



Venkateshwar International School

Sector-18, Dwarka, New Delhi-78

Summer Vacations Holiday Homework (2019-2020)

Class – XI

HUMANITIES STREAM

Happy Holidays!

Dear Parents

Holidays are about experiences and people,
and tuning into what you feel like doing at that moment.
It's time to Relax, Reflect and Recharge!

Summer Vacation is a welcome break. A break from studies and explanations. It is about learning new things and engaging children in various scholastics and co-scholastic areas. Keeping this in mind, our teachers have designed and framed interesting project work / assignments to be completed during Summer Vacations to encourage in depth learning, clearing concepts and preparing ground for improved academic output. As parents, kindly motivate and lend support to your children and ensure that they complete the given work well-in-time and to the best of their ability. Your encouragement can actually make a huge difference to the ultimate learning outcome of their projects.

Unit Test-2 for Class XII and Unit Test-1 for Class XI will commence from 24 June, 2019. The date-sheet and syllabus for the same has already been given and is also available on the Shaurya Dashboard.

We at Sri VIS wish you a very Happy 'World Environment Day ', to be celebrated on June 05, 2019. Let's pledge to save the environment and plant more trees!

WISH YOU VERY ENJOYABLE HOLIDAYS!

ENGLISH

1. Research on the Egyptian civilizations –with particular reference to Tut's Mummy and its discovery. Stick pictures. Read : Discovering Tut: The Saga Continues from 'Hornbill'
2. Design a poster as an appeal for conserving water as most parts of India are facing serious problems and have been hit by drought.
3. Cut out 5 clippings of Classified Ads under the given heads and paste them in your registers :
 - For sale
 - To-let
 - Situation vacant
 - For matrimonial
 - Pets / kennels
4. Watch at least 3 English films from the list given below and write a review on them in 150-200 words each:
 - a) Harry Potter and the Prisoner of Azkaban
 - b) The Mummy
 - c) Schindler's List
 - d) A beautiful Mind
 - e) Day After Tomorrow
 - f) The Groundhog Day
 - g) Forrest Gump
 - h) Castaway
 - i) Inception
 - j) Gravity
 - k) Hugo
 - l) Top Gun
 - m) Life of Pi
5. Revise the Syllabus of UT-1. Read all the Literature Texts included in it thoroughly.

NOTE : The Holiday Homework is to be done in English register.

MATHEMATICS

1. Complete the attached worksheets of Ch-1 & Ch-2.
2. Ch-2 Relations & Functions from NCERT Exemplar.
3. Do the following worksheets

CHAPTER - 1 (SETS)

1. Describe the following sets in set-builder form:

$$\left\{1, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}\right\} \text{ and } \left\{\frac{1}{2}, \frac{2}{5}, \frac{3}{10}, \frac{3}{17}, \frac{5}{26}, \frac{6}{37}, \frac{7}{50}\right\}.$$

2. Describe the following sets in Roster form: $\{x \in N : x^2 < 25\}$ and $\{x \in R \mid |x| > x\}$.
3. Using the properties of sets, prove De–Morgan's law i.e. $(A \cup B)' = A' \cap B'$ and $(A \cap B)' = A' \cup B'$
4. For any two sets A and B prove that $P(A) \cup P(B) \subset P(A \cup B)$. But $P(A \cup B)$ is not necessary be a subset of $P(A) \cup P(B)$.
5. Using the properties of sets, show that for any two sets A and B, $(A \cup B) \cap (A \cup B)' = A$
6. Write $[-3, 7)$ in set-builder form.

