STEPHENS

INTERNATIONAL PUBLIC SCHOOL

Holidays' Homework

Session – 2021-22

Class : 11th-D

Subject : English

(A) **(i)** As President of the Residents Welfare Association of Mayur Colony, Delhi, design a digital poster for promoting cleanliness in the surroundings of your colony.

(ii) You wish to open a showroom for 'Adidas' and are looking for a suitable place to purchase. Draft a digital advertisement for it to be published in 'The Tribune', New Delhi, under classified columns, giving all relevant details.

Task – 2

(B) **Fill in the blanks with suitable determiners and modals.**

1. …………………… you prepare a cup of tea for me, please?
2. She ………………. not help to laugh at the joker.
3. We ………………. execute your plan at once.
4. He said that he ……………. walk twenty kms at a stretch.
5. A lame person ……………. not walk.
6. The news …………. not be true.
7. With a little more effort we …………. win this time.
8. The examinations ……………. be postponed.
9. We ……………. have gone if they had invited us to dinner.
10. …….......... auditorium has been built in our school.
11. Honesty is ……………. best policy.
12. The Ganges is ………….. holy river.
13. Hari is ………… honourable man.
14. I saw ………….. one-eyed sailor.
15. …………… sun is bigger than ……….. earth.
16. …………. umbrella is …………. useful thing.
17. This is ………….. first time I have visited ………….. big city.
18. This car can be driven at ……….. speed of 180 kilometres ……….. hour.
19. Mount Everest is ……….. highest peak in ……….. Himalayas.
20. He is a good boy ……….. father is a doctor.

Task – 3

(C) **(i)** You have noticed many polythene bags full of litter lying along the road early in the morning. These litter bags cause pollution. You have already written to the concerned authorities, but no action has been taken so far. Write a letter to the Editor of a leading newspaper expressing your views on the nuisance created by plastic bags full of litter. Sign yourself as Parul/Prem Saxena, of B-22, Lajpat Nagar, New Delhi.

(ii) Hypocrisy exists in abundant measure in our society. People do not practise what they preach. They have double standards; are rude and dishonest but expect politeness and honesty from others. There are numerous examples of lack of sincerity in our daily experience. Write an article of 150-200 words showing how such behaviour causes disharmony at home, in the neighbourhood and at the work place. You are Harsha/Hrishit.

Task – 4

(D) Read any short story book or novel and summarize it in the form of Power Point Presentation (slides). The slides must be in the following order:
- General information about the book.
- Author's description.
- Character's description.
- Summary of the story.
- Moral/ what you get from the story.

Note – You can include different pictures related to the text in the slides. Presentation in form of paragraph will not be accepted. It must be in points. The slides must not be more than 15.

Subject : Mathematics

CHAPTER – SETS

Definition

Q1.   Write the solution set of the equation $x^2 + x - 2 = 0$ in roster form.

Q2.   Define equal sets. Explain with example.

Q3.   Write down all the subsets of the following sets:

      (i) ϕ

      (ii)   {a, b}

      (iii)   {1, 2, 3}

Q4.   Let. A = {a, b}, B= {a, b}. Is A subset of B. What is $A \cup B$?

Q5.   In a committee, 50 people speak French, 20 speak Spanish and 10 speak both Spanish and French. How many speak at least one of these two languages?

Q6.   Assume that P(A) = P(B). Show that A = B.

CHAPTER – RELATION AND FUNCTION

Q1.   The Cartesian product A Cross A has 9 elements among which are found (−1, 0) and (0, 1). Find the set A and the remaining elements of A Cross A.

Q2.   Write the relation R = {(x, x^3) : x is a prime number less than 10} in roster form. Write its domain and range.

Q3.   Draw the graph of the function f : R to R defined by $f(x) = x^3$, $x \in$ R. Write its domain and range.

Q4.   Let A = {9, 10, 11, 12, 13} and let f : A to N be defined by $f(n)$ = the highest prime factor of n. Find the range of f.

CHAPTER – COMPLEX NUMBERS

Q1.   If $4x + i(3x - y) = 3 + i(-6)$, where x and y are real numbers, then find the values of x and y.

Q2.   Find the multiplicative inverse of $4 - 3i$.

Q3.   Represent $-1 - i$ in the polar form.

Q4.   Solve: $x^2 + 3x + 5 = 0$

Q5.   If $x + iy = \dfrac{a + ib}{a - ib}$, prove that $x^2 + y^2 = 1$.

CHAPTER – TRIGONOMETRIC FUNCTIONS

Q1.   The minute hand of a watch is 1.5 cm long. How far does its tip move in 40 minutes? Use $\pi = 3.14$

Q2.   Find the values of other five trigonometric functions for $\tan x = \dfrac{-5}{12}$, x lies in second quadrant.

Q3.   Prove that $\cos 6x = 32\cos^6 x - 48\cos^4 x + 18\cos^2 x - 1$

Q4.   Find the general solution for $\sin x + \sin 3x + \sin 5x = 0$

Q5.   Prove that $\cos 2x \cos \dfrac{x}{2} - \cos 3x \cos \dfrac{9x}{2} = \sin 5x \sin \dfrac{5x}{2}$

Subject : Political Science

A.   Project Work.

Some suggested topics are:

■   The importance of elections in a democratic country especially in India.

■   Decentralization- About 73rd and 74th amendment and role of local self government institutions in empowering women.

■   Detailed Structure and Functioning of any one organ of the government i.e. Legislative, Judiciary or Executive.

■   Take up any one concept Equality or Liberty. Search a case study where violation of these rights has been seen. Study the case and prepare a report.

