SURAJ SCHOOL

HOLIDAY HOMEWORK

SURAJ EDUCATION

CLASS-11th Medical

ENGLISH

1.You have a space of 18 x 18 sq. ft. in a Commercial Market. Draft an advertisement to be published in 'To Let' columns of the national daily stating all your requirements and expected rent

2.Draft a poster on the theme of road safety.

3.Rearrange the following words or phrases to make meaningful sentences:

(a)Exploiting/ man/ been/ the/ years/ has/ earth/ for.

(b) Was/ Taplow/ Frank/ Crocker/ encouraging/ about/ to speak/ against

Started/ poet/ missing/ her/ after/ photograph/ her/ mother/ seeing.

(C) Sachin Tendulker/ appointed/ as/ brand/ has/ Rio/ Ambassador/ been/ of/ Olympics.

(D) Students/ the/ article/ write/ letter/ must/ suggestions/ a few/ end/ the/ in/of/to/ editor/ and/the

Mystery/ Simon/ the/ Sir/ of/ a /death/ was.

(E) Gap/ father/ generation/ son/ though/ and/ blood/ have/ separates/ they/ relation.

(F) Changed/ educated/ his/ Ratna/ Ranga/ seeing/ mind/ after.

(G) System/ facts/ Albert/ on/ victim/ focus/ was/ education/ a/ of/ wrong/ where/ was/ only/ memorizing/ the.

4.Dr Sadao (a)…… in a beautiful (b)…….. house on the Japanese seacoast. Sadao was the only son of an (c)…….. and caring father. Sadao was sent (d)…….. the best of education (e) ……..medicine and surgery to the U.S. He (f)…….. to Japan at the age of thirty as an excellent surgeon and scientist.

(a) (i) lives	(ii) lived	(iii) has been living	(iv) Rad lived
(b) (i) insolvent	(ii) clumsy	(iii) slum	(iv) picturesque
(c) (i) affluent	(ii) effluent	(iii) indolent	(iv) indigent
d) (i) on	(ii) with	(iii) for	(iv) to
(e) (i) in	(ii) on	(iii) for	(iv) at
(f) (i) returns	(ii) returned	(iii) has returned	(iv) returning

Revise and learn all the syllabus of April and May month.

(CHEMISTRY)

Holiday Homework

* The number of electron proton and neutron in species are equal to 18,16 and 16 respectively assign the proper symbol to the species

*Calculate the percentage of higher isotope of neon which has atomic mass 20.2 and the isotope have the mass numbers 20 and 22.

*Calculate the mass of iron which will be converted into its oxide (Fe3O4) by the action of 18g of steam on it.

*Inorganic liquid having carbon hydrogen nitrogen and oxygen was found to contain carbon= 41.37%, Hydrogen= 5.75%, Nitrogen = 16.9% and the rest oxygen. Calculate the molecular formula of the liquid if its vapour density is 43.3.

*Define Normality and molarity?

*In the combustion of methane what is the limiting reactant and why?

*What is the main difference between electromagnetic wave theory and Plank Quantum.

Motion in One Dimension

1) A car accelerates from 12.0 m/s to 19.0 m/s in 3 seconds. What distance did it travel in this time?

2) A car is traveling with a speed of 22 m/s. the brakes can produce a maximum deceleration of 8.0 m/s^2. What is the minimum stopping distance for the car?

   Notice that the acceleration is negative since it is a deceleration. Also notice that the final velocity is zero.

3) A particle covers a distance 20 m in 3^{rd} and 40 m in 5^{th} second. Calculate the distance covered by the particle in 2 seconds after 5^{th} seconds.

4) A rock is dropped into a 100 m deep well. How long until the rock hits the bottom? **Note:** when you drop something the initial velocity is zero. When we talk about speeds in problems, it is always right after the object has left your hand and the instant before it hits the ground. The final velocity of a falling object is never zero.

5) A baseball is thrown upward with an initial speed of 35.0 m/s. What is its speed at t = 2.00 s ?

6) Suppose you are visiting a planet in distant part of the galaxy. To determine the acceleration due to gravity on the planet, you drop a rock from a height of 55 m. the rock strikes the ground 1.9 later. How many times greater is the acceleration due to gravity on this planet than it is on earth?

7) You are on a 5.0 m high roof and throw a ball upwards at 10.0 m/s. it lands on the ground below you. How long was it in the air?

