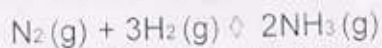# K.R.D.A.V.PUBLIC SCHOOL

HOLIDAY HOMEWORK
CHEMISTRY XI

Unit 1

Q.1. Define molality. What is relation between molality and mole fraction?

Q.2. Hydrogen reacts with N_2 to produce ammonia according to the equation

$N_2 (g) + 3H_2 (g) \rightleftharpoons 2NH_3 (g)$

Determine how much ammonia would be produced if 200 g of H_2 reacts with excess of N_2, [Atomic weight of N = 14, H= 1 u]

Q.3. Calculate number of moles in the following cases:

(i) 7.85g of Fe (Atomic weight of Fe = 56 u)

(ii) 4.68 mg of Si (Atomic weight of Si = 28u)

Q.4. If 2.0g of $CaCO_3$ is treated with 2.0 g of HCl, how many grams of CO_2 can be generated according to the following equation?

$CaCO_3(s) + 2HCl (aq) \rightarrow CaCl_2 (aq) + H_2O (l) + CO_2 (g)$
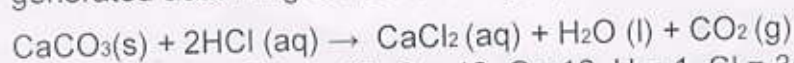
[Atomic weight of Ca = 40, C = 12, O =16, H = 1, Cl = 35.5 u]

Q.5. Calculated number of atoms in each of the following:

(i) 5.6 L of NH_3

(ii) 4.4 g of CO_2

(iii) 52 u of He

Atomic weight of He = 4 u

Q.6. A compound contains 54.2% C, 9.2% H and 36.6% oxygen, determine its empirical formula if its molecular weight is 88 u. [At. Wt. Of C=12, H=1, O=16u]

Q.7. Oxygen is prepared by catalytic decomposition of $KClO_3$. Calculate amount of $KClO_3$ required to produce 24 mole of oxygen. (At. Wt. Of K = 39, Cl = 35.5, O= 16 u)

Q.8. Concentrated H_2SO_4 is 98% weight and has density 1.84 g cm^{-3}. What volume of concentrated acid is required to make 5.0 L of 0.50 M H_2SO_4 solution?

Q.9. (i) State and explain Avogadro's law. Illustrate it with an example.

(ii) 500 ml of 0.250M Na_2SO_4 solutions is added to an aqueous solution of 15.00 g of $BaCl_2$ resulting in the formation of white precipitate of $BaSO_4$. How many moles and how many grams of $BaSO_4$ are formed? [Atomic weight of Ba = 137, Cl = 35.5, S = 32, O = 16u]

Q.10. Calculate the number of molecules present in

(i) 34.2g of cane sugar

(ii) a drop of water having a mass of 0.05g.

Q.11. Two oxides of a metal contain 27.6% and 30% of oxygen respectively. If the formula of the first oxi M_3O_4. Find the second.

Q.12. What is the mole fraction of methanol in solution containing 3.2 g of methanol in18 g of H_2O.

Q.13. Commercially available concentrated hydrochloric acid contains 38% HCl by mass.

(i) What is the molarity of this solution? The density is 1.19g/cm³.

(ii) What volume of concentrated HCl required to make 1.00L of 1.10 M HCl? (Ans: (a) 12.38M , (b) 123.8L)

Q.14. A solid mixture (5.0g) consisting of lead nitrate and sodium nitrate was heated below 600°C until the weight of the residue was constant. If the loss in weight is 28% find the composition of mixture. (Ans: $Pb(NO_3)_2$ = 3.32 g.)

Q.15. Convert the following into basic units

(i) 28.7 pm (ii) 5.15 μ m

Q.16. Explain Dalton's atomic theory and its drawbacks.

Q.17. On analysis a substance was found to have the following percentage K=31.84 Cl = 28.98 O = 39.18 Calculate its molecular formula if its molecular mass is 122.5

Unit : 2

Q.1. State Pauli exclusion principle.

Q.2. Why is it not possible to determine exact position and momentum of fast moving sub-atomic particles like electrons simultaneously? Name the principle.

Q.3. Calculate the energy and frequency of light required to excite an electron in

hydrogen atom from first energy level to fourth energy level. h= 6.626×10^{-34} Js.

Q.4. The frequency of radio waves is 1368 kHz. Calculate its wavelength (in meters) and energy.

Q.5. The mass of an electron is 9.1×10^{-31} kg. If its kinetic energy is 3.0×10^{-25} J. calculate its wavelength.

Q.6. Explain dual nature of electrons. Give de Broglie equation.

Q.7. (i) Write electronic configuration of Cr (24) and Cu (29).

(ii) An atomic orbital has n=3. What are possible of values of l and m

Q.8. A photon of wavelength 4×10^{-7} m strikes on the metal surface, the work function of metal being. 2.13 eV. Calculate:

(i) Energy of photon in eV.

(ii) The kinetic energy of the emitted electron.

(iii) The velocity of photoelectron. [1eV = 1.602×10^{-19} J]

Q.9. (i) Why are half filled and completely filled orbitals more stable?

