## EAST POINT SCHOOL ONLINE ASSIGNMENT 13 CLASS X

## **ENGLISH**

## ANIMALS BY WALT WHITMAN

#### **About the Poet**

- Walt Whitman was born on 31 May 1819 in New York.
- He was an American poet, essayist and journalist.
- 'Leaves of Grass' 0 Captain! My Captain!' and 'Song of Myself' are some of his great works.
- The present poem 'Animals' is one of the poems published in 'Leaves of Grass'.
- He died on 26 March 1892.

#### **About the Poem**

- The poet feels more comfortable and at home with animals.
- He doesn't feel comfortable with human beings.
- He wants to move away from human beings and live with animals.
- Animals are calm and contented.
- They never weep over their miserable conditions as humans do.
- They never worship God and weep for their sins.
- They don't suffer from the mania or madness of owning and possessing things.
- They don't fall down on knees to show respect to others.
- Thousands of years ago, the ancestors of human beings possessed the qualities of love and kindness.
- Men have lost those 'tokens' of love but animals still retain them.
- Human beings are confused, greedy and overambitious while animals are not.

Message	Rhyme Scheme	Literary Devices
The poet says that the animals are always more contented than people. We should learn this from the animals.	The poem is written in free verse.	<ul> <li>Personification throughout the poem</li> <li>Alliteration – make me sick</li> <li>Repetition – use of the word 'long'</li> <li>Assonance: use of vowel sound 'I' (I, think, I, live, with, animals)</li> <li>Anaphora: 'I' word used at the start of two consecutive lines</li> <li>Metaphor: sweat and whine refer to the cries and complaints of human beings, tokens as qualities</li> </ul>

## **Extract Based Question (Solved)**

<sup>&</sup>quot;I think I could turn and live with animals, they are

### so placid and self-containd,

#### I stand and look at them long and long."

- (a) What does the poet want to turn into?
- (b) Which qualities of animals attract the poet?
- (c) Which word is similar to the word "Calm"?
- (d) Explain the successive use of the word 'long' twice and bring out its significance.

#### **Answers:**

- (a) The poet wants to turn into an animal.
- (b) The poet is attracted to the calmness and poise of the animals.
- (c) The word is 'Placid'.
- (d) The successive use of the word 'long' makes the line significant; the first 'long', denotes 'period/Time' whereas the other, 'a desire'.

## 2. "They do not sweat and whine about their condition, They do not lie awake in the dark and weep for their sins, They do not make me sick discussing their duty to God"

- (a) Why do humans lie awake in the dark?.
- (b) What do humans do about their condition?
- (c) Which word is opposite to "good deeds"?
- (d) Find a word from the passage that is an antonym of 'Thanking'.

#### **Answers:**

- (a) Humans lie awake in the dark weeping for their sins.
- (b) They sweat and whine about their condition.
- (c) The word is 'Sins.'
- (d) The word is 'whine'

#### **Extract Based Question (unsolved)**

# 1. "Not one is dissatisfied, not one is demented with the mania of owning things, Not one kneels to another, nor to his kind that lived thousands of years ago, Not one is respectable or unhappy over the whole earth."

- (a) What does the poet call a mania here?
- (b) How are the animals not dissatisfied?
- (c) What does 'demented' mean?
- (d) Which word in the passage means 'species'?

## 2."Not one kneels to another, nor to his kind that lived thousands of years ago, Not one is respectable or unhappy over the whole earth."

- (a) Who does 'another' refer to here?
- (b) Who is the poet referring to that lived thousands of years ago?
- (c) What does 'kneel' symbolise here?
- (d) Which word in the passage is an antonym of 'a part'?

## **Short Answer Type Questions (Solved)**

#### 1. Why does the poet like animals?

The poet likes animals for their self-contained and quiet nature. The fact that animals are not like human beings and satisfied with their lives appeals to the poet a lot.

#### 2. Explain the satisfaction that animals have and humans don't.

Animals do not have the desire to possess worldly things. Whereas, the more humans own, the more their desire to own grows, leaving them dissatisfied forever. The absence of this greed in animals keeps them satisfied and its presence keeps humans dissatisfied.

#### 3. Why do animals not weep for their sins?

Animals do not weep for their sins because they do not need to do so. They are innocent creatures that commit no sins. It is humans, who weep yet commit sins.

