

DAV PUBLIC SCHOOL, PUSHPANJALI ENCLAVE
SUMMER BREAK HOMEWORK (SESSION 2020-21)

Class XI

*Take care of yourselves...
Eat healthy, take proper rest
Study hard with honesty and total Concentration
Value Time, People and Relationships
Be positive and inspiring
STAY BLESSED, STAY HAPPY!*

►► ENGLISH

1. Re-read all the Chapters and Poems taught till date for Periodic Assessment.
2. Complete the Work:
 - (a) Extra Qs given / to be given based on Literature
 - (b) Qs / Exercises on various items of Writing Skills

* to be done in a copy or loose sheets
3. Cut & Paste Work
Cut egs. of Notices, Advertisements, Posters from old newspapers/ magazines etc. and paste them in the form of a COLLAGE under different headings, take 5 to 6 egs. of each -- Notice, Posters etc.
(to be done in your copy or A 4 size sheets -- whichever medium you find convenient)
4. Awaken the POET/ POETESS in you...
 - * Compose a POEM on MY MOTHER -- my Lifeline
(10- 15 lines)(you can assign any other title to your composition)
 - * Give your poetic tribute a lyrical/ melodious touch.
(Speaking Assessment
Activity -- to be recited in the Class)
5. CREATIVITY ON DISPLAY
 - * Prepare a PPT (6 to 8 Slides) on any ONE of the given topics :
 - (a) Changeover/ Makeover during Lockdown
 - (b) Lockdown-- my memorable time period
 - (c) My Observations/ Discoveries during Lockdown
 - (d) Safe and Happy stay at Home-- an adventurous ride
 - * PPT -- to be presented in the Class
 - * The essence is the emphasis on 'MYSELF'
6. Group /Class Discussion
 - * Prepare on the given topics:-
 - (a) Sung Heroes VS Unsung Warriors(refer to the present scenario, can refer to past events too)
 - (b) There is always a light at the end of the tunnel..
 - (c) Positive/ ' We shall overcome' attitude' -- wins in the midst of stress/ anxiety / fear/ tension
 - (d) Who is a TRUE LEADER?
 - (e) MOTHER NATURE -- symbolic of human life....
 - (f) Nature's fury –disastrous for mankind
7. Read Newspaper, especially the Editorial column to stay abreast with the latest happenings + to enrich your vocabulary.

►►PHYSICS

1. Do assignments for chapters
 - I. Units and Measurements
 - II. Motion in 1- D
2. Revise Chapters – Mechanical properties of solids ,Units and Measurements ,Motion in 1- D
3. Represent the data and details for following tasks through - Video making / e magazine / power point presentations etc
 - Comparison of pressure and temperature conditions of Delhi and Sikkim
 - ❖ Tabulation of data
 - ❖ Graphical representation for comparison of data
 - ❖ Reasons for difference in pressure and temperature conditions
 - ❖ Effects on crop production ,weather conditions , rainfall etc.
 - Design of buildings / bridges in Sikkim in terms of shape, height of buildings and type of materials.

►►MATHS

1. Revise the chapters Sets, Complex Numbers, Linear Inequalities for periodic assessment.
2. Complete the Assignments based on the above topics.

