NORTH-EX PUBLIC SCHOOL, JAIN NAGAR
SUMMER HOLIDAYS HOMEWORK, 2019-20
CLASS-XI-A

ENGLISH

1. Read the newspaper daily and find out samples of the following:
   a. 5 Report
   b. 5 Posters
   c. 8 Advertisements [eg-situation vacant, lost and found, missing and obituary]
   Paste them neatly in the notebook.
2. Design a posteron the topic –'How CNG can be the best alternative to diesel and petrol.' [50 words]
3. Describe your favorite holiday destinationand write what makes it a 'happening tourist destination'.[120-150 words]
4. Learn and revise all the syllabus of PERIODIC TEST-I.

MATHS

1. Let A = {1, 2, 3, 5} and B = {4, 6, 9}. Define a relation R from A to B by R = {(x, y) : x -y is odd natural number, X E A, y E B}. Write R in roster form.
2. Find the domain and range of the function f (x) = 1/√5 – x
3. Prove that : cos 2A cos A/2 – cos 3A cos 9A/2= sin 5A sin 5A/2
4. In a survey of 600 students in a school, 150 students were found to be taking tea and 225 taking coffee, 100 were taking both tea and coffee. Find how many students were taking neither tea nor coffee ?
5. If A = 11, 2, 3, 41, B = {1, 3, 5, 7}, find the relation "is less than" from A to B.
6. Describe the following set in roster form : $\{x \in N : x^2 < 70\}$.
7. Given A = {1, 3, 5} and B = {2, 41. List the elements of relation R, if $R = \{(x,y) \in A \times B : x > y\}$.
8. How many elements has P(A), if A = Φ ?
9. Find the value of tan (13π/12)

PHYSICS

1. The moon is observed from two diametrically opposite points A and B on the earth. The angle θ subtended at the moon by the two directions of observation is $1^0 54''$. Given the diameter of the earth to be 1.27×10^7 m, compute the distance of the moon from the earth.
2. What are the dimensional formulae of the following physical quantities (i) work, (ii) pressure, (iii) power, (iv) density and (v) angle?
3. Consider a simple pendulum. The period of oscillation of the simple pendulum depends on its length 'l' and acceleration due to gravity 'g'. Derive the expression for its period of oscillation by the method of dimensions.
4. If the errors involved in the measurements of a side and mass of a cube are 3% and 4% respectively. What is maximum permissible error in the density of the material?
5. The length of a rod as measured in an experiment was found to be 2.48 m, 2.46 m, 2.49 m, 2.50 m and 2.48 m. Find the average length, the absolute error in each observation and the percentage error.
6. Prepare an investigatory project on the topic of your interest.

CHEMISTRY

1. Make one chart related to Your XI Chemistry Syllabus.
2. Complete your Chemistry note book.(Chapter-1 and Chapter-2)
3. Complete the synopsis of Working Project.
4. Read and make Notes for chapter-2 and Chapter-3
5. Write complete chapter of Environmental Chemistry in Chemistry Note book.

BIOLOGY

1. Describe the common mode of reproduction in Angiosperms.
2. Explain the life cycle in green algae?
3. The genomic content of the nucleus is constant for a given species where as the extra chromosomal DNA is found to be variable among the members of a population. Explain.
4. Briefly give the contributions of the following scientists in formulating the cell theory
   (a) Robert Virchow (b) Schleiden and Schwann
5. Biological classification is a dynamic and ever evolving phenomenon which keeps changing with our understanding of life forms. Justify the statement taking any two examples.
6. Prepare an investigatory project on the topic of your interest.

COMPUTER SCIENCE

1. Prepare a project report on : Operating System. Submit a printed copy of it.
2. Make a presentation on the topic : Basic Computer Organization.
3. Revise the syllabus covered for the upcoming periodic test.

PHYSICAL EDUCATION

1. What is the role of International Oympic Committee and role of Indian Olympic Association?
2. Explain Dronacharya Award and Arjuna Award.
3. What do you mean by physical education? Explain with help of two quotations.
4. Write about Changing Trends of Physical education in India.
5. Write in detail about the physical education courses available in India.