



JYANTI PRASAD

D.A.V. PUBLIC SCHOOL

• GANAUR •



JYANTI PRASAD D.A.V. PUBLIC SCHOOL

DAV

SUMMER HOLIDAYS' HOMEWORK

CLASS: XII SCIENCE

SESSION 2026-27

DATE: 25 MAY 2026 TO 30 JUNE 2026



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GENERAL INSTRUCTIONS

1. Complete the holiday homework neatly and sincerely.
2. Use a separate notebook/file as instructed by the subject teacher.
3. Write your name, class, section, and roll number clearly on every notebook/project.
4. Maintain proper handwriting and presentation.
5. Do the work independently. Parents may guide, but students should complete the work themselves.
6. Submit the homework on the reopening day after summer vacation.
7. Revise the syllabus covered in class regularly during the holidays.
8. Read newspapers, storybooks, and other informative materials daily to improve language skills.
9. Practice writing, reading, and learning tables/formulas every day.
10. Avoid excessive use of mobile phones, television, and video games.
11. Spend quality time with family and follow a healthy daily routine.
12. Keep your surroundings clean and follow good habits.
13. Participate in creative activities such as drawing, craft, yoga, gardening, or music.
14. Learn something new during the holidays and make productive use of your time.
15. Complete all projects and activities as per the given instructions.
16. Students are advised to stay safe and take care during the summer season.
17. Drink plenty of water and avoid going out in extreme heat unnecessarily.
18. Holiday homework will be assessed after the vacation.

ENGLISH

1 Read the following lessons carefully and make a question bank containing at least a hundred questions to be used in the '**Interclass Quiz Competition**'.

Flamingo:

- Lesson-1 The Last Lesson
- Lesson -2 Lost Spring
- Poem -1 My Mother At Sixty Six
- Poem -2 Keeping Quiet

Vistas:

- Lesson -1 The Third Level

2. Write a notice in 40-50 words to be put up on your school notice board informing the students about 'English Week' to be celebrated in your school during Summer Vacation. Invent all the details.

3. You have planned to celebrate the '**Grandparents Cultural Evening**'. Draft an invitation for the same to be sent to your family, friends and relatives. Invent all the details.

4. **Make a project on the topics given below according to the roll numbers:** (At Least 18-20 pages)

Legal Literacy (1-5)

RTE: A Step to Stop Child Labour: (1-10)

Role of Social Media (6-15)

Juvenile Delinquency (11-20)

Old Age Homes (11-25)

The Trolley Problem: (21-31)

Digital Learning and It's Effects (26-31)

5. Prepare a speech on above mentioned topics for speech competition to be held on July 5,2024 (tentative)

6. Read the great tragedy 'King Lear' by William Shakespeare. On the basis of your reading write an elaborated review of it. Do draw the pen portraits of all the main characters.

Note: 1. Question no. 1 & 2 are to be done in fair notebook.

2. Question number 3 is to be done on the Drawing sheet.

3. Question number 4 & 6 are to be done on the Assignment sheets.

PHYSICS

1. Solve worksheet 1,2 and 3 in book

2. Practice NCERT questions (Back exercise and intext)

3. Do practice of case study and MCQ's of chapter 1,2 and 3.

4. Prepare a project according to Roll No.

1,6,11,16,21,26,31 (Capacitor and their applications in our daily life)

2,7,12,17,22,27 (AC Generator)

3,8,13,18,23,28 (Transformer)

4,9,14,19,24,29 (Rectifier)

5,10,15,20,25,30 (Interference and Diffraction)

Complete your lab manual

List of practicals

SECTION -A

1. To find the resistance of a given wire / standard resistor using a metre bridge.

2. To verify the laws of combination (series) of resistances using a metre bridge.

3.. To determine the resistance of a galvanometer by the half-deflection method and to find its figure of merit.

4. To find the frequency of AC mains with a sonometer

SECTION -B

1. To find the focal length of a convex mirror using a convex lens.

2. To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$.
3. To find the focal length of a concave lens using a convex lens.
4. To find the refractive index of a liquid using a concave mirror and a plane mirror.

List of activities

Section -A

1. To measure resistance, voltage (AC/DC), and current (AC) and check the continuity of a given circuit using a multimeter.
2. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
3. To assemble the components of a given electrical circuit.