►►CHEMISTRY

1. What is the mass of 3 gram atoms of calcium?
2. One atom of an element weighs 1.8×10^{-22} g. What is the atomic mass of the element?
3. When a ball is hit with a hockey stick by a player, will it make a wave? Explain.
4. Which series are produced when electrons from the outer orbit jumps to 3rd orbit?
5. Give the IUPAC name and symbol of an element with $Z = 109$.
6. A molecule of O_2 and O_3 travel with same velocity. What is the ratio of their wavelengths?
7. What physical meaning is attributed to the square of the absolute value of wave function $|\Psi^2|$.
8. What do you mean by saying that energy of electron is quantised?
9. Calculate the concentration of nitric acid in moles per litre in a sample which has a density 1.41 g mL^{-1} and the mass percent of nitric acid in it being 75%.
10. Calculate the wavelength of the spectral line obtained in the spectrum of Li^{2+} ion when transition takes place between two levels whose difference is 2 and sum is 4.
11. Account for the following-
 - a) Mg has higher value of first ionization energy than Al.
 - b) The Ionization Energy of Na^+ is higher than that of Ne although they have same electronic configuration.
 - c) Electron gain enthalpy of O is less negative than that of S.
 - d) Mg^{2+} ion is smaller than O^{2-} ion although both have the same electronic configuration.
12. A solution is prepared by dissolving 5.85 g of NaCl in 90 g of water. Find the mole fraction of NaCl and H_2O .
13. Empirical formula of an organic compound is $C_2H_3O_2$. Its molecular weight is 118. Write its molecular formula.
14. The molecular mass of an organic compound is 78 u and its percentage composition is 92.4% C and 7.6% H. Determine the molecular formula of compound.
15. What are the number of emission lines produced when an electron is present in 5th orbit and comes to ground state?
16. Calculate the percentage of water of crystallisation in $CuSO_4 \cdot 5H_2O$.
17. Calculate the number of atoms of each type in 5.3g of Na_2CO_3 .
18. State Hund's Rule of maximum multiplicity and explain it by considering nitrogen atom.
19. Write the designation for orbitals with the following quantum numbers-
 - a) $n = 3, l = 1$
 - b) $n = 5, l = 2$.

20. The Uncertainty in momentum of an electron is $1.0 \times 10^{-3} \text{ kg ms}^{-1}$. What is the uncertainty in its position?
21. Write the electronic configuration of the following atoms/ions-
 F^- , O^{2-} , Cr , Cu^{2+} , Ca
22. Which is largest and which is smallest in size? Explain.
 Al^{2+} , Al , Al^{3+}
23. A photon of wavelength $4 \times 10^{-7} \text{ m}$ strikes on a metal surface, the work function of metal being 2.13 eV. Calculate the energy of the photon, kinetic energy of the emission and the velocity of electron.
24. What is the energy in joules required to shift the electron of the hydrogen atom from the first Bohr orbit to the fifth Bohr orbit and what is the wavelength of light emitted when the electron returns to the ground state?
25. Arrange the following in increasing order of the property indicated-
 a) F , Cl , Br , I (Electron Gain Enthalpy)
 b) Mg^{2+} , O^{2-} , Na^+ , F^- , N^{3-} (ionic size)
 c) Mg , Al , Si , Na . (Ionization Enthalpy)
26. a) Draw the shapes of various d – orbitals.
 b) Which orbital is non-directional?
27. Calculate the molarity of a solution of ethanol in water in which the mole fraction of ethanol is 0.040.
28. Calculate the wavenumber corresponding to the shortest wavelength transition in the Balmer Series of hydrogen atom.
29. State Heisenberg's Uncertainty Principle. Is it valid for macroscopic particles? Explain.
30. Explain why half – filled and fully- filled orbitals are extra stable?
31. While filling electrons, explain why 4s is filled before 3d?
32. Which quantum numbers determine -
 (i) Energy of electron in an orbital and,
 (ii) Orientation of orbital.
33. The density of 3M solution of NaCl is 1.25 g mL^{-1} . Calculate the molality of the solution.
34. What is the mole fraction of solute in 2.5 m aqueous solution?
35. To which Bohr's orbit in hydrogen atom, the electric transition corresponds to third line in the Balmer series?
36. In the reaction $2\text{A} + 4\text{B} \rightarrow 3\text{C} + 4\text{D}$
 When 5 moles of A react with 6 moles of B, then
 i) Which is the limiting reagent?
 ii) Calculate the amount of C formed.
 iii) Find the amount of excess reagent, if left.
37. Calculate the volume of 0.015 M HCl solution required to prepare 250 mL of $5.25 \times 10^{-3} \text{ M}$ HCl solution.
38. Calculate the normality of solution containing 31.5 g of hydrated oxalic acid in 1250 mL of solution.
39. How does metallic character vary in a period?
40. Write the difference between electron gain enthalpy and electronegativity.

Note –

- Revise all the concepts of Chapter - 1 , 2 and 3.
- Practice NCERT problems.
- Solve the assignment in class notebook.

