D.A.V. PUBLIC SCHOOL, ACC JAMUL
## SUMMER VACATION HOME WORK
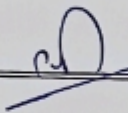## (2025-26)
CLASS-XII A

SUBJECT- ENGLISH

1. Design a flyer to advocate on the ' Importance Of Language'.
2. Make a table, listing any 10 states of India and mentioning the most popular local language spoken there.
3. Make a project on any of the following topics:
1. Child Labour
2. Poverty in India
3. Child Marriage
4. Bangle Industry of Firozabad
5. Hazards of ragpicking.

Subject teacher: 1. _____   2. _____

SUBJECT- PHYSICS

1. Written work of all the listed experiments of both the sections (SECTION A AND SECTION B) In lab manual
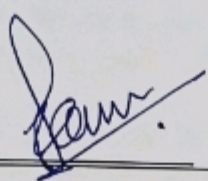2. Written work of all the activities (SECTION A AND SECTION B)

Subject teacher: 1. _____   2. _____

SUBJECT- CHEMISTRY

1. Write all the examples , intext questions and exercise questions given in Chapter 1 (Solutions)
2. **Art Integrated activity-** Power point presentation on following topics (minimum 15 slides)
   a) Osmosis, osmotic pressure and its application and biological significance of osmosis (Roll no : 1.4,7,10,13,16,19,22,25
   b) Reaction intermediates.(Carbocations, carbanions & Free radicals) Electron displacement effects (Inductive effect, Electromeric effect, Resonance effect, Hyperconjugation) (Roll no :2,5,8,11,14,17,20,23,26
   c) Carbohydrates, proteins ,Nuleic acid (D.N.A ,R.N.A). (Roll no : 3,6,9,12,15,18,21,24)
3. **Investigatory Project**
(a) Study of adulterants in food stuffs
   (Roll no : 1,5,9,13,17,21,25)
(b) Study of the quantity of casein present in different samples of milk. (Roll no : 2,6,10,14,18,22)
(c) Detection of caffaine in different samples of tea leaves.(3,7,11,15,19,23,26)
(d) Determination of contents of cold drinks (Roll no : 4,8,12,16,20,24)

4. **PRACTICALS**

Subject teacher: 1. _____   2. _____
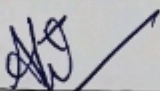
SUBJECT- BIOLOGY

[Practical based activities]

1. Prepare a temporary mount to observe pollen germination
2. Flowers adapted to pollination by different agencies (wind, insects, birds).
3. Pollen germination on stigma through a permanent slide or scanning electron microscope.
4. Controlled pollination - emasculation, tagging and bagging.

Subject teacher: 1._____   2._____

SUBJECT- MATHEMATICS

1. Write all Trigonometry formula of class XI NCERT IN PROJECT FILE
2. Write all trigonometry ratio value from $0°$ to 2π Including $(0, \pi/6, \pi/4, \pi/3, \pi/2, \pi, 3\pi/2$ $2\pi, 3\pi, 4\pi$, and all other trigonometric value circular value of all $0°$ to 2π IN PROJECT FILE
3. Write all complementary angle formula for trigonometry function for all quadrant(including multi[ple of π and multiple of $\pi/2$ IN PROJECT FILE
4. Solve the all questions (exercise and examples) of Matrices of NCERT book in NCERT COPY

Subject teacher: 1._____   2._____

SUBJECT- IP

PRACTICAL ASSIGNMENT
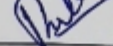### .1 Data Handling

1. Create a panda's series from a dictionary of values and array.
2. Given a Series, print all the elements that are above the 75th percentile.
3. Create a Data Frame quarterly sales where each row contains the item category, item name, and expenditure. Group the rows by the category and print the total expenditure per category.
4. Create a data frame for examination result and display row labels, column labels data types of each column and the dimensions
5. Filter out rows based on different criteria such as duplicate rows.
6. Importing and exporting data between pandas and CSV file

2. Visualization

1. Given the school result data, analyses the performance of the students on different parameters, e.g. subject wise or class wise
2. For the Data frames created above, analyze, and plot appropriate charts with title and legend
3. Take data of your interest from an open source (e.g. data.gov.in), aggregate and summarize it. Then plot it using different plotting functions of the Matplotlib library.

3. Data Management

1. Create a student table with the student id, name, and marks as attributes where the student id is the primary key.
2. Insert the details of a new student in the above table.
3. Delete the details of a student in the above table.
4. Use the select command to get the details of the students with marks more than 80.
5. Find the min, max, sum, and average of the marks in a student marks table. 6. Find the total number of customers from each country in the table (customer ID, customer Name, country) using group by.
7. Write a SQL query to order the (student ID, marks) table in descending order of the marks.

Subject teacher: 1._____   2._____

SUBJECT- PE

Project work
Physical fitness
1.50m race
2.600m run/walk
3.Partial curl up
4.Sit and reach test
5.Pushups (boys)
6.Modified pushups (girls)

Yogasana for life style diseases
1. Hypertension
2. Dibeties
3. Obesity
4. Backpain
5. Asthma
Two asanas for each lifestyle disease

Any one game of your own choice (Kho Kho, volleyball,Handball)
1.History
2.Five rules
3.Skills
4.Terminology
5.Ground marking

Subject teacher: 1._____ 2._____

SUBJECT- AI

Capstone Project:
Capstone Project Guidelines:
• In a group, minimum 3 and maximum 5 students are allowed.
• Their projects should be aligned with any of the SDGs.
• Students will complete their Capstone Project in Class XII and complete the project documentation.
• Video of the Capstone Project should be exactly of 3 minutes duration.
• The video will have the following components:
a. Problem statement
b. To which SDG the project is aligned to
c. AI concept/domains/algorithms
d.Working of the project
e. Conclusion
f. Acknowledgement to the teacher
. Topics:-
ROLL NO.- 1,4,7, 10 - Industry , innovation and infrastructure
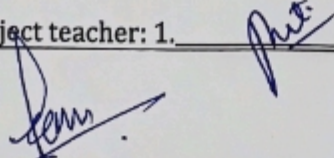ROLL NO.- 13,16,19, 24 - Affordable and Clean Energy
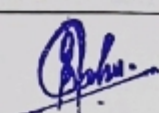ROLL NO.- 2,5,8,11,14 - Sustainable cities and communities
ROLL NO.- 17,20,23,26 - Decent work and economic growth
ROLL NO.- 3,6,9,25 - Good health and well being, Quality of Education

ROLL NO.- 12,15,18,21,22 - Responsible Consumption and production

Subject teacher: 1._____ 2._____

CLASS TEACHER   **PRINCIPAL**