#### 4. What makes the poet sick?

The fact, that humans commit all kinds of sins and still discuss their duty to God, makes the poet sick. This shows the hypocrisy of humans, who on one hand do wrong and on the other pray to God.

#### 5.Differentiate between humans and animals in terms of desire.

Animals are very different from humans as they have no desire to own things. They are happy without an unending greed while humans become maniacs in their greed for possessing valuables.

#### **Short Answer Type Questions (Unsolved)**

- 1. What quality of animals impresses the poet?
- 2. How, according to the poet, are animals superior to the humans?
- 3. Why does the poet wish to live with the animals?
- 4. What are the acts that animals don't do?
- 5. What does the poet mean by, "Not one is respectable or unhappy over the whole earth"?

#### **Long Answer Type Questions (Solved)**

## 1. Why do you think the poet has called the desire to own things, a mania? Is the poet right in doing so? Write your own views.

The poet uses words such as 'demented' and 'mania' for never ending desire of human beings to own things. These words show that poet is comparing this desire to madness. The poet stands right in doing so as this desire makes us so greedy and traps us in a vicious circle of aspiring more and more. Animals that are free from any possession are also free from sins, worries and complaints. In order to gain more wealth, all the important values such as morality and kindness are left behind.

#### 2. What according to you should be the virtues that humans should possess?

Human beings should be gentle not only to their own kind but also to everyone and everything. Virtues such as kindness bring along other important values like innocence and honesty that together make the world a better place to live. The lack of such values results in a corrupt society where people commit sins and weep over them in dark. This situation makes them dissatisfied and unhappy in life. Human beings probably had these virtues in them but along with civilisation processes, they have left them behind and adopted greed and cunningness.

## **Long Answer Type Questions (Unsolved)**

- 1. It is not complaining but accepting a situation, the key to happiness in life. Elaborate in context of the poem Animals'.
- 2. The poet in the poem Animals' laments the loss of certain values on the part of human beings, whereas animals seem to have retained them and are self contented. Analyze the cause of degeneration of values in today's hard times.
- 3. "Did I pass that way huge times ago and negligently drop them". Explain the line.

VIDEO LINK: <a href="https://youtu.be/xCzRUXWFepE">https://youtu.be/xCzRUXWFepE</a>

## **Geography Study Material**

## **Chapter 6: Manufacturing industries**

## **Jute Textiles and its problems:**

- India is the largest producer of raw jute and jute goods. There are about 70 jute mills in our country.
- First jute mill was setup in Rishra [Kolkata] in 1859.
- Most of the jute mills are located along Hugli River in West Bengal due to favourable conditions. Jute is used in making rope, bags, carpets etc. Bihar, UP, Assam and Tripura also have jute mills.
- Jute industries are facing problems like: a) main jute producing area went to Bangladesh, b) high production cost, c) declining demand of jute in international market, d) tough competition from synthetic fiber industry

# Factors responsible for the concentration of jute industry on the banks of Hoogly:

- 1. Proximity of the jute producing areas to the Hoogly Basin.
- 2. Inexpensive water transport provided by the Hoogly river.
- 3. It is well connected by a good network of railways, waterways and roadways.
- 4. Abundant water for processing raw jute.
- 5. Availability of cheap labor from West Bengal, Bihar, Odisha and Uttar Pradesh.
- 6. Kolkata as a port and large urban centre, provides banking, insurance and port facilities.

## Reasons for location of sugar mills close to the fields:

- 1. The raw material used, sugarcane is bulky and perishable.
- 2. It cannot be transported to long distances because its sucrose content dries up fast, so it should be processed within 24 hours of its harvest.

## Sugar Industry is shifting towards southern and western States, because—

Cane produced here has higher sucrose content, the favorable climatic conditions (cooler climate) ensure a longer growing and crushing season. The Cooperatives are more successful in these States. Sugar industry being seasonal in nature, is ideal for the cooperative sector. Yield per hectare is higher in southern States.

<u>Following are the challenges faced by Jute industries in India</u>: (i) Prices of jute textiles are so low that industrialists hesitate to set up these industries.

- (ii) The international demand for jute goods is falling sharply which is not an encouragement for these industries.
- (iii) Many countries now prefer substitutes for jute like plastic or synthetic fibres which reduces its demand.
- (iv) Our jute industries face hard competition from Brazil, Thailand, Bangladesh and Egypt whose production cost of jute textile is much lower than in India.
- (v) As jute exhausts soil fertility very fast and also because of its low profits, farmers now prefer to cultivate alternative crops like Rice.

