

***SUMMER***

***HOLIDAY***

***HOMework***

***2019***

***CLASS - X99 Sci***

# ENGLISH

## **I). Make projects on the following**

- 1). The Indian Sub Continent
- 2). Study of Gender Stereotypes in advertisements.

**II). G.D Goenka recently organised a “NO TOBACCO” workshop write a report on the same to be published in the news paper in 150 to 200 words.**

**III). Brain Drain is not a bane for a country like India. Write a debate in 150 to 200 words either for or against the motion.**

**IV). You are Anuj a social activist. Design a poster to observe ‘WILD LIFE PROTECTION WEEK’ in your city in 50 words.**

# BIOLOGY

Biology Students are required to submit a project file on one of the topics mentioned below.

Investigatory projects:-

- 1.Recombinant DNA technology and its applications
- 2.Cloning-boon or curse to humans
- 3.Biotechnology –its processes and applications
- 4.Microbes in human welfare
- 5.Various methods of contraception and assisted reproductive technology
- 6.Various Mendelian and chromosomal disorders
- 7.Site of fertilization in human female and the events leading to fertilization, post zygotic events till parturition and lactation.
- 8.Air pollution and its effects on environment (do include green house effect and global warming)

# Math

**Make an illustrative project file for the following:**

**To minimize the cost of the food, meeting the dietary requirements of the staple food of the adolescent students of your school.**

## **Task to be done**

- (i) Make a survey of at least 50 students to find which staple food they consume on daily basis.
- (ii) Select two food items constituting one cereal and one pulse.
- (iii) Find from dietician the minimum requirement of protein and carbohydrate for an adolescent and also find the content of protein and carbohydrate in 1 kg. Of selected cereal and pulse respectively.
- (iv) Find the minimum cost of the selected cereal and pulse from market.
- (v) Formulate the corresponding Linear Programming problem.
- (vi) Solve the problem graphically.

Interpret the result.

# PHYSICAL EDUCATION

(In Physical Education Practical file)

- Write benefits of Asanas.
- Measure resting heart rate and respiratory rate of ten members of the family and neighborhood for three weeks and show graphical representation of the data.
- Draw a neat and labeled diagram of Volleyball court. Write history, rules and regulation, terminologies and important tournaments of Volleyball

# PHYSICS

**Chose any one of the following:-**

1. To study various factors on which the internal resistance/EMF of a cell depends.
2. To study the variations in current flowing in a circuit containing an LDR because of a variation in (a) the power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the lamps at a fixed distance). (b) the distance of a incandescent lamp (of fixed power) used to 'illuminate' the LDR.
3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equi convex lens (made from a glass of known refractive index) and an adjustable object needle.
4. To design an appropriate logic gate combination for a given truth table.
5. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer.
6. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids.
7. To estimate the charge induced on each one of the two identical styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law.
8. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor/(bulb) in a circuit fed up by an A.C. source of adjustable frequency.
9. To study the earth's magnetic field using a tangent galvanometer.

# COMPUTER

Make the module of the project as discussed in the class.