ADARSH VIDYA NIKETAN

SENIOR SECONDARY SCHOOL

HOLIDAYs' HOmewOrk fOr CLASS x (2019-20)

NAME: _____

ENGLISH

- Prepare flash cards using A4 size sheet on the following topic:
  - (i) Poetic Devices (Even Roll Numbers)
    - Alliteration
    - Metaphor
    - Similies
    - Assonance
    - Onomatopoeia
    - Hyperbole
    - Anaphora
    - Allusion
    - Irony
  - (ii) Different types of poetry (Odd Roll Numbers)
    - Epic
    - Sonnet
    - Haiku
    - Narrative
    - Free Verse
    - Acrostic
    - Ballad
- Watch the movie 'JUNGLEE' and write a critical analysis using the quotes of some famous critics.
- Do the following in BBC Compacta-
  - Module 1 (Pg. 4, 5, 6, 7)
  - Module 2 (Pg. 72, 73, 74, 75)
  - Module 3 (Pg. 154, 155, 156, 157)
  - Module 4 (Pg. 192, 193, 194, 195)
- Prepare a portfolio on one of the following poet in scrap book-
  - William Shakespeare (R. No. 1 to 5)
  - William Words worth (R. No. 6 to 10)
  - Robert Frost (R.No. 11 to 15)
  - S.T. Coleridge (R.No. 16 to 20)
  - Robert Browning (R.No. 21-25)
  - Walt Whitman (R.No. 26 onwards)

- ❖ Use relevant pictures and your creativity to make your homework presentable and impressive.
- ❖ Submit your holidays homework in a handmade beautiful folder timely.

HINDI

1- fxjfxV dh rjg jx cnyus oky fdlh ekdk&ijLr dkYifud ik= ij vk/kkfjr ,d dgkuh fy[kkA (A4 Sheet)

2- lk'k&if{k;k] tho&tarvk dh itkfr;k d foyIr gku d D;k dkj.k g\ bl leL;k dk lek/kku dl fd;k tk ldrk g\ (A4 Sheet)

3- vki ljnkl d tUe&LFky] flgh xko x, FkA ogk vkiu D;k&D;k n[kk o vuHko fd;kA viu ml ;k=k&orkr dk o.ku dhft,A (A4 Sheet)

fo'k"k ukV&

- ❖ FA-1 dk lEi.k ikB;Øe ;kn djd vkuk gA
- ❖ fn, x, Assignment dk gy A4 Sheet ij djd ykuk gA

MATHS

1. Revise all the chapters done in the class.
   - Ch-1 Real Numbers
   - Ch-2 Polynomials
   - Ch-6 Triangles
   - Ch-8 Introduction to Trigonometry
   - Ch-9 Some application of trigonometry
2. Do extra question from R.D. Sharma for practice.
3. Do any activity or project based on 10^{th} class.
4. Solve the given assignments in separate note book.

Assignment

1) Find the LCM and HCF of following pairs of integers and verify that LCM x HCF=Product of two numbers
   - (i) 510 and 92
   - (ii) 336 and 54
   - (iii) 180 and 192

2) The length, breadth and height of a hall as 9m, 7.5m and 5m 25cm respectively. Determine the largest rod which can measure the three dimensions of the hall exactly.

3) Find the quadratic polynomial whose zeros are $\frac{2}{3}$ and -6. Verify the relationship between the coefficients and zeros of the polynomial.

4) On dividing $x^3 - 3x^2 + x + 2$ by a polynomial $g(x)$, the quotient and remainder were $x - 2$ and $-2x + 4$ respectively. Find $g(x)$.

5) Given that $x - \sqrt{5}$ is a factor of the cubic polynomial $x^3 - 3\sqrt{5}\,x^2 + 13x - 3\sqrt{5}$, find all the zeroes of the polynomial.

6) What must be added to the polynomial $4x^4 + 12x^3 - 43x^2 - 45x + 104$ so that the resulting polynomial is divisible by $2x^2 + x - 6$?

7) If $\cot\theta = \frac{3}{4}$, show that $\sqrt{\frac{\sec\theta + \operatorname{cosec}\,\theta}{\sec\theta + \operatorname{cosec}\theta}} = \frac{1}{\sqrt{7}}$

8) Verify each of the following:

(i) $\cos\,60^o\,\cos 30^o + \sin 60^o\,\sin 30^o = \cos 30^o$

(ii) $2\cos^2 30^o - 1 = \cos 60^o$

9) Prove each of the following:

(i) $(\sec\theta - \tan\theta)^2 = \frac{1 - \sin\theta}{1 + \sin\theta}$

(ii) $\frac{1 - \cos\theta}{1 + \cos\theta} = (\cot\,\theta - \operatorname{cosec}\theta)^2$

(iii) $\frac{1}{\sec\theta + 1} + \frac{1}{\sec\theta - 1} = 2\,\operatorname{cosec}\theta\,\cot\,\theta$

(iv) $\frac{\operatorname{cosec}\,\theta}{\operatorname{cosec} - 1} + \frac{\operatorname{cosec}\theta}{\operatorname{cosec} + 1} = 2\sec^2\theta$

10) The horizontal distance between two poles is 15m. The angle of depression of the top of the first pole as seen from the top of the second pole is 30°. If the height of the second pole is 24m, find the height of the first pole. $\left[\sqrt{3} = 1.732\right]$