## **Objectives of National Jute Policy:-**

- (a) To expand production
- (b) To enhance quality
- (c) To provide good prices to the farmers
- (d) To enhance yield per hectare.

## Video link:-

https://www.youtube.com/watch?v=Q8MwJg9JIBY&feature=youtu.be

https://www.youtube.com/watch?v=dqRy0ed36Xw&feature=youtu.be

 $\underline{https://www.youtube.com/watch?v=} Es3P4Mcubhc\&feature=\underline{youtu.be}$ 

## **Questions**

- 1. Why has the "National Manufacturing Competitiveness council." been setup ?
- 2. Why is the least cost Known as decision making factor for Ideal location of an industry. (1)
- 3. Where was the first jute mill setup in India? (1)
- 4. Analyse any three major challenges faced by the sugar industry in India. (3)
- 5. Why is there a tendency for the sugar mills to concentrate in southern states of India in recent years? Give three reasons (3)
- 6. "Textile industry occupies a unique position in Indian economy" support the statement with appropriate arguments. (3)
- 7. Explain any five factors that are responsible for the location of the Jute mills mainly along the banks of the Hugli river. (5)
- 8. Explain any two main challenges faced by the jute industry in India. Explain any three objectives National Jute Policy . (5)

## **Activity**

- Select one agro based & one mineral based industry In your area .
  - 1. What are the raw materials the used?
  - 2. What are the other inputs in the process of manufacturing that involve transportation cost ?

## **HISTORY**

Chapter- The age of industrialisation

Write the answer of following questions not more than 80 words marks carry 3.

1. Why did merchant move to countryside?

- 2. Within this system a close relationship developed between the town and the countryside . Justify the statement .
- 3. How did factory come in England?
- 4. A series of invention in the eighteenth century increased the efficacy of each step of the production process. Justify the statements?
- 5. Why did some Industrialist in nineteenth century Europe prefer hand labour over machines?
- 6. How did the East India company procure regular supplies of cotton and silk textiles from Indian Weavers?
- 7. The port of Surat declined by the end of 18th century. Explain?
- 8. How was infrastructure devloped after the 1840s?
- 9. Why was the jobber employed by Indian industrialist?
- 10. How did the small scale industeries predominate in India?
- 11. Why was the Industrial groth slow till the First World War?
- 12. Why was the steam engine slow to be accepted by industeries?

VIDEO LINK: <a href="https://www.youtube.com/watch?v=MUoaow2umRc&authuser=0">https://www.youtube.com/watch?v=MUoaow2umRc&authuser=0</a>

## POLITICAL SCIENCE

## **Chapter-1**

**Political Theory: An Introduction** 

#### What is Political Theory?

Political theory is the study of state from philosophical point of view. It manages an understanding between the people and the state. It is a combination of thoughts, philosophies, science, arts and debates and examines diverse meanings and opinions in a systematic manner. Thus, Political theory systematically think about the values which will help in governing our society. It deals with the ideas and principles that shapes constitution, governments and social life in a systematic manner.

#### The Scope of Political theory -

- 1. Political theory systematically and critically evaluates values which are part of our life such as freedom, equality and justice.
- 2. It clarifies the existing definitions of various concepts in the light of views of political thinkers.
- 3. It examines how far does freedom and equality exist in society and how it can be achieved.
- 4. It deals with the importance of various principles such as rule of law, separation of powers, judicial review.
- 5. It examines arguments in favour or against these concepts and tries to modify them to make more suitable or democratic in modern time.
- 6. It trains citizens to think rationally about political questions and assess the political events.
- 7. It shapes our opinion and argues in an informed manner. It also examines how existing institutions can be made more democratic.

#### What is Politics?

- Politics is the art of influencing other people on a civic or individual level. More narrowly, it has been regarded as the study of the state or power or a struggle to attain power.
- Politics has come to be associated with manipulation and intrigue undertaken to pursue ambitious and satisfy wants.
- We need to realize that politics is an important and integral part of any society as it is the process by which decisions are taken in the interest of the people.
- It helps in resolving conflicts and allowing equal distribution of resources so that we are able to have an equal and fair society.
- No society can exist without some form of political organization and collective decision making.