Section -B

1. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.
2. To observe diffraction of light due to a thin slit.
3. To study the nature and size of the image formed by a (i) convex lens, or (ii) concave mirror, on a screen by using a candle and a screen (for different distances of the candle from the lens/mirror)

CHEMISTRY

1. Make a **Investigatory Project**. Topics will be assigned in class group.
2. Prepare **Lab Manual** as per prescribed CBSE Curriculum.
3. Solve **PYQ'S** of Ch-1, 2 and 6 in fair notebook. (Atleast 20 from each chapter)
4. Prepare **one chart** related to organic chemistry (any topic)
5. Solve **Assignments** on A4 SIZED SHEETS -

Assignment :1

1. Why does the conductivity of a solution decrease with dilution?
2. Consider the reaction: $\text{Cr}_2\text{O}_7^{2-} + 14\text{H}^+ + 6\text{e}^- \longrightarrow 2\text{Cr}^{3+} + 7\text{H}_2\text{O}$ What is the quantity of electricity in coulombs needed to reduce 1 mol of $\text{Cr}_2\text{O}_7^{2-}$ to Cr^{3+} ?

3. The conductivity of 0.20 M solution of KCl at 298 K is 0.0248 S/cm. Calculate its molar conductivity.
4. Express mathematically relationship among the resistance (R) and specific conductivity ?
5. Why is it not possible to measure the single electrode potential?
6. Why does an aqueous solution of NaI on electrolysis give H₂ gas at the Cathode and not sodium metal?
7. How much charge is required for the reductions of 1 mol of CH₃NO₂ to CH₃NH₂?
8. Can you store copper sulphate solutions in a zinc pot? Given $E^\circ_{\text{Cu}^{2+}/\text{Cu}} = 0.34 \text{ V}$
 $E^\circ_{\text{Zn}^{2+}/\text{Zn}} = -0.76 \text{ V}$
9. Suggest a way to determine the molar conductivity value of water.
10. If a current of 0.5 ampere flows through a metallic wire for two hours, then how many electrons flow through the wire?

ASSIGNMENT 2 and 3 will be shared in group.

MATHEMATICS

Ch. 2 - Relations and Functions

Ex. - 2.1 (all questions)

Ex. - 2.2 (all questions)

Ex. - Misc. Ex. (all questions)

Ch. 3 - Matrices

Ex. 3.2 - Q.No. 13 to 22

Ex. 3.3 - All questions

Misc. Ex. - All Questions

Ch. 4 - Determinants

Ex. 4.3 - All questions

Ex. 4.5 - All questions

Ex. 4.6 - All questions

Misc. Ex. - All questions

Ch. 5 - Continuity and Differentiability

Ex. - 5.2 - All Questions

Ex. - 5.3 - All Questions

Ex. - 5.4 - All Questions

Note - Do holiday homework in a Separate New A4 plain paper Register.

BIOLOGY

1. Prepare a project based on topics given in your group.

2. Project should be based on the following headings...

-Title of the project Index

-Reason/ relevancy for choosing the topic.

-Introduction of the topic

-Detailed Information of the topic

-Research work/ Case studies

-Conclusion

-Bibliography

3. Prepare your practical record and complete all practical in it.

4. Complete the given assignments in the fair notebook.

ASSIGNMENT: 1

Q1. Draw a T. S. of anther and explain it.

Q2. Explain megasporogenesis with diagrams.

Q3. Explain microsporogenesis.

Q4. Draw a labelled diagram of monocot and dicot seed.

Q5. Explain different types of pollination with example.

Q6. List post fertilization changes in angiosperms.

Q7. Define apomixis. How are apomictic seeds useful to farmers?

Q8. What is polyembryony. How is it formed?

Q9. What are cleistogamous flowers? Is cross pollination possible in them? Why or why not?

Q10. What are outbreeding devices? Explain.

Q11. A farmer wants to stop inbreeding depression in one of the plants. What method should he adopt to prevent it? Explain.

Q12. Give some characteristics of insect pollinated & wind pollinated flowers.

Q13. How does Vallisneria & hydrilla pollinate? Mention the process in brief.

ASSIGNMENT: 2

Q1. Compare between oogenesis and spermatogenesis.

Q2. Explain menstrual cycle in human females.

Q3. Explain events of fertilization in humans.

Q4. Define implantation and its events.

Q5. How does placenta work as an endocrine tissue?

Q6. What is colostrum? How is it important?

Q7. Explain ART & its various methods.

Q8. Removal of gonads is not considered as a good contraceptive method. Why?

Q9. What are different types of contraceptives? Explain with working & example of each.

Q10. What is amniocentesis? Why is it banned?

Q11. What are the reasons of population explosion in India?

Q12. Draw a well labelled diagram of human gametes.

Q13. Define the following terms: Menarche, Gastrulation, Parturition, Lactational amenorrhea

Q14. What is MTP? Under what conditions, should it be allowed?

