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SANT NIRANKARI PUBLIC SCHOOL
NIRANKARI COLONY
HOLIDAY HOME WORK (2021-2022)
Class – XII (MATHEMATICS)

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Mathematics at senior secondary level is little more abstract as compared to the subject at secondary stage.

- **With these activity students will get an opportunity to understand the abstract ideas/concept through concrete objective and situation.**
- **The concept of relation and function can be easily understood by making working model and by making arrow diagram by using colour thread or wire.**
- **Three dimensional concept can be only be conceived by three dimensional model.**
- **So activity is very helpful to understand mathematic and it enhance the concept in practical life.**
- **Student will do this activity in activity REGISTEER.**
- **For all five activity PDF will be shared in whatsapp group**

ACTIVITY 1: To verify that the relation R in the set L of all lines in a plane defined by R = {(l, m): l is perpendicular m} is symmetric but neither reflexive nor transitive

ACTIVITY 2: To verify that the relation R in the set L of all lines in a plane defined by R = {(l, m): l is parallel to m} is equivalence relation

ACTIVITY 3: To demonstrate a function which is not one –one but is onto.

ACTIVITY 4: To demonstrate a function which is one –one but not onto.

ACTIVITY 5: To draw the graph of $\sin^{-1} x$ using the graph of $\sin x$ and demonstrate of mirror reflection about line y = x

1. Assignment of week 1 ,week2 week 3 and week 4 of April month should also be in separate note book.
2. **SANT NIRANKARI PUBLIC SCHOOL, NIRANKARI COLONY**

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3. **BIOLOGY, CLASS XII**
Holiday Homework

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4.
5. **ACTIVITY 1:**
6. **Complete your practical file**
7. **A. List of Experiments**
8. 1. Prepare a temporary mount to observe pollen germination.
9. 2. Collect and study soil from at least two different sites and study them for texture, moisture content, pH and water holding capacity. Correlate with the kinds of plants found in them.
10. 3. Collect water from two different water bodies around you and study them for pH, clarity and presence of any living organism.

11. 4. Study the presence of suspended particulate matter in air at two widely different sites.
12. 5. Study the plant population density by quadrat method.
13. 6. Study the plant population frequency by quadrat method.
14. 7. Prepare a temporary mount of onion root tip to study mitosis.
15. 8. Study the effect of different temperatures and three different pH on the activity of salivary amylase on starch.
16. 9. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.
17. **B. Careful observation of the following (Spotting):**
18. 1. Flowers adapted to pollination by different agencies (wind, insects, birds).
19. 2. Pollen germination on stigma through a permanent slide or scanning electron micrograph.
20. 3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).
21. 4. Meiosis in onion bud cell or grasshopper testis through permanent slides.
22. 5. T.S. of blastula through permanent slides (Mammalian).
23. 6. Mendelian inheritance using seeds of different colour/sizes of any plant.
24. 7. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, 10 ear lobes, widow's peak and colourblindness.
25. 8. Controlled pollination - emasculation, tagging and bagging.
26. 9. Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images. Comment on symptoms of diseases that they cause.
27. 10. Two plants and two animals (models/virtual images) found in xeric conditions. Comment upon their morphological adaptations.
28. 11. Two plants and two animals (models/virtual images) found in aquatic condition

29. ACTIVITY 2:

30. Collect information for preparing an investigatory/research or survey based project on any topic related to Biology. The format for the project is given below
31. A) Index
32. B) Acknowledgement
33. C) Introduction –reason for selecting this topic
34. D) Theory
35. E) Questionnaire/Case studies
36. F) Analysis and conclusion
37. G) Experience of conducting the survey(Optional)
38. F) Bibliography
39. **You can refer to the following topics**
40. a) Toxicity of Nicotine and its effect
41. b) Significance of Medicinal plants
42. c) Reasons for hair fall and hair transplantation
43. d) Atkins Diet/Ketogenic diet
44. e) Benefits of breathing exercises on our health
45. f) Stevia-Boon for Diabetes
46. g) Yoga and its benefits
47. h) Any Lifestyle disease/Hereditary disease/Communicable nor any other topic of your choice

SANT NIRANKARI PUBLIC SCHOOL
ECONOMICS   CLASS   XII

HOLIDAY H.W.- 2021-22

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- ❖ **Read and learn/revise all the chapter done in online classes.**
- ❖ **Complete all worksheets given.**
- ❖ **Collect information on the following :**
  - o **Make a list of all the schemes which has be formulate by the central and state government during COVID -19 pandemic to uplift the economic back on growth.**
  - o **Steps undertaken by RBI for bringing the economy back to the path of growth.**
  - o **Packages offered by govt./finance ministry**
  - **The information collected must be used to make a PPT.**
- ❖ **Read the chapter on Budget in Macroeconomics and relate to your family budget. Draw structure/components of your family budget using a flow chart with examples.**

SANT NIRANKARI PUBLIC SCHOOL
NIRANKARI COLONY DELHI-9
HOLIDAYSHOMEWORK CLASS 12ᵀᴴ
PHYSICAL EDUCATION SESSION (2021-2022)