#### **Politics and Government**

- 1. A number of social institutions such as the family, tribes and economic institutions have emerged to help people to fulfill their needs and aspirations.
- 2. Among such institutions government plays an important part. The functioning of the government affects the lives of the people to great extent. The representatives chosen by us form the government, which determines our economic policy, foreign policy and educational policy.
- 3. Effective implementation of these policies ensure the general welfare of the people and raises their standard of living.
- 4. On the other hand, an inefficient or corrupt government can endanger people's lives and security. This may result in violence, closing down of markets and schools and ultimately disturbs our day to day life.

To sum up, politics arises from the fact that we have different visions of what is just and desirable for us and our society. It not only involves what governments do and how they relate to the aspirations of the people but also involves how people struggle and influence decision-making.

#### What do we study in Political theory?/ Relevance of Political theory.

- 1. Political theory deals with the ideas and principles that shape constitutions, governments and social life in a systematic manner.
- 2. It clarifies the meaning of concepts like freedom, equality, justice, democracy, secularism etc.
- 3. It sports the significance of principles such as rule of law, separation of powers, judicial review etc.
- 4. Political theorist examine arguments of thinkers and then defend values and shape possibilities for the future.
- 5. Although society has achieved freedom and equality in the political sphere but there are other sections which are discriminated and have not been able to achieve the same in economic or social spheres.
- 6. Society changes with changing times and as society changes different interpretations of concepts like freedom, equality and right emerges. For example now our rights have been expanded and we have right to information as one of our rights.

Thus, even though India has got independence and is a free and independent state but there are still restrictions in the form of discrimination on the basis of caste, gender, religion or region. There is poverty and unemployment, some are privileged while others are deprived of basic necessities. So to bring freedom and equality to all sections we need political theory.

#### Why should we study Political theory?

It is very important to study Political theory because of the following reasons –

- 1. <u>Future profession</u> The study of political theory is relevant not only for politicians but also for bureaucrats, lawyers, judges, students etc. It helps in practicing politics, making policies, teaching and for the interpretation of the constitution and laws.
- 2. <u>Basic Knowledge</u> To be a responsible citizen it is helpful to have a basic knowledge of the political ideas and institutions that shape the world we live in. It is crucial to be reasonable and become a vigilant citizen. To be effective in our thoughts we must have a thorough knowledge. Political theory imparts such basic and thorough knowledge.
- 3. <u>It liberalises the outlook</u> Political theory encourages us to examine our ideas and feelings about political things and makes us more moderate about ideas and feelings.
- 4. <u>Debates and arguments</u> Every individual has opinions about what is right or wrong, just or unjust but do not know whether they are reasonable or not. Political theory exposes us to systematic thinking on justice or equality so that we can polish opinions and argue in an informed manner and for the sake of common interests.

Thus, Political theory is a vast field. The political theorists have given diverse definitions of political ideas such as freedom, equality, citizenship, justice, development etc. and have clarified the meaning of looking at how they are understood and used in an ordinary language.

VIDEO LINK: https://youtu.be/hWnpRce\_NVk

## **SOCIAL SCIENCE (ECONOMICS)**

Chapter 3: Money and Credit Study Notes

#### **DEMAND DEPOSITS AS MONEY**

The deposits in the bank accounts can be withdrawn on demands by issuing cheques, they are known as Demand

#### Deposits

The facility of cheques against demand deposits makes it possible to directly settle payments without the use of cash.

Demand deposits offer another interesting facility. It is this facility which lends it the essential characteristics of money (that of a medium of exchange).

For payment through cheque, the payer who has an account with the bank, makes out a cheque for a specific amount.

A cheque is a paper instructing the bank to pay a specific amount from the person's account to the person in whose name the cheque has been issued.

#### **Cheque Payments**

- A shoe manufacturer, M. Salim has to make a payment to the leather supplier and writes a cheque for a specific amount.
- This means that the shoe manufacturer instructs his bank to pay this amount to the leather supplier.
- The leather supplier takes this cheque, and deposits it in his own account in the bank.
- The money is transferred from one bank account to another bank account in a couple of days.



	According to the contract of the contract of			
The transaction	is complete	without any	payment of cash.	

1) Why do banks maintain cash reserve? [2016]

(1)

2) How do the deposits with banks become their source of income? [Delhi 2016]

6] (1) (1)

3) What is meant by credit?