Q15. Mention the function of the followings in humans

Ovary, Prostate gland, Epididymis, Leydig cells, Umbilical cord & Amniotic fluid

PHYSICAL EDUCATION

- Write your practical file neatly and complete all the pending work.
- Prepare assignments for Lesson 1 and Lesson 4.
- Solve the case studies given in Lesson 1 and Lesson 4.
- Prepare a project on Yoga using A4-size sheets with proper presentation and illustrations.
- Prepare an assignment on Pranayama and Kriyas.

INFORMATICS PRACTICE

Q1. What is referential integrity constraint? How is it applied on tables? What precautions need to take while applying referential integrity constraint? (write in fair note book)

Q2. Sub-schema of two tables namely Employee and Department respectively given below:

Attribute/Column Name	Datatype	Size	Constraint
EmpNo	Integer	4	Primary key
Ename	Varchar	50	Not null
Job	Varchar	10	Not null
HireDate	Date	-	Check (HireDate>01-01-2000)
Salary	Decimal	(10,2)	Default 0
Commission	Decimal	(6,2)	Default 0
DeptNo	Integer	3	Foreign key

Attribute/Column Name	Datatype	Size	Constraint
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DeptNo	Integer	3	Primary key
Dname	Varchar	50	Unique
Location	Varchar	50	Not null

1. Create both the table in MySQL format in fair notebook by following all the restrictions given above.
2. Insert 5-5 records in both of the tables which satisfy all the constraints.
3. Apply Primary key and foreign key externally in table as per requirement.
4. Do this work in fair notebook.

Q3. What is the role of foreign key constraint in RDBMS? How can we apply foreign key externally in any table? Explain with example.

Q4. When a column's value is skipped in an INSERT command, which value is inserted in database?

5. Write SQL commands for the following on the basis of given table CLUB.

Table : CLUB

COACH_ID	COACHNAME	AGE	SPORTS	DATOFAPP	PAY	SEX
1.	KUKREJA	35	KARATE	27/03/1996	1000	M
2.	RAVINA	34	KARATE	20/01/1998	1200	F
3.	KARAN	34	SQUASH	19/02/1998	2000	M
4.	TARUN	33	BASKETBALL	01/01/1998	1500	M
5.	ZUBIN	36	SWIMMING	12/01/1998	750	M
6.	KETAKI	36	SWIMMING	24/02/1998	800	F
7.	ANKITA	39	SQUASH	20/02/1998	2200	F
8.	ZAREEN	37	KARATE	22/02/1998	1100	F
9.	KUSH	41	SWIMMING	13/01/1998	900	M
10.	SHAILYA	37	BASKETBALL	19/02/1998	1700	M

- (a) To show all information about the swimming coaches in the club.
- (b) To list names of all coaches with their date of appointment (DATOFAPP) in descending order.
- (c) To display a report, showing coachname, pay, age and bonus (15% of pay) for all the coaches.

6. Write SQL commands for the following on the basis of given table STUDENT1.

Table : STUDENT1

No.	Name	Stipend	Stream	AvgMark	Grade	Class
1	Karan	400.00	Medical	78.5	B	12B
2	Divakar	450.00	Commerce	89.2	A	11C
3	Divya	300.00	Commerce	68.6	C	12C
4	Arun	350.00	Humanities	73.1	B	12C
5	Sabina	500.00	Nonmedical	90.6	A	11A
6	John	400.00	Medical	75.4	B	12B
7	Robert	250.00	Humanities	64.4	C	11A
8	Rubina	450.00	Nonmedical	88.5	A	12A
9	Vikas	500.00	Nonmedical	92.0	A	12A
10	Mohan	300.00	Commerce	67.5	C	12C

- (a) Select all the Nonmedical stream students from STUDENT1.
- (b) List the names of those students who are in class 12 sorted by Stipend.
- (c) List all students sorted by AvgMark in descending order.

Q7. Differentiate between DDL and DML sub-languages on the basis of commands and working.

Q8 What are MySQL functions? Explain Following MySQL functions:

CONCAT(), TRIM(), INSTR(), SUBSTR(), MID(), ROUND(), TRUNCATE(), SYSDATE(), NOW()

Q9. What do you understand by JOIN clause in MySQL? Explain various types of JOIN in MySQL.

Q10. What is the use of join in MySQL? Explain in detail with suitable examples using tables.

MUSIC

Prepare A Presentation On The Topic Of The Time Theory Of Ragas With One Chart Which Showing Time Division Of Ragas **रागों का समय ससद्ांत.**

Activity Work

Draw A Picture of Classical Instruments Like Table, Tanpura, Harmonium, Sitar etc.

Instructions

Project Should Be Hand Written And Well Decorated