8) Two balls are thrown simultaneously, A vertically upwards with a speed of 20 m/s from the ground and B vertically downwards from a height of 40 m/s with the same speed and along the same line of action. At what points do the balls collide? (g = 9.8 m/s^2)

Motion in Two Dimensions

1) If two forces equal to 7N and 9N, inclined at an angle of 60 act simultaneously upon a particle, determine the magnitude and the direction of the resultant (13.9, 0.6778).

2) The sum of the magnitude of two forces acting at a point is 18 and magnitude of their resultant is at 90 with the force of smaller magnitude, what are the magnitudes of forces? (5, 13)

3) One of the rectangular components of a velocity of 80 km/hr is 40 km/hr. find the other component. (403)

4) "A body is in rest as well as in motion at the same time." This observation is possible (a) One dimension (b) 2-dimension (c) relative motion (d) 3-dimension.

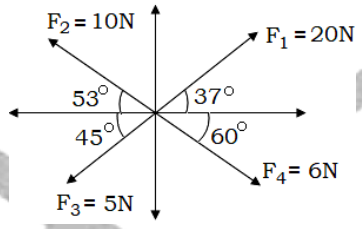
5) A body is moving with zero acceleration, the velocity – time graph will be

SUBJECT: VECTORS

Q1. The resultant vector of $\vec{P}$ and $\vec{Q}$ is $\vec{R}$ on resulting the dilute 2Q the $\vec{S}$ resultant vector recoutres. Prove: $R^2 + S^2 = 2\left(P^2 + Q^2\right)$.

Q2. At what angle do the forces (P + Q) and (P – Q) act so the resultant is $\sqrt{3^{\ 2}\ \ \ ^2}$.

Q3. A particle is acted upon by forces. Calculate resultant force.



Q4. Two forces equal to P and 2P act on a particle. If first be doubled and other be increased by 20N the direction of resultant is unaltered. Find the value of P.

Q5. The sum of magnitude of 2 forces acting at a point is 18N and magnitude of their resultant is 12N. If resultant makes on angle of 90° with the smaller force. What are the magnitudes of forces?

Q6. Find a unit vector parallel to resultant of vectors. $A = i + 4j - 2k,\ B = 3i - 5j + \vec{k}$

Q7. If $\vec{A} = 3i + 4j$ and $\vec{B} = 7i + 24j$. Find a vector having the same magnitude as $\vec{B}$ and parallel to $\vec{A}$.

Q8. A bird masses with velocity 20 ms^{-1} in a direction making an angle of 60° with the eastern line and 60° with vertical upward. Represent the velocity vector in rectangular form.

Q9. Find the value of λ in the unit vector $0.4\hat{i}\ \ 0.8\hat{j}\ \ \lambda\hat{k}$

Q10. Calculate the values of-

(i) $\hat{j}.\left(2\hat{i} - 3\hat{j} + \hat{k}\right)$ (ii) $\left(2\hat{i} - \hat{j}\right).\left(3\hat{j} + \hat{k}\right)$

Q11. Under the force of $10\hat{i} - 3\hat{j} + 6\hat{k}$ Newton a body of mass 5 kg is displaced from the position $6\hat{i} + 5\hat{j} - 3\hat{k}$ to the position $10\hat{i} - 2\hat{j} + 7\hat{k}$. Calculates the work done.

Q12. If the resultant of the vectors $3\hat{i} + 4\hat{j} + 5\hat{k}$ and $5\hat{i} + 3\hat{j} + 4\hat{k}$ makes an angle with *x*-axis, then find cos θ.

Q13. Find a unit vector perpendicular to the vectors $\vec{A} = 4i - \hat{j} + 3\hat{k}$ and $\vec{B} = 2\hat{i} + \hat{j} - 2\hat{k}$

Q14. Find with the help of vectors the area of the triangle with vertices A (3, -1, 2), B(1, -1, -3) and C(4, -3, 1).

Q15. Derive for angular and horizontal projectile.

(i) Maximum height (ii) Horizontal range

(iii) Angle has maximum range. (iv) Time of light.

(v) 2 ranges for θ and 90 - θ and (45 + α) . (45 - α).

(vi) Equation of trajectory.

Biology

A. Draw the diagram of the following

1. Plant cell
2. Animal cell
3. Nucleus
4. Mitochondria
5. Chloroplast
6. Centriole
7. Golgi apparatus
8. Lysosome
9. Cilia and flagila
10. E.R
11. Chromosome - Metacentric, submetacentric, acrocentric and telocentric

B. Draw chemical structure of

1. Alanine, glycine and serene
2. Ribose, deoxyribose, cellulose and glucose
3. Adenine, thymine, cytosine, guanine and uracil
4. Glycerol and fatty acid
5. Adenosine, adenylic acid