11) A statue, 1.6m tall, stands on the top of a pedestal from a point on the ground, the angle of elevation of the top of the pedestal is 45° and from the same point the angle of elevation of the top of statue is 60°. Find the height of the pedestal. $\left[\sqrt{3} = 1.732\right]$

12) From a balloon vertically above a straight road, the angles of depression of two cars at an instant are found to be 45° and 60°. If the cars are 100m a part, find the height of the balloon. $\left[\sqrt{3} = 1.732\right]$

SOCIAL SCIENCE

1) Make the project file roll No. wise

- Roll No. 1 to 5

  Prepare a project on Importance of water & causes of scarcity?
- Roll No. 6 to 10

  Prepare a project on fane cyclone?
- Roll No. 11 to 15

  Prepare a project on Surgical Strike at Balakot.
- Roll No. 16 to 20

  Prepare a project on Consumer Rights.
- Roll No. 21 to Last

  Prepare a project on Disaster Management.

2) Short note on any two:

- Election Process
- Development
- Democracy
- Himalayas

CHEMISTRY

1) Write the balanced chemical equations for:

(a) Zinc metal reacts with aqueous hydrochloric acid to produce zinc chloride and hydrogen gas.

(b) Solid mercury oxide is heated, Liquid mercury and oxygen gas are produced.

(c) Liquid hydrogen peroxide decomposes to form water and oxygen gas.

(d) Phosphorous burns in oxygen to form phosphorous pentoxide.

(e) Sodium hydroxide reacts with sulphuric acid to form sodium sulphate and water.

(f) Aluminium sulphate reacts with sodium hydroxide to form Aluminium hydroxide and sodium sulphate.

(g) Glucose is formed when CO_2 & H_2O mixed together.

2) Balance the following chemical equation:

(a) $Al\ (OH)_3 \xrightarrow{heat} Al_2O_3 + H_2O$

(b) $BaCl_2 + Al_2(SO_4)_3 \rightarrow AlCl_3 + BaSO_4$

(c) $Pb(NO_3)_2 + Fe_2(SO_4)_3 \rightarrow Fe(NO_3)_3 + PbSO_4$

(d) $NH_3 + O_2 \rightarrow N_2 + H_2O$

(e) $SO_2 + H_2S \rightarrow H_2O + S$

(f) Potassium bromide + Barium chloride $\rightarrow$ Potassium Chloride + Barium bromide

3) A brown coloured element X on heating in air becomes black. Identify X and write required reaction.

4) Find out the substances which undergo oxidation & reduction & also which act as oxidizing agent and reducing agent in the following:

(a) $3MnO_2 + 4Al \rightarrow 3Mn + 2Al_2O_3$

(b) $Fe_2O_3 + 3CO \rightarrow 2Fe + 3CO_2$

(c) $Cu + 2AgNO_3 \rightarrow Cu(NO_3)_2 + 2Ag$

5) Name one naturally occurring containing following acids:

a) Citric acid

b) Acetic acid

c) Tartaric acid

d) Amino acid

6) Project/Model

XA- Physics

XB- Chemistry

XC- Biology

Note: Holidays homework is to be done in class work copy of respective subjects.

BIOLOGY

1) How Human digestive system work. Explain with diagram.
2) Where photosynthesis occur? Describe the structure of chloroplast with diagram.
3) Explain autotrophic and Heterotrophic mode of Nutrition.
4) Difference between saprophytic nutrition and parasitic nutrition.
5) Define carnivores and omnivores? How omnivores differ from herbivores?
6) How respiration occur in plants?
7) How human being respire? Describe the process of respiration in steps.
8) Describe the mechanism of transport of water and minerals in plants?
9) How human circulatory system work? Draw well labelled diagram.
10) What is blood pressure and how to measure blood pressure?
11) Describe the structure of phloem and how food is transported in plants?
12) Write down the main component of blood and describe how RBC carry oxygen from the lungs to all the cells of the body?

13) Which blood cells known as a soldiers of body and why Explain?

14) Write down the function of blood?

15) What is meant by heart rate? What is the usual heart beat rate at rest?

PHYSICS

1) Name the unit of
   (a) Electrical resistance
   (b) Resistivity
2) Define one Ohm.
3) Define resistivity.
4) What is electrical power? Write its SI unit.
5) You take two resistors of resistances 2R and 3R and convert them in parallel in an electric circuit. Calculate the ratio of the electrical power consumed by 2R and 3R?
6) Define resistance. Give the relation between resistance & resistivity. Explain the dependence of resistance on temperature.
7) Calculate the resistance of 2km long copper wire of radius 2mm. (Resistivity of copper=1.72 x 10^{-8}). $\Omega - m$ $(ohm - m)$
8) A 250 watt electric bulb is lighted for 5 hours daily and four 6 watt bulbs are lighted for 4.5 hours daily. Calculate the energy consumed (in kwh) in the month of February.
9) A torch bulb is rated at 3V and 600m A. Calculate its:
   (a) Power
   (b) Resistance
   (c) Energy

INFORMATION TECHNOLOGY

- Do your Homework in your Computer Practical File, it should be colourful and decorative with pictures?
  1. Explain Network components
     - Switch
     - Hub
     - Repeater
     - Router
     - Bridge

===end===