■   Choose Any other topic based on the syllabus.

General Instructions:

1.   It should be a handwritten project on a A4 size sheet.

2.   Project should be summed up in 12-15 pages.

3.   It should be well researched and pictorial.

4.   Title/ Cover page, acknowledgement, list of contents, Bibliography, headings and sub-headings are a must.

B.   Read and revise the chapters taught in the class.

C.   Read the newspaper daily especially the editorial page.

D.   Answer the following questions in a separate notebook.

1.   Public Accountability of civil servants in India- Is it a myth or a reality?

2.   Explain the electoral reforms that are urgently needed in India.

3.   "*Politics envelops us like the coils of snake and there is no way out but to wrestle with it*".
Who said these words? Do you agree with it? Give reasons to justify.

4.   Vigilant and active citizens are must for the success of democracy. Explain.

5.   Politics is more than what politicians do. Do you agree with the statement? Explain.

Subject : History

GENERAL QUESTIONS:

Q1.   What are the sources about Roman and Iranian empires?

Q2.   Which sea was called the heart of the Roman empire?

Q3.   When did the earliest form of humans evolve and where? Why are there opposing views about the time period of evolution of the earliest form of human, the ways of their obtaining food, certain changes in physical features? Explain.

Q4.   Outline the Roman administration, the structure of society, Gender, literacy, culture, and economic expansion under the Roman empire?

Q5.   Narrate the important characteristics of Mesopotamia civilization and explain how archaeologists could explain so many things about the cities, the culture, society, and family traits of that period.

Q6.   How independent were women in the Roman world? Compare the situation of the Roman family with the family in India today.

Note: Learn the chapters 1 and 2.
• Complete chapter 3rd and do all the questions of chapter 3rd.

FEW SUGGESTIVE TOPICS FOR PROJECT:

1. History of aborigines-America/ Australia.
2. Learning about global Sufism.
3. Relationship and Impact of past crusade.
4. Making and unmaking of Mesopotamia.
5. Scientific Revolution and the origins of morden science.

LIST OF MAP WORK

•   Show the east African rift valley
•   Show some site of hunting and fishing
•   Site of Mesopotamia civilization
•   Mesopotamia- Mountains, steppe, Desert, Irrigated zone of South
•   Show the continent of Africa and Europe

NOTE:

•   Each student has to choose any one topic from the above topic for the project
•   Project must be done in a project sheets or use separate file for project.
•   Relevant picture must be pasted in project work
•   Map work must be done in a map book .
•   Write the answer of general questions on separate notebook but chapter 3rd will be done on your main copy.

Subject : Economics

PROJECT WORK:
Make a project report on any of the following topics:
1.   **Effect of PPC due to various government policies.**
2.   **Invisible Hand (Adam Smith).**
3.   **Opportunity cost as an economic tool (taking real life situations).**
4.   **Solar energy, a Cost Effective Comparison with conventional sources.**
5.   **Bumper production- Boon or Bane for the farmer.**
6.   **Any other newspaper article and its evaluation on basis of economic policies.**

Subject : Physical and Health Education

A.   **Prepare the project file on any one of the following games:-**
Athletics, Badminton, Boxing, Chess, Judo, Shooting, Skating, Swimming, Taekwondo, Tennis, Aerobics, Gymnastics, Rope-Skipping, Yoga, Bocce and Unified Basketball
Project has to be written on the basis of following guidelines:-
1.   History of the game.
2.   Draw the diagram of court/field of related game Specifications of playfield and sports equipments.
3.   Latest general rules of the game.
4.   Fundamental skills of the game.
5.   Terminology
6.   Important tournaments of related game

B.   **Write down the current affairs related to sports of the year 2021.**

C.   **Calculate the BMI of your family member and also state the category in which they fall.**

D.   **Make a video of performing any 5 yoga asanas and explain its steps and benefits.**

Subject : Applied Art

PROJECT WORK
1.   Make a picture of Folk art on A3 size sheet (portfolio) using water colours or acrylic colours. (3 sheets)
2.   Make a poster on safety measures of COVID-19 on A3 size sheet (portfolio) using acrylic colours. (3 sheets)

Subject : Hindustani Music

PROJECT WORK

1. Paste pictures of various musical instruments on practical notebook and write in detail about the same.

   The following are the instruments which you can describe:

   Harmonium, Flute, Guitar, Ukulele, Violin, Mandolin, Banjo, Sitar, Tanpura, Santoor, Shehnai, Sarangi, Sarod, Dilruba, Pakhawaj, Swarmandal, Veena, Melodica, Piano, Tabla, Dholak, & Drums.

2. Description of prescribed Talas along with Tala Notation with Thah (Single) & Dugun (Double).

   (a) Teen Tala

   (b) Ek Tala

Subject : Computer Science

Research and read about the following:-

Computational Thinking and Programming – 1

1. Introduction to problem solving
2. Steps for problem solving (analysing the problem, developing an algorithm, coding, testing and debugging).
3. Emerging trends: Cloud computing, cloud services (SaaS, IaaS, PaaS),
4. Blockchains, Artificial Intelligence (AI), Machine Learning (ML), Internet of Things (IoT)
5. Familiarization with the basics of Python programming
6. Introduction to Python
7. features of Python

Society, Law and Ethics

1. Digital Footprints
2. Digital society and Netizen: net etiquettes, communication etiquettes, social media etiquettes
3. Data protection
4. Cyber-crime
5. Cyber safety
6. E-waste management

Have a
Happy Summer
Vacation