▶▶COMPUTER SCIENCE

Revise chapter 1, 2 and 5 from NCERT e-book Computer Science XI

Practical File Work-

1. Paste screenshot of 8-bit ASCII code
2. Paste screenshot of ISCII code
3. Paste screenshot of Unicode
4. Paste screenshot of internal structure of a computer system

5. Using print statement WAP in Python to display your name horizontally with no space between the characters.
6. Using print statement WAP in Python to display your name horizontally with one space between the characters.
7. Using print statement WAP in Python to display your name horizontally with tab space between the characters.
8. Using print statement WAP in Python to display your name vertically.
9. Using print statement WAP in Python to display the characters of your name diagonally.
10. Using print statement WAP in Python to display your name horizontally with ^@^ pattern between the characters.
11. Using print statement WAP in Python to display arithmetic operations (+, -, *, /, //, %, **) on two no.
12. Using print statement WAP in Python to display message “#staysafe#” five times on screen.

▶▶ENGG. GRAPHICS

Note: Use A3 size file or sheet All sheets should be neat and clean .

- 1) Write in capitals (5 times from A to Z)
- 2) Learn types of lines
- 3) Draw
 - a) triangle , square , pentagon and hexagon of side 30mm and 40mm.
 - b) angle 72 with compass
 - c) an ellipse of major axis of 90mm and minor axis 60mm
 - d) a parabola having ordinate AB = 80 mm and axis EV = 40mm using intersecting line method
 - e) a helix of one convolution having pitch 60mm and dia of circle = 80mm
- 4) Draw orthographic projection of a point line or plane , do all examples given from pg. 80 to 90 .

▶▶BIOLOGY

- I) Draw well labelled diagram of the following -
 1. Plant cell and Animal cell
 2. Fluid mosaic model of plasma membrane
 3. Endoplasmic reticulum
 4. Golgi apparatus
 5. Structure of Mitochondria
 6. Sectional view of chloroplast
 7. Section section of cilia and flagella (electron microscopic view of internal structure)
 8. Types of chromosome based on the position of centromere
- II) Describe the structure of the following with the help of labelled diagrams
 - a) Nucleus
 - b) Centrosome
- III) Differentiate between
 - A) Bone and cartilage
 - B) smooth muscle fibres and Cardiac muscle fibres
- IV) Write a note on basidiomycetes.

►► **BUSINESS STUDIES**

- Complete the given Assignment.
 - Complete all the back questions of NCERT for chapter-1(Business, Trade and Commerce)
 - Art integration increases the students' engagement and understanding of concepts in a different perspective. In pursuance of AIL (Art Integrated Learning) objectives as prescribed by CBSE in its 2020-21 curriculum, students are required to do the following:
 1. In a group of five, prepare any one of the following :-
 - Role Play
 - Short Video/ Film
 - Cartoon
- On any of the following topics:
- (a) Distinctive features of business
 - (b) Objectives of business
 - (c) Role of profit in business
 - (d) Concept and Causes of Business Risk
 - (e) Nature of Business Risk
 - (f) Role of Commerce/ Auxiliaries to Trade in facilitating the exchange of goods and services (Commerce is the Backbone of Industry and other Business Activities)
 - (g) Features of Sole Proprietorship business
 - (h) Types of Partners
- Props/ Cards/ Collage showing information or graphs or pictures can be used to support your video.
- One of the group members will combine the video in sequence and submit it on my e-mail id:
 1. shwetanangia10@gmail.com
 2. shwetak@davpeps.onmicrosoft.com
 - 3.

►► **ECONOMICS**

Ch - DEMAND

- Q1. Define the term demand and explain briefly the factors affecting demand
- Q2. State Law of demand . Give reasons for its operation.
- Q3. Using a hypothetical schedule derive demand curve.
- Q4. Elaborate factors affecting market demand.
- Q5. Distinguish between:
1. Normal good and inferior good
 2. Substitute good and complementary good.
- Q6. What is meant by change in quantity demanded. How is it different from change in demand.
- Q7. Distinguish between:
1. Expansion of demand and increase in demand.
 2. Contraction of demand and decrease in demand
- Q8. How does the following affect the demand curve:
1. Increase in income of consumer incase of normal good.
 2. Fall in price of substitute good
 3. Rise in price of the good itself
 4. Favourable taste for a good
 5. Rise in the price of complementary good.
- Q9. Explain any four factors that causes leftward shift of demand curve.
- Q10. Define the following:
Market demand, demand function, demand schedule, demand curve, individual demand.