Practical Syllabus of Physical Education along with marking scheme

Unit	Marks
Physical Fitness Test	6
Proficiency in Games and Sports (Skill of any one Game of choice from the given list*)	7
Yogic Practices	7
Record File **	5
Viva Voce (Health/ Games & Sports/ Yoga)	5

Basketball, Football, Kabaddi, Kho-Kho, Volleyball, Handball, Hockey, Cricket, Bocce & Unified Basketball [CWSN (Children with Special Needs – Divvying)]
- Practical 4: Any one game of your choice out of the list above. Labelled diagram of field & equipment (Rules, Terminologies & Skills).Paste photograph related to the game

**Record File shall include:
- Practical 1: Fitness tests administration for all items.
- Practical 2: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.do any three standing, laying, siting **(3+3+3=9) total 9 poses (with Photographs paste in your file**
- Practical 3: Procedure for administering Senior Citizen Fitness Test for 5 elderly family members.**(rikly and john test) motor fitness test (aaphar test)**
- Maintain your notebook also according **to Assignments**

ENGLISH HOLIDAY HOMEWORK (2021-22) – CLASS XII
1. Complete the given assignments in a separate assignment notebook.
2. Revise all the chapters/poem done in the online classes.
3. PROJECT WORK
   The story 'The Last Lesson ' by Alphonse Daudet highlights the horrors of war. Make a short project on it by including the given points :
   a. Highlights of Franco-Prussian war (1870-71) led by Bismarck
   b. Effect of the order from Berlin
   c. Examples in history where a conquered people had their language taken away from them or had a language imposed on them
   d. Elements required to inculcate patriotism in the people of a democratic country
   e. Importance of Mother Tongue
   f. Lingusitic Chauvinism- A Global Evil
   g. Need to curb war and spread peace and harmony
   NOTE : Project should be made on A-4 size sheets . It can be made attractive by pasting pictures in it.

HOLIDAY HOMEWORK
CLASS – XII
SUBJECT - CHEMISTRY
1. Complete class work up to chapter – 1.
2. Complete homework up to chapter – 1.
3. Learn all lesson studied so far.
4. Prepare an investigatory project for class 12 final practical.
   Follow this table, and prepare projects according to given roll number.

S.N.	Investigatory projects	Student's roll number
1	To study the presence of oxalate ions in guava fruit at different stages.	1, 6, 11, 16, 21, 26, 31, 36.
2	To study of quantity of casein present in different sample of milk.	2, 7, 12, 17,22, 27, 32, 37.
3	Preparation of soybean milk and its comparison with natural milk respect to curd formation, effect of temperature etc.	3, 8, 13, 18, 23, 28, 33, 38.
4	To study of digestion of starch by salivary amylase and effect of pH and temperature on it.	4, 9, 14, 19, 24, 29, 34.
5	To study the common food adulterants in fat, oil, butter, sugar, turmeric powder, chili powder and pepper.	5, 10, 15,20, 25, 30, 35.

5. Complete practical notebook.
6. Do numerical other than NCERT in homework copy of the chapter studied so far.

SANT NIRANKARI PUBLIC SCHOOL
NIRANKARI COLONY
HOLIDAY HOMEWORK (2021-22)
CLASS XII A (SCIENCE)

SUBJECT :- PHYSICS

- ➢ Prepare notes of Chapter 1. Practice all chapter completed so far.
- ➢ Practice numerical based on topic completed so far.
- ➢ Complete practical and activity notebook.
- ➢ Collect information for preparing an investigatory project on any
topic related to Physics. The format for the project is given below
A) Index
B) Acknowledgement
C) Introduction – reason for selecting this topic
D) Theory
E) Questionnaire/Case studies
F) Observation
G) Conclusion
 F) Bibliography
You can refer to the following topics
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.

Summer Holidays Homework
Computer Science

Do as directed
- Revise chapter 1- Review of Python Basics thoroughly.
- Do the worksheets in your notebook uploaded on the school website
- Make a mind map of chapter 2 - Functions.

- Download previous 5 years CBSE paper of CS, note down and solve questions based on chapter 1 and chapter 2.

Solve these questions

1. Using an example show how a function in Python can return multiple values.
2. How is built-in function pow() function different from function math.pow() ? Explain with an example.
3. Write a program that uses a user defined function that accepts name and gender (as M for Male, F for Female) and prefixes Mr/Ms on the basis of the gender.
4. Write a program to check the divisibility of a number by 7 that is passed as a parameter to the user defined function.
5. Write a program that implements a user defined function that accepts Principal Amount, Rate, Time, Number of Times the interest is compounded to calculate and displays compound interest. (Hint: CI = ((P*(1+R/N))NT)
6. Write a program that has a user defined function to accept 2 numbers as parameters, if number 1 is less than number 2 then numbers are swapped and returned, i.e., number 2 is returned in place of number1 and number 1 is reformed in place of number 2, otherwise the same order is returned.