7. Write $\{x : -5 < x \leq 9\}$ as interval.
8. What is the total number of proper subsets of a set consisting of n elements?
9. List all the subsets of the set $\{1, 2, \{3, 4\}, 5\}$.
10. Using the properties of sets, prove the following
 - (i) $(A \cup B) - (A \cap B) = (A - B) \cup (B - A)$
 - (ii) $(A \cap B) \cup (A - B) = A$
11. Are sets $A = \{1, 2, 3, 4\}$, $B = \{x : x \in \mathbb{N} \text{ and } 5 \leq x \leq 7\}$ disjoint? Why?
12. If X and Y are two sets such that $n(X) = 19$, $n(Y) = 37$ and $n(X \cup Y) = 12$, find $n(X \cap Y)$.
13. Let A and B be two finite sets such that $n(A - B) = 30$, $n(A \cup B) = 180$, $n(A \cap B) = 60$, find $n(B)$.
14. In a group of 50 people, 30 like to play cricket, 25 like to play football and 32 like to play hockey. Assume that each person in the group likes to play at least one of the three games. If 15 people like to play both cricket and football, 11 like to play football and hockey and 18 like to play cricket and hockey. Find:
 - (i) How many like to play all three games?
 - (ii) How many like to play only football?
 - (iii) How many like to play only hockey?
 - (iv) How many like to play exactly one game?
15. A survey shows that 84% of the Indians like grapes, whereas 45% like pineapple. What percentage of Indians like both grapes and pineapple?
16. In a survey of 450 people, it was found that 10 play cricket, 160 play tennis and 70 play both cricket as well as tennis. How many play neither cricket nor tennis?
17. There are 200 individuals with a skin disorder, 120 have been exposed to chemical C_1 , 50 to chemical C_2 and 30 to both the chemical C_1 and C_2 . Find the number of individuals exposed to (i) chemical C_1 or chemical C_2 (ii) chemical C_1 but not chemical C_2 (iii) chemical C_2 but not chemical C_1 .

CHAPTER - 2 (RELATIONS AND FUNCTIONS)

1. Find x and y if $(x^3 - x, y^2 - 5y + 6) = (0, 0)$
2. Determine the domain and range of the relation defined as:
 $R = \{(a, b) : a, b \in \mathbb{N}, a < 5, b = 3a + 1\}$
3. Find the domain and range of the following functions:
 - (i) $f(x) = |x + 1|$
 - (ii) $f(x) = \frac{|x-3|}{x-3}, x \in \mathbb{R}$
4. If $P = \{1, 3\}$, $Q = \{2, 3, 5\}$, find the number of relations from A to B
5. If $f(x) = \frac{1}{1-x}$, show that $f[f\{f(x)\}] = x$
6. A function $f : \mathbb{R} \rightarrow \mathbb{R}$ is defined as

$$\begin{cases} x^2 + 1 & ; x \leq -2 \\ 2x + 1 & ; -2 < x \leq 3 \\ 2x^2 - 3 & ; 3 < x < 8 \end{cases}$$

Find (i) $f(0)$ (ii) $f(3)$ (iii) $f(5)$ (iv) $f(-1)$ (v) $f(-3)$
7. Let f be the subset of $\mathbb{Z} \times \mathbb{Z}$ defined by $f = \{(ab, a+b) : a, b \in \mathbb{Z}\}$. Is f a function from \mathbb{Z} to \mathbb{Z} ? Justify your answer.

8. Let $A = \{1,2,3\}$, $B = \{2,3,4\}$, $C = \{4,5\}$ and $D = \{5,6,7,8\}$

Verify that :

(a) $A \times (B \cap C) = (A \times B) \cap (A \times C)$

(b) $A \times C$ is a subset of $B \times D$.

9. Let f and g be two real valued functions, defined by, $f(x) = 2x + 5$, $g(x) = x^2 + x$, find (i) $(f + g)(-2)$ (ii) $(f - g)(1)$ (iii) $(fg)(-1)$ (iv) $gf(2)$

10. Find the domain and range of the function, $f(x) = \frac{x^2 - x + 1}{x^2 + x + 1}$

11. Find the domain and range of the function, $f(x) = \frac{1}{1 - x^2}$

12. Find the domain and range of $f(x) = |x - 3|$.

13. Let $A = \{1,2,3,4\}$, $B = \{1,4,9,16,25\}$ and R be a relation defined from A to B as,

$R = \{(x, y) : x \in A, y \in B \text{ and } y = x^2\}$

(a) Depict this relation using arrow diagram.