Do the given assignment

Very short answer questions

- Q1 What is meant by economizing of resources//?
- Q2 State two features of resources?
- Q3 Define marginal opportunity cost?
- Q4 Give two features of human wants.
- Q5 What is meant by economic problem?
- Q6 Give one example each of macroeconomic and microeconomic variable.
- Q7 What does production possibility curve depicts?
- Q8 State any two assumptions of PPC.
- Q9 What does slope of PPC shows?
- Q10 State two examples of growth of resources.
- Q11 What does shift in PPC indicates?
- Q12 How is underutilization of resources represented by PPC.

Short answer questions

- Q1 "Scarcity and choice go hand in hand". Discuss
- Q2 Why does economic problem arise?
- Q3 Explain the central problem of "What to produce".
- Q4 Explain the central problem of "Choice of technique".
- Q5 Explain the central problem of "Distribution of income".
- Q6 Explain the features of PPC.
- Q7 Give a numerical example where MRT is constant and also derive PPC from it.
- Q8 Recession in an economy has adversely affected its economic activities, how will it affect its PPC? Explain using diagram.
- Q9 A developing economy is making huge investment in research and development in the field of production . How will such investment help the economy? Explain using PPC
- Q10 If all resources are equally efficient to produce all the goods, what will be the shape of PPC? Explain with the help of schedule.
- Q11. Distinguish between micro economics and macro economics.
- Q12 The following table shows the production possibilities for 2 goods :

Possibility	A	B	C	D	E
X	0	1	2	3	4
Y	10	9	7	4	0

- a. Show these production possibilities a PPF. What do these combination indicate?
 - b. Label point F and G inside and outside the PPC respectively . What do these combination indicates?
 - c. Suppose the technological progress takes place in the production of goods , how does it affect the PPC?
 - d. Suppose destruction of resources takes place due to earthquake , how does it affect PPC?
 - e. Calculate the rate of sacrifice at each possibility.
- Q13. "Economy will always operate on but no inside PPC". Defend or Refute.

▶▶ ACCOUNTANCY

1. Complete the assignments on Accounting Equation and Rules of Debit and Credit.
2. Do exercise questions of the Chapter – Introduction to Accounting.
3. Revise Accounting Terminology .

►►GEOGRAPHY

- Students complete the given assignments in your official summer break so that the assessment is easier when the school opens in future.
- Complete the given questions and write answers by referring to the text book.
- Do the assigned maps using colour codes and index.
- Practice online map games such as using [sitera](http://sitera.com) and try making maps using mapchart.in
- Do Google Earth and enjoy searching the facts and beauty of earth.
- As per CBSE guidelines the subjects need to be linked to art integration, few activities are being assigned to you and you can choose any one (COMPULSORY) from the following for internal assessment:

Prepare a PPT on preventive and precautionary measures to be taken at the time of fire and earthquake keeping in mind the school campus (any one disaster)

Or

Using A4 size of map of political India add your creativity and fill the states drawing their art forms like Worli, Madhubani, symbolic festivals, tribes, food etc in the respective states, you can do cut paste activity or draw using colours.

Or

Make a paper mask of dimension 30cm*20cm, You can depict incredible India and reflect tourism in different states or Beauty of rivers.

Stay safe and healthy, use your leisure time in creative and productive activities.

- Complete the given assignments and map work as discussed in class.
- Read and revise your chapters.
- Do the activity linked to art integration using your creative imagination.
- The instruction for the same will be uploaded on MS TEAMS

►►HOME SCIENCE

A) Complete the given practicals on A4 size colored sheets-

1. Understanding oneself with reference to :

- a) Physical development in terms of age, height, weight, hip and chest circumference.
- b) Sexual maturity (Age at menarche, development of breast : girls) (Growth of beard, change in voice : boys)

2. List and discuss four to five areas of agreement and disagreement with-

- a) Mother
- b) Father
- c) Siblings or Friends
- d) Teacher

3. Write the recipes of five different healthy and nutritious snacks for an adolescent suitable in his or her context.

4. Prepare a time plan for yourself.

5. Plan a budget for a given situation-

Budget of a Family Picnic

OR

Budget of a Farewell Party

B) Revise and learn all the chapters done in the class.

