcohol to iodoform
Chlorobenzene to p-nitrophenol
2-Bromopropane to 1-bromopropane

5

Q.11 Complete the practical file work
Q.12 Complete the project file work soft copy only.
Q.13 Complete the project/model according to your subjects allotted for mosaic exhibition. Roll no 25-30 will do for chemistry.

BIOLOGY

A. Write all the experiments in your Lab file and draw all the diagrams.
B. Prepare a project on any human condition or any disease with latest medical report.
C. Prepare a working model according to the following roll no.
   Roll No. 7- Hydroponics Farming System
   Roll No. 8- Artificial Kidney Working Model
   Roll No. 9- Sewage treatment working model
   Roll No. 10- DNA Extraction + DNA Double Helix Rotating Model
   Roll No. 11- Vaccine working mechanism model
   Roll No. 12- DNA Fingerprinting Demonstration

MATHEMATICS

- Complete all assignments from the chapters completed in class.
- Revise all completed chapters thoroughly.
- Solve all textbook:
  - ❖ Examples
  - ❖ Exercises
- Complete Maths Lab Activities from the Maths Lab Manual.
- Find and write 1 real-life applications of each chapters covered on ruled sheets.
- Prepare a separate formula notebook including:
  - ❖ Important formulas
  - ❖ Theorems
  - ❖ Properties and identities
- Solve 2 Case Study questions from each chapter on ruled sheets.
- Practice previous years' CBSE board questions from the completed chapters.
- Solve one worksheet every week to improve speed and accuracy.
- Read about the contribution of any one famous mathematician.
- Keep all classwork, homework, assignments, and practical records neatly completed and updated.

Kindly Note: Students allotted Maths Models for Mosaic should submit after holidays.

Submit formula notebook separately and ruled sheets in a file after holidays.

COMPUTER SCIENCE

TOPICS: Functions, SQL and Project Planning

PART A – PYTHON PROGRAMS (USING FUNCTIONS)

Write programs in Python using functions:

1. Find factorial of a number
2. Check whether a number is prime
3. Find largest among three numbers
4. Calculate sum and average of a list
5. Check whether a string/number is palindrome
6. Count vowels in a string
7. Search an element in a list
8. Display a menu-driven program using functions

PART B – SQL PRACTICE

Using MySQL:

Create database: SCHOOL
Create table: STUDENT

Table structure:

- RollNo
- Name
- Class
- Marks
- City

Insert 5 to 10 records.

Write SQL queries for:

1. Display all records
2. Display selected columns
3. Show records where marks > 75
4. Sort records in ascending/descending order
5. Update a record
6. Delete a record
7. Use AND, OR, BETWEEN, LIKE operators
8. Find maximum marks

9. Find average marks
10. Count total students
11. Use GROUP BY clause for city-wise grouping

PART C – CBSE PROJECT PLANNING (THEORY WORK ONLY)

Students are not required to complete full project coding during holidays.

They must prepare a **project planning file** including:

1. Project Title
2. Objective
3. Features
4. Hardware and Software Requirements
5. System Analysis (Existing System and Proposed System)
6. System Design (Flowchart, basic DFD, ER diagram)
7. Database Design (tables, fields, primary key)
8. Module Description

SUBMISSION INSTRUCTIONS:

- Python programs must be written in practical notebook
- SQL queries must be written in practical notebook
- Project planning must be prepared in a separate file
- No complete project implementation is required during holidays

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GENERAL INSTRUCTIONS:

- Work must be neat and properly structured
- Focus on concept clarity and revision
- This will be used for internal assessment and viva
- Submit after summer vacation on the given date

Mosaic Exhibition Project – Students of classes 12 Emerald and Diamond will create a Mini Project on different topics showcasing their progress in Python Programming and will submit their work by 2nd July, 2026. Make sure that the project is creative and solves a real problem.

PHYSICAL EDUCTION

Assignment file

1. You have to organize a two days Basketball or Football Interschool tournament for junior boys and junior girls consisting of eight teams each. The tournament will take place in 4 weeks' time. You have been given a budget of Rs. 50,000/- Plan out the management of the tournament along with a timeline of preparation & events including the details regarding committees involved, tournament fixture and income expenditure report.
2. Make a weekly training program for optimum health & longevity - combining endurance, strength, speed, flexibility & coordinative abilities. Mention the details of the volume and intensity of the exercise in terms of repetition, sets, 1RM, progressive overloading, target muscle group, recovery & nutrition etc.

Lab Manual

1. Administration of Sai Khelo India Fitness test on two subjects (take consent from the subject & their parents) and write all the steps.
2. Anyone IOA recognizes as a team sport/ game of choice. Labelled diagram of field & equipment and also mention its rules, terminologies and skills and famous Indian and international players.
3. Yoga: As prevention for lifestyle diseases - Write down the procedure, benefits and contraindication of all the Asanas.

VALUE EDUCATION HOLIDAY HOMEWORK

CLASS XII

Mental Health Awareness Collage

- Paste magazine cut-outs or drawings.
- Include positive messages:
    - “It’s okay to ask for help.”
    - “Mental health matters.”
    - “You are not alone.”

Use calming colours like blue, lavender, and green.