MATHEMATICS

1. In a school there are 20 teachers who teach mathematics or physics. Of these, 12 teach mathematics and 4 teach physics and mathematics. How many teach physics.
2. If A and B are two sets such that n (A U B) = 50, n(A) =28 and n (B) = 32, find n (A ∩ B).
3. Prove that : $2.7^n + 3.5^n - 5$ is divisible by 24, for all n $\in$ N.
4. Solve the equation $x^2 – 4x + 13$ by factorisation method.
5. Convert $\frac{1+3i}{1-2i}$ in Polar form.
6. A room has 6 doors. In how many ways can a man enter the room through one door and come out through a different door.
7. In how many ways can 5 letters be posted in 4 letter boxes/
8. Twelve students compete in a race. In how many ways first three prizes be given?
9. Find all pairs of consecutive odd natural number, both of which are smaller than 10, such that their sum is less than 40.
10. The marks scored by rohit in two tests were 65 and 70. Find the minimum marks he should score in the third test to have an average of at least 65 marks.
11. Prove that 12 + 22 + 32 +----------- +n2 > n3/3 for all n$\in$N.
12. Find the Radian measure of -47^0 30'

Revise and practice :-

Chapter No.3 and Chapter No's 3,4,6 & 8.

Revision Test on 17/7/2019 (Chapter No. 3 & 6)

Revision Test on 19/7/2019 (chapter No.4 and 8)

Project work Each student is to make a PPT (Min.10 slides) on any one of the following topics:

1) History of Pie
2) FIB0NACCI NUMBERS
3) Exploring Pascal's triangles
4) Use of Trigonometry in daily life.
5) Use of geometry in daily life.

Note:- Two marks to be allotted for unit test II

CHEMISTRY

Chapters:- Periodic Classification

LAQ

Q1.Discuss the characteristics of modern long form of periodic Table . Write its limitations and advances too.

Q2. Discuss the general trends in periodic properties :- I)Atomic Size II) ionization energy III) Electronegativity IV) Electron Gain Affinity V) Metallic Character and Non-metallic character . VI) valency .

Q3. Describe the main characteristics of S,P,d & f –block elements . Also write their general electronic configuration .

SAQ

Q1. Write short notes on :

   I)   Noble gases   II) Dobereiner Traids   III) Newlands Octaves Law

   IV) Mendeelev's periodic table   V) Isoelectronic species   VI) Vandar Waal's Radius

Q2.What is successive ionization energy ? Why $IE_{iii} > IE_{ii} > IE_i$ illustrate with one suitable example.

Q3. What is Diagonal Relationship ? Give an example In support of your example

Q4. What are transition elements ? why are they called so? Name the different transition series .

Q5. What are inner transition elements ? why are they called so ? Name the different series .

Q6. Zn, Cd & Hg are d-block elements but are not transition metals . Why?

Q7.Explain that the size of anion is larger than its parent atom while the cation of same atom has least size.

VSAQ

Q1.Define periodicity ?
Q2. What do you mean by hydride gap?
Q3. What are representative elements?
Q4.Why the electron affinity of Be and Mg are positive ?
Q5. Why the ionization energy of Mg is more than that of Na and Al?
Q6. Why halogens have very high negative electron gain enthalpies?
Q7. Why electron affinity of F is lesser than Cl , while the electronegativity of F is more than Cl?
Q8. Give the four examples of species which are isoelectronic with Ca^{2+}
Q9. Discuss Slater rule for effective nuclear charge with atleast three examples.
Q10. Write the electronic configuration of elements – Atomic no's – 9, 12, 24, 29, 43, 57, 58, 60 , 89, 90, 93.

ENGLISH

Subjective:-

1.Read play "THE NEW HANGMAN" and do the question answers.

   a. Write the Theme of the play
   b. Character sketch of: i) HANGMAN ii) CHAPLIN iii) GOVERNOR

2. Every Night introspect your whole day's activities and mark a dairy entry about 1 good thing that you did for others.

CREATIVE CORNER:-

1. In order to develop writing skills and have practical knowledge of posting letters, Write a letter to your friend telling her about your summer vacation plan and post that letter. After receiving that letter paste it in your notebook. Experience the eagerness of waiting for your reply and joy of receiving letter by post.