▶▶FOOD PRODUCTION

- A) Complete the given practicals on A4 size colored sheets -
1. Draw the kitchen organization chart of a commercial kitchen.
 2. Prepare a checklist to keep your food production lab clean after work.
 3. Write names about twenty different types of kitchen equipments and classify them accordingly.
- B) Complete the given assignments of chapter 3 and 4 in registers.
- C) Revise and learn all the chapters done in the class.

▶▶ INFORMATICS PRACTICES (IP)

- Revise the syllabus covered for Class Test after Summer Break.
- Solve and Execute the following Problems in Python and then write in the Register.

LIST OF PRACTICALS

1. WAP to accept the required details for a student of your school and display them in this format.

Name of School	
Student Name: PQR	Roll No: 99
Class: XI	Section: A
Address : Address Line 1	
Address Line 2	
City: ABC	Pin Code: 999999
Parent's/ Guardian's Contact No: 9999999999	

2. WAP to input two numbers from the user and find their sum, difference, product, floating division, quotient, remainder and exponentiation. (WORKING WITH ARITHMETIC OPERATORS)
 3. WAP to accept the Name, Class, Marks of 5 subjects and calculate total, percentage. Display the result sheet.
 4. WAP to accept the radius of a circle and calculate its area and perimeter.
 5. WAP to accept the length, breadth of a rectangle and calculate its area and perimeter.
 6. Write a program to repeat the string "GOOD MORNING" n times. Here n is an integer entered by the user.
 7. Write a program to find the average of 3 numbers.
 8. Write a Python program to calculate the amount payable if money has been lent on simple interest. Principal or money lent = P, Rate = R% per annum and Time = T years. Then Simple Interest (SI) = $(P \times R \times T) / 100$. Amount payable = Principal + SI. (P, R and T are given as input to the program.)
 9. WAP to accept a number n and a string from the user. Print the string n times.
 10. Write a program that asks the user to enter one's name and age. Print out a message addressed to the user that tells the user the year in which he/she will turn 100 years old.
- Prepare a Presentation (5 to 10 slides) on the topic allotted to you (as discussed in the class).

▶▶WEB APPLICATIONS

- Revise the syllabus (HTML) covered for Class Test after Summer Break.
- Complete your register (Notes 1- 9)
- Complete the exercise of HTML in register.
- Design a website (5 pages) on the topic of your choice.

►►PSYCHOLOGY

1. Prepare a project report on what method you have used to spent the lockdown constructively? Write in a given format.
2. Do any four activities to make your family happy and Write a report on that.
3. Complete your assignments for Chapter 1 and 2.

►►POLITICAL SCIENCE

- Read and complete the assignments given for the following chapters:
 1. Constitution: Why and How
 2. Rights in the Indian Constitution
 3. Philosophy of the constitution
 4. Constitution as a living document
 5. Election and Representation
- Make a research based project on the impact of covid-19 pandemic around the world. Following are the guidelines :
 1. Project should be of about 20 pages.
 2. Give a proper structure to the project. Your research should be clear with no plagiarism.
 3. Find out about the effect of pandemic on the rights of people, on the economies of the world, and give a proper focus on any one state of India.
 4. Find out about the work of UN agencies like WHO ILO UNESCO regarding it.

►►HISTORY

- Complete online research for final History project.
- Revise Lesson 1 to 3

►►MARKETING

- 1) Complete the assignment given on unit 1
- 2) Revise thoroughly unit 1 of marketing.
- 3) Prepare a jingle on any of the following products

- *Noodles
- *chocolate
- *biscuits
- *detergent powder
- *incense sticks
- *milk powder

DAV COLLEGE MANAGING COMMITTEE
ESTD. 1885
DAV Public School
Partnership School, New Delhi

HOLIDAY HOMEWORK Eco Club
DAV Public School

Eco Clubs are one way to encourage interest and involvement and can be very rewarding, especially when children are given responsibility to make their own decisions about the changes they want to see and the opportunity to improve their own school environment and their nature. Schools are keen to play their part and are doing so in different ways. The following is the list of the activities that can be taken as per the grade of the students as a part of holidays homework (not mandatory), giving a little contribution towards the betterment of the environment.

Classes IX – XII
Make a short video (maximum of 2 min) on environment or click an original photograph showing the beauty of natural environment around you.

The homework is to be submitted after summer break to the respective class teacher.
Best entries will be awarded a participation certificate by the Eco club.

Stay HOME, Stay SAFE
Stay Protected and Be Happy!