(ii) Calculate the number of photons that provide 1 J of energy.

Q.10. What is atomic spectrum? Describe hydrogen spectrum and describe series of spectrum and the region to which do they belong? What is maximum number of emission lines when the excited electron of a H atom in n = 6 dropes to ground state.

Q.11. If n is equal to 3, what are the values of quantum numbers 1 and m?

Q.12. What is the Rydberg formula? How does it help to calculate the wave numbers of different series of lines of hydrogen spectra?

Q.13. How does Bohr's model explain simultaneous appearance of a large number of lines in the hydrogen spectrum?

Q.14. How do 1s and 2s orbital differ from each other?

Q.15. List the main points of difference between orbit and orbital.

Q.16. What were the main points of electromagnetic theory? What were its limitations? How have these been over come by Plank's quantum theory?

Q.17. Using the concept of quantum numbers, calculate the distribution of electrons aswell as maximum numbers electrons in the N shell.

Q.18. How the study of quantum numbers led to Pauli's exclusion principle?

Q.19. Find the number of protons, electrons and neutrons in $_{13}Al_3$ and $_8O$

Q.20. Which of the following orbital is not possible 1p, 2s, 3f, 4d?

Q.21. Write the electronic configurations? Cr, Cr3+, Na+, N3-, N2+

Q.22. What are the limitations of Bohr's model?

Q.23. What is the difference between Rydberg's formula and Balmer's formula?

Q.24. Why electronic energy is negative?

Q.25. What are quantum numbers and give the significance of each quantum number?

11th	Theory	Unit Test Syllabus Revision	Art
		Fundamentals	
		Pre Historic Rock Paintings	
		Indus Valley	
	Practical	5 sheet of Art file	
		3 Still life + 2 Compostion	

| XI medical | Biology | Learn ch -1 to 3 make herbarium of minimum 20 plants |

CLASS XI-MATHS HOLIDAY'S HOMEWORK

1. Do chapter wise assignment of ch-1.2.3.4

2. Revise same chapter from N.C.E.R.T and from EXTRA BOOK

3. Prepare your self for presentation an any one topic [following topics are]

a) Biography of famous mathematicians

b) Presentation an any topics which you have studied in class XI

4. Prepare 20 question (10 one marks,10 two marks)accordingto your group.

Kali Ram D A V Public School, Safidon

Class XI (English)

Holiday's Homework

1. **READING SECTION :-**

   (I)   Unseen passage – Evergreen Test Assignment 1 to 5 (pg. no. 16-25)

2. **WRITING SECTION:-**

   Article Writing -Evergreen Test Assignment -19,20 (pg. no. 167,168)

   Topic – "Trash Called Entertainment"

   " Delights And Usefulness of Walking"

   Letter Writing-Evergreen Test Assignment- 12 (pg. no. 137,138)

   Letter to the Editor

   Letter to the Editor suggesting some ways and means to reduce global warming

   Notice Writing : - Evergreen Test Assignment -1 (pg. n0. 73)

   Topic: Special Cultural Programme on the eve of Lohri

   Tour to the Rocket launching Station

3. **GRAMMAR SECTION :-**

   DETERMINERS-Evergreen Test Assignment-27 (pg. no. 203, 204) (EX.1-5)

   TENSES -Evergreen Test Assignment-29(pg. no.214 , 215)(EX.1-5)

   VOICE -Evergreen Test Assignment-32(pg. no. 229 , 230)(EX.1-5)

4. **LITERATURE SECTION :-**

   Learn Lessons discussed in class

   HORNBILL-Lesson- 1,2,3

   Poem-1,2

   SNAPSHOTS-Lesson-1,2,3

HOLIDAYS HOMEWORK PHYSICS (XI)

1) Learn all lessons.
2) Solve given assignments.
3) Practice previous year question papers.
4) Make the project.

K R DAV PUBLIC SCHOOL, SAFIDON
Holiday Home Work
BUSINESS STUDIES
XI

Q. Write and Learn the following questions:

1. State the different type of Economic Activities.

2. What are the objectives of Business?

3. What is the Role of Profit in business?

4. Define Trade. Explain briefly different types of trade.

5. What do you understand by Sole Proprietorship? Outline its features.

6. Outline the procedure for registration of a Partnership. Write the effects of non-registration of a partnership firm.

7. Case study related Questions

1. A famous doctor charges highly for consultation from his patients and refuses to treat the poor patients without consultation charges. He pays attention to the representatives and agents of Pharma co. and takes gifts and commission from them also.

In your view, is it professional behaviour of a doctor? Is he following the code of conduct of doctor?

2. A group of four friends setup a factory. This factory was set up in a residential locality. Its machines were very noisy. The children could not concentrate on their study without distraction. On the other hand, this factory provided employment to so many people.

Point out the values being affected here. Mention any three of them.

3. Alka, Komal and Kamal are partners in a firm. Kamal uses Rs 20 Lac of the firm, without any information to the other partners to purchase a house and he earns a profit of ₹ Five Lac on it. Which values are being violated here? Also tell, what will happen to the profit earned by Kamal?

Activity

Select a local enterprise and find out the objectives that enterprise.