  2. Search about SDG5 and choose any 5 topics of debate. Write any 1 topic in detail   for your upcoming debate competition.

3. Write an article for your school Spectrum on topic 'Gender equality'.

4.Get up early in the morning and feel the magic of surroundings. Experience the first ray of sun and coolness of breeze, the chirping of birds and DO MEDITATION for at least 30 minutes every day.

5. Mothers don't have holidays, not even on Sundays. On holidays their work gets doubled, in order to show some respect towards her dedication Help your mother in household chores and also learn to cook her signature dish.

6. Family is the first school of every child and parents can give you the best advice which Google can't. Value your relations because you are blessed with them.   Switch off your mobile after 7 pm everyday and spend quality time with your family. Discuss and share your feelings and thoughts with your parents.

PHYSICS

Q1. If the velocity of light c, the constant of gravitation G and Planck's constant h be chosen as fundamental units ,find the dimension of mass, length and time in terms of c,g and h.

Q2. Find the value of 60 W on a system having 100 g, 20 cm and 1 min. as the fundamental units.

Q3. Assuming that the mass M of the largest stone that can be moved by a flowing river depends upon _'v' the velocity 'ρ' the density of water and on 'g' the acceleration due to gravity. Show that M varies with the sixth power of the velocity of flow.

Q4. The wavelength λ associated with a moving particle depends upon its mass m, its velocity v and Planck's constant h. Show dimensional relation between them.

Q5. The critical angular velocity ω of a cylinder inside another cylinder containing a liquid at which its turbulence occurs depends on viscosity η, density ρ and the distance d between the walls of the cylinder. Find an expression for ω.

Q6. Obtain an expression for the centripetal force F acting on a particle of mass m moving with velocity v in a circle of radius 'r'.

Q7. The period of vibration of a tuning fork depends on the length l of its prong, density d and Young's modulus Y of its material. Deduce an expression for the period of Vibration on the basis of dimensions.

Q8. If the units of force, energy and velocity are 20 N, 200 J and 5 m/s, find the units of length, mass and time.

Q9. If the value of atmospheric pressure is 106 Dynecm^{-2} , find its value in S.I. units.

Q10. Calculate the depth x to which a bullet penetrates a human body depends upon
(i) Coefficient of elasticity η
(ii) Kinetic energy.

BIOLOGY

Q: Draw well labeled diagrams of

 a) Female and male thallus of liver worts.
 b) Alternation of generation in angiosperms.

Q: Give the summarized account of photosynthetic pigments, storage material, and complexity of structure in different groups of algae.

Q: Draw a neat and clean well labeled life cycle of an angiosperm, using innovative methods.

Q: What do you understand by the term "three generations locked in seed?" Explain in detail.

Q: Gather any four seeds of dicotyledonous and monocotyledonous plants and paste them on sheets in a file giving brief description of any two of each.

Q: Diagrammatically explain haplontic, diplontic, and haplo-diplontic alternations of generations.

Q: In gymnosperms, cross pollination is accomplished by wind. The same is known as anemophily. Explore your knowledge and collect information about the rest of the agencies of pollination.

Q: Which alga is popularly called "devils apron" and why? Give a detailed account of the alga in support to your answer.

Q: Read the chapter-Structural organization in plants and animals.

Q: Revise the chapter- Plant and animal kingdom

(Hint: Consult your books for the answers)

ECONOMICS

NOTE: Project Report should be neatly presented

      Marks will be awarded for the Project

1.Study the demographic structure of your neighbourhood and develop a project on the topic, "Demographic structure of your neighbourhood".

 Comprise the following steps in preparing the Project Work –

i)Questionnaire Designing involving important questions related to the study.

ii)Collecting the data

iii)Classifying the data

iv)Presentation of the Data

v)Interpretation of the Data

2.Read the Chapter "Indian Economy on the eve of Independence" and Answer the following Questions:

i) Is India a Developing Economy? Explain with examples.

ii)Why was there a slow growth in industries earlier?

iii)Did Britishers have any positive impact of their rule in India?