(3)

4) What are demand deposits? Explain any three features of it? [2016]

(3)

How is money transferred from one bank account to another bank account? Explain with an example. [Foreign 2016]

(3)

(5)

Or

Which type of deposits with the banks are called demand deposits? State some important features of demand deposits.

[2012]

Or

"Banks are efficient medium of exchange." Support the statement with arguments. [D 2017] (3)

#### Video Links

https://www.youtube.com/watch?v=Ws5QpLEw1XU&t=307s

https://www.youtube.com/watch?v=yn-aDG4hTDE

#### **PHYSICS**

#### <u>Link-</u>https://youtu.be/4rsswT Rv1M

#### **Assignment**

- 1) The resistance of a wire of 0.01 cm radius is 10  $\Omega$ . If the resistivity of the material of the wire is  $50 \times 10^{-8}$  ohm meters, find the length of the wire.
- 2) Show different ways in which three resistances of R ohm each can be connected in a circuit. In which case is the equivalent resistance of the combination:
  - a. maximum
- (ii) minimum
- 3) Three resistors of 1  $\Omega$ , 2  $\Omega$  and 3  $\Omega$  are connected in parallel in a circuit. If 1  $\Omega$  resistor draw a current of 1 A, find the current through the other two resistors.
- 4) When a resistor R is connected to a battery of 3 V, it draws a current of 1 ampere. Find the value of R. If an identical resistor is connected in parallel with it, find the current that flows through the circuit.
- Why is the series arrangement of appliances not used for domestic circuits? 5)
- Resistors are given as  $R_1 = 10$ ohm,  $R_2 = 20$  ohm, and  $R_3 = 30$  ohm. Calculate the effective resistance 6) when they are connected in series. Also calculate the current flowing when the combination is connected to a 6 V battery.
- 7) Why is Tungsten used almost exclusively for filament of electric lamps? 8) What happens to resistance of the conductor?

- )		
1	When Temperature is increased	
2	When the length is doubled	
3	When area of cross-section is increased	

#### Give the formula for each:

1	Ohm's Law	
2	Resistance in terms of Length, Area, resistivity	
3	Current in terms of Resistance and Voltage	
4	Equivalent Resistance for Resistors in Series	
5	Equivalent Resistance for Resistors in Parallel	
6	Power produced in the resistance	

### **CHEMISTRY**

Previous Board questions. Acids bases and salts Class x

- 1. The chemical formula for plaster of paris is:
  - a) CaSO<sub>4</sub>.2 H<sub>2</sub>O

(b) CaSO<sub>4</sub>.H<sub>2</sub>O

c) CaSO<sub>4</sub>.1/2 H<sub>2</sub>O

- d) 2CaSO<sub>4</sub>.H<sub>2</sub>O
- 2. Baking powder is a mixture of:
  - a) Sodium carbonate and acetic acid
- b) Sodium carbonate and tartaric acid
- c) Sodium hydrogen carbonate and tartaric acid
- d) Sodium hydrogen carbonate and acetic acid
- 3. 2mL of NaOH solution is added to a few pieces of granulated Zn metal in a test tube.

When the content are warmed, a gas evolves which is bubbled through soap solution before testing. Write the equation of the chemical reaction involved and test to detect the gas. Name the gas which will be evolved when the same metal reacts with dilute solution of a strong acid.