_____

Class- X1 COMMERCE (ACCOUNTANCY)
SUMMER VACTION ASSIGNMENT

Revise the numericals and learn the very short answers of the following chapters

(1) Accounting equations
(2) Books of origin entry – journal
(3) Books of origin entry – cash book

2) Learn the following chapter
  (1) Meaning and objectives of accounting
  (2) Basic accounting terms
  (3) process and bases of accounting
     (4) double entry system

3) prepare project work on source documents of accountancy
   contents-
   1 cash memo
   2 invoice and bill
   3 receipt
   4 debit note
   5 credit note
   6 pay in slip
   7 cheque
   8 voucher – types :

HOLIDAY'S HOMEWORK (2019-20) CLASS:-11TH (POLITICAL SCIENCE)

1. Prepare a Project on "LOK SABHA ELECTION IN INDIA(2019)"

2.Prepare Power Point Presentation on following :-

TOPIC	ROLL NO
i. Constitution Why and How?	1 to 7
ii. Right in the Indian Constitution	8 to 14
iii. Election and Representation	15 to 21
iv. Executive	22 to 30

3.Revise full syllabus taught in month of April and May.
4. Slow learner students read ch. 1 to 4 and learn only one and three

1. Learn Question-Answers from Unit -1 Computer Organisation & OS
2. Framing 100 Objective Type Questions from Unit -3 Office Automation Tools (Ch-3 Word Processing (Writer))
3. Design in Practical <u>File:-</u>
(a) Draw a Computer Diagram With Input Unit, Processing , Output and Storage Units.
(b) Design a Bio Data (Resume) in Writer Software.
(c) Design a Letter/Application Formatting in Writer Software.
(d) Design a Find and Replace Command Demo. in Writer.
(e) Design a Auto Text Command Demo. in Writer.

HOLIDAY'S HOMEWORK (2019-20) CLASS:-11TH (HISTORY)

1. Prepare a Project on any one topic in the following topics:-

    1. Anthropological Research based on Darwin's Theory

    2. Critique of the Industrialization in Britain

    3. Relations and Impacts of past crusades

    4. Making and Unmaking of Mesopotamia

    5. Paradigms of Greeco-Roman Civilizatio

    6. Aspirations of women in Renaissance period

    7. Paths to Modernization of Japan/China

    8. An Exploratory study into Humanism

    9. Piecing together the past of Genghis Khan

    10. An in death study into the "now and then" paradigm of Christianity

    11. An exploratory study into the realism and the transmission of Humanistic ideas

    12. Scientific Revolution and the origins of modern science

    13. An exploratory study into the making of America

    14. Myriad Realms of Slavery in ancient,medieval and modern world

    15. Learning about global Sufism

    16. History of aborigines-America/Australia

2. Prepare Power Point Presentation on following :-

TOPIC	ROLL NO
1. Introduction to World History	1 to 10
2. From the Beginning of Time	11 to 20
3. Writing and City Life	21 to 30

3. Revise full syllabus taught in month of April and May.

4. **Slow learner students read ch. 1 to 4 and learn only one and three marks question –answer of covered lessons**

ECONOMICS HOLIDAY HOMEWORK
CLASS-11th

1] Prepare a project file on any topic related to your syllabus or choose any topic that are given below-

- Food supply channel in India
- Goods and Services Tax Act and its impact on GDP
- Self – help group
- Digital India – Step towards the future
- Make in India – The way ahead
- Health Expenditure [of any state]
- Micro and small scale industries
- Organic Farming – Back to the nature

2] Learn full syllabus which have been completed in your class.

Hindi Holiday Homework
Class XIA₄

1. Revision work:-

काव्य खंड- (पद मीरा और कबीर)

गद्यांश - पाठ नमक का दारोगा

पाठ भारतीय में गायिकाओं में बेजोड लता मंगेश्कर

अभिव्यक्ति और माध्यम- पाठ जनसंचार

2. Creative wok:-

Activity (1947-2019 तक सभी अखबारों की व्याखा

अपको कौन सी फिल्म पसंद है और उसमें कौन सा किरदार पसंद है क्यों ?

(Activity work- N.B.)

3. Written work

औपचारिक पत्र (2)

अनौपचारिक पत्र (2)

निबंध लेखन:-

1) मोबाईल फोन वरदान या अभिशाप

2) सर्वशिक्षा अभियान

3) उपभोक्ता संस्कृति का भढता प्रभाव।

4) लोकतंत्र में मिडिया का सामाजिक दायित्व।

फीचर लेखन :-

1) कंम्पूटर और हम

2) नशे के दलदल में धस्ती नयी पीढी

रिर्पाट लेखन :-

1) आपके घर के बाहर खडी मोटरसाइकल चोरी हो गई उसकी रिर्पाट थाने में लिखित रूप में किजिए

2) विद्यालय में हैड ब्याय और हैड गर्ल के चुनाव के लिए बुलाई गई सभा से संबंधित एक रिर्पाट लिखिए।

आलेख लेखन:-

1) प्रात जागिए और स्वास्थ रहिए

2) हरे भरे वृक्ष।