3.Revise Chapter , "Frequency Diagrams: Histogram, Polygon and Ogive", " Arithmetic Line Graphs or Time Series Graphs", and "Measures of Central Tendency - Arithmetic Mean" and Answer the following Questions:-

i).When will a Histogram become a frequency polygon?

ii)Give another name for a Normal Curve?

iii)Give another name for Arithmetic Line graphs ?

iv)What do you think about the impact a Diagram or Graphic Presentation which is created

 on a reader's mind?

v)Do you think Measures of Central Tendency is an important aspect of Statistics?

vi)Arithmetic Mean gives Laughable Conclusions at times. State the reason.

BUSINESS STUDIES

NOTE- Prepare the Project neatly

      Marks will be awarded for the project.

1.Study few Women Entrepreneurs and then prepare a project report on the Topic, "Problems of Women Entrepreneurs in Business" stating important aspects about their personal and professional life. Also give a detailed report about atleast one women entrepreneur of India whom you find as an inspiration for you.

2.Read Chapter, "Social Responsibility of Business and Business Ethics" and Answer the following Questions:-

i)Assuming that you are a Business Woman , State the ethics that you would follow in your organisation.

ii)As a owner of a Business House, you have certain responsibilities towards the community.Can you explain few of them.

3.Revise Chapter-Business Services and Emerging modes of Business. Also answer few Questions:-

i)Why do you think online stores are important for us?

ii)Online Commerce has created a large space where buyers and sellers can exchange information and may enter in business transactions. State the four phases of doing online business.

iii)Why is Insurance important?

ACCOUNTANCY

1) Make a project report on Final Accounts. Refer to following contents for the project report:

a) Introduction of the company, Accounting Transactions, Journal Entries, Ledger Accounts, Trial Balance.

b) Based on Trial Balance, prepare Financial Statements and interpret the results through conclusion, Bibliography and Webliography.

c)Support the information through Bar graphs, Accouting Vouchers.

2) Solve 5 practical problems each from COGS, Ledger, GST and Trial Balance.

3) Learn theory from chapter 1 to 7 and 11.

POLITICAL SCIENCE

* PROJECT WORK

*Make a detailed study of ELECTION 2019, Analyse the results in various states with the name of the party and candidate who won,And submit the **report.**

*Write the Names and paste the pictures of Newly formed Cabinet with their portfolios.

* SELF STUDY

Make a detailed study of working of courts

*Write and Powers and functions of -

- Supreme Court

- High Court

*.SURVEY & REPORT WRITING.

 visit your village during the vacation. Make a detailed study of "PANCHAYATI राज SYSTEM" adopted in the village,..

Elections

Tenure

Hierarchy

Women in the panchayat

Submit your Report in a File.

*Prepare for UNIT TEST II., PORTION GIVEN BELOW-

* L. No-4 to 8., Revise the previous lesson as well.

*Wakeup Early, Do yoga for 15 min., or sit for meditation for fifteen minutes and then study for2-3-hour at a stretch.

*Solve the Questionnaire given below.

      ASSIGNMENT   CHAPTER: JUDICIARY

1) Why do we need an independent judiciary?
2) What is meant by rule of law?
3) How are the chief justice and other judges of the supreme court of India
appointed?
4) Describe the original and appellate jurisdiction of the Supreme Court of India.
5) What is meant by Judicial Review?
6) Discuss the Supreme Courts power of Judicial Review.
7) What is meant by Judicial Activism?
8) How has Public Interest Litigation helped the poor?
9) How can the judges of Supreme Court be removed?

PUBLIC ADM

REFERENCE WORK

-Make use of Reference Books and Internet make a detail study of "GLOBALISATION"

Under the Topics -

1.Meaning of Globalization

2 Circumstances leading to Globalization

3.India and the GLOBAL WORLD

4.Consequences of Globalization.

5.Globalisation and Public Administration.

-Make an indepth study of Working of -

Supreme court

High Court

-Complete your notes till lesson No 5.

-Work sincerely and prepare for UNIT TEST II.

PHE

1.Read chapters 1to4 at home.

2.practical kho kho ,badminton, kabaddi,handball.

3write brief note on sports personality of your choice of india .

4. Play at home for 30min.daily to stay fit.

E. V. S

A) PROJECT:-

1 .Prepare a project on visit to a wildlife sanctuary.

2. Prepare a project on visit to a water body.

B) Prepare a Herbarium

C) PRACTICALS:-
1. Study the density of different plant species.
2. Determine the temperature of air, soil and water.

D) Do all the questions of lesson-5 Energy Resources.