(b) Find domain of R .

(c) Find range of R .

(d) Write co-domain of R .

14. Let $R = \{(x, y) : x, y \in \mathbb{N} \text{ and } y = 2x\}$ be a relation on \mathbb{N} . Find :

(i) Domain

(ii) Co domain

(iii) Range

Is this relation a function from \mathbb{N} to \mathbb{N} ?

15. Find the domain and range of, $f(x) = |2x - 3| - 3$

16. Draw the graph of the Greatest Integer function.

17. Draw the graph of the Constant function $f(x)=5$. Find its domain and range.

18. Draw the graph of the signum function.

19. If $y = \frac{ax - b}{bx - a}$, show that $f(y) = x$.

SOCIOLOGY

1. Complete Research Project work (Data Collection as discussed in the class).
2. Extra question ch-2 (Term, Concepts and their Use as given in the class.)

PSYCHOLOGY

1. **Complete Project Work** – Survey research or observational research.
2. Do worksheet 1 and 2.
3. Complete Question Answer of chapter 2- Methods of enquiry from NCERT.

ECONOMICS

1. Complete the worksheets of Unit – 2 of Micro Economics.
2. Complete the Project file on Economics issues. (As per instructions given in the class)

LEGAL STUDIES

Do the following questions ---

UNIT 1

Chapter 1: The Concept of the State and Nation

1. Define State. How Salmond, Harold J. Laski and Aristotle defined state.
2. Who gave this phrase – ‘Man is a social animal; Man is a political animal?’

3. Explain the theories about the origin of the state. Mention any three key features of each of these theories.
4. Match the following:

i. Theory of kingship	a. Mc Lennon and Edward Jenks
ii. Patriarchal Theory	b. James and Sir Robert filmers
iii. Matriarchal Theory	c. Sir Henry Main
iv. Divine Theory	d. Aristotle
5. What do you mean by the term 'totem'?
6. Who said that 'The life of human beings was solitary, poor, nasty, brutish and short'?
7. What do you know about Social contract theory of state? Compare the views of Hobbes, John Locke and Rousseau on social contract.
8. Critically evaluate the theory of social contract by Jean Jacques Rousseau.
9. What do you understand by Feudalism? Mention any two features if a feudalistic state.
10. What were the factors for the rise of the notion of states?
11. Give any three objectives of the establishment of international entities.
12. What are the elements of state? Explain the main features of each element.
13. What do you understand by minimal states?
14. What do you mean by developmental state?
15. What is the idea behind a totalitarian state?
16. How can a state function as a welfare state?
17. Define Nation. What are the essential elements of a nation?

Chapter 2: Organs of Government

1. What do you understand by 'Separation of Powers'?
2. Out of all the organs of the government, which seems to be the most powerful?
3. How Aristotle classified the states? What were the aspects of this classification?
4. What does the word 'Polity' mean for Aristotle?
5. How is democracy as defined by Aristotle different from the democracy followed in our country?
6. Which is the oldest form of government? Describe its features and mention the causes of its decline.
7. One of the neighboring countries had a parliamentary monarchy from 1990-1996. How is it different from absolute monarchy?
8. What is Aristocracy? How did Garner define it?
9. Explain the main features of Dictatorial form of government.
10. How do Pericles, Abraham Lincoln and Garner define democracy?
11. Explain the meaning of the words Initiative, Referendum and Plebiscite.
12. What are the main features of the parliamentary system of democracy?
13. Explain the presidential system of Democracy.
14. What are the main features of federal system of government?
15. Explain the role of judiciary as an organ of the government.
16. Describe various functions of the legislature as organs of government.
17. In India, the legislature has the power to impeach the president as well as the Chief Justice of the Supreme Court.
18. In India, the legislature has the power to impeach the President as well as the Chief Justice of the Supreme Court.

19. Other than India, name one country where confidence of legislature is required by the ruling party to stay in power.
20. Distinguish between Ordinary Bills and Money Bills.
21. How does a bill become a Law? Explain all three readings of the bill.
22. Explain the role of executive as an organ of the government.
23. What is judicial activism?

POLITICAL SCIENCE

CHAPTER 1: CONSTITUTION: Why and How

1. What is meant by the term Constitution?
2. What is the need and importance of the Constitution?
3. What are the main features of constitution?
4. What is meant by the term 'secular'? Is India a secular state?
5. What is Objective resolution?
6. What is Preamble?
7. Mention any four features of the Indian Constitution.
8. Define the Parliamentary form of Government.
9. 'India is a Union of States'. Discuss.
10. What are the reasons for the bulkiness of the Indian Constitution?
11. Write a short note on the Constituent Assembly.
12. "The Indian Constitution is both rigid and flexible". Explain.
13. Discuss why should we respect our constitution?
14. Is Indian constitution a Federal or a unitary one? Explain
15. How is the constitution of India amended?
16. 'India is a Sovereign, Socialist, Democratic Republic'. Explain
17. 'Constitution is a living document'. Explain.
18. Identify the main sources of the Indian Constitution. Describe in brief the provisions which have been taken from these sources.
19. Describe the main features of the Indian Constitution.
20. Discuss those provisions of the Indian Constitution which give it a federal form.
21. Describe the composition and the working of the Constituent Assembly of India.
22. Is India a republic? Give some points to support your answer.
23. How did the constituent assembly frame the constitution?

Chapter 2: Rights in the Indian Constitution

1. What is meant by the term Fundamental rights?
2. What is the importance of Fundamental Rights?
3. If the government tries to interfere in your Fundamental Rights, What can you do?
4. What are writs? Name the writs available to Indian citizens.
5. What do you know about the cultural and educational rights of the Indian Citizens?
6. Write a short note on the "Suspension of Fundamental Rights".
7. 'Rights imply Duties.' Justify
8. Write a brief essay on the Right to Equality in the Indian Constitution.

9. Describe briefly the Right to Freedom given in our constitution.
10. Explain the Cultural and Educational Rights of the Indian Citizens. What is their Utility?
11. Explain the Right to Freedom of Religion enshrined in the Constitution of India. What is its importance?
12. Describe the ten Fundamental Duties as prescribed by the Indian Constitution.
13. Distinguish between Fundamental Rights and the Directive Principles of State Policy.
14. Explain in your own words, the following writs:-
 - i) Quo-Warranto
 - ii) Prohibition
 - iii) Mandamus
 - iv) Certiorari
15. Write briefly, the main points included in the Right to Education Act, 2005.
16. Mention main features of Right to Information Act, 2005.
17. Ban on cow slaughter comes under which directive principles?
18. In which article, the Right to Liberty is mentioned?

FINE ARTS

Prepare any 3 sheets in water Colour painting and any 2 sheets in charod painting.

COMPUTER SCIENCE

Write the code of any five programs which you have compiled in the lab.

PHYSICAL EDUCATION

1. Write the difference between jump, throw and running in 100-120 words.
2. What is your observation about the opening and closing of National and International competition ceremonies? Write your response in 150-200 words in your Physical Education notebook.

FRENCH

Prepare a collage on Fregion's famous things. Chose any one region for the same.

PROJECT ON FINANCIAL LITERACY SKILLS

1. What are the different types of ITR?
2. Consider yourself to be an individual (salaried or business man) and determine which type of ITR form will be used to file ITR. File returns using hypothetical figures to see how much revenue your services or business generates for the ex-Chequer.
3. Explain in brief the sections for different types of Tax Exemptions for salaried/business person.