- 4. The pH of a salt used to make tasty pakoras is 8.8. Identify the salt and write a chemical equation for its formation. List its two uses.
- 5. Salt P, commonly used in bakery products, on heating gets converted into salt Q, which itself is used in the removal of hardness of water and a gas R. the gas when passed through freshly prepared lime water turns milky. Identify P, Q and R, giving chemical equation for the justification of your answer.
- 6. Write the main difference between an acid and a base. With the help of suitable examples, explain neutralisation and formation of
  - a) Acidic salt
- b) basic salt
- c) neural salt
- 7. Identify the acid and base which form sodium hydrogen carbonate. Write the chemical equation in support of your answer. State whether this compound is acidic, basic or neutral. Also write its pH value.
- 8. 1 g of solid NaCl is taken in a clean and dry test tube and 2 mL of concentrated H<sub>2</sub>SO<sub>4</sub> is added to it. If the gas evolved is tested with dry and then with wet litmus paper, in which case the litmus paper change the colour? Give reason. What inference you draw and also write the chemical equation involved.
- 9. a) For the preparation of cake, baking powder is used. If at home your mother used baking soda instead of baking powder, how will it affect the taste of cake and why?
  - b) How is baking soda converted into baking powder?
  - c) What makes the cake soft and fluffy?
- 10. List the important products of the Chlor-alkali process. Write one important use of each.
- 11. How is washing soda prepared from sodium carbonate? Give its chemical equation. State the type of this salt. Name the type of hardness of water which can be removed by it?
- 12. A metallic compound M reacts with dilute hydrochloric acid to produce effervescence. The gas evolved extinguishes a burning candle. Write a balanced chemical equation for the reaction if one of the compound formed is calcium chloride. Also write the chemical equation to test the gas produced in the reaction.
- 13. What is pH scale? Write the range of this scale and also mention its significance.
- 14. a) While diluting an acid, why is it recommended that the acid should be added to water and not water to the acid?
  - b) Dry hydrogen chloride gas do not change the colour of dry litmus paper. Why?
- 15. How is sodium hydroxide manufactured in industries? Name the process. In this process, a gas X is formed as a by-product. This gas reacts with lime water to give a compound Y, which is used as a bleaching agent in the chemical industry. Identify X and Y and write the chemical equation of the reaction involved.
- 16. Identify the acid and base from which sodium chloride is obtained. Which type of salt is it? When is it called rock salt? How is rock salt formed?
- 17. When you drop HCl in a test tube containing sodium hydrogen carbonate, what is observation?:

- a) No reaction
- b) A colourless gas with pungent smell is evolved
- c) A brown colour gas with pungent smell is evolved
- d) A colourless and odourless gas with brisk effervescence is evolved.

VIDEO LINK: <a href="https://www.youtube.com/watch?v=JkWqNH7OYVM&authuser=0">https://www.youtube.com/watch?v=JkWqNH7OYVM&authuser=0</a> https://youtu.be/JkWqNH7OYVM

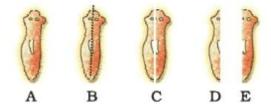
#### **BIOLOGY**

#### Assignment

Topic: How do organisms reproduce (2)

#### Class X

- 1. In a bisexual flower in spite of all stamens removed artificially, the flower produce fruit. Why?
- 2. Explain how the normal chromosome number is established in the new offspring of sexually reproducing organisms?
- 3. Why the Rhizopus grow profusely on moist bread than dry bread.
- 4. Would a Planaria cut vertically into 2 halves regenerate into 2 individuals? Complete the figure below by indicating the regenerated regions.



- 5. Draw the germination of pollen grain on stigma.
- 6. Which part converts into fruit, seed, embryo?

VIDEO LINK: <a href="https://www.youtube.com/watch?v=MOWswa8pK8s&authuser=0">https://www.youtube.com/watch?v=MOWswa8pK8s&authuser=0</a>

https://www.youtube.com/watch?v=J\_70m\_sHrrl&authuser=0

## **MATHEMATICS**

## Chapter 5 Arithmetic Progression

#### **Key Points**

- Sequence: A set of numbers arranged in some definite order and formed according to some rules is called a sequence.
- Arithmetic Progression: A sequence in which the difference of each term from its succeeding term is constant throughout, is called an arithmetic sequence or arithmetic progression (A.P.).

In other words, A.P. is sequence,  $a_1, a_2, a_3, ..., a_n$  such that  $a_2 - a_1 = a_3 - a_2 = a_4 - a_3 = a_n - a_{n-1} = d$  and so on

- General Term: If 'a' is the first term and 'd' is common difference in an A.P., then nth term (general term) is given by a<sub>n</sub> = a + (n − 1)d
- Sum of n Terms of an A.P.: If 'a' is the first term and 'd' is the common difference of an A.P., then sum of first n terms is given by

$$S_n = \frac{n}{2} \{ 2a + (n-1)d \}$$

If 'a' is the first term &l is the last/nth term of a finite A.P., then the sum is given by

$$S_n = \frac{n}{2}(a+l)$$

- If a<sub>n</sub> is given, then common difference d = a<sub>n</sub> a<sub>n-1</sub>
- If S<sub>n</sub> is given, then nth term is given by a<sub>n</sub> = S<sub>n</sub> − S<sub>n-1</sub>
- If a, b, c are in A.P., then 2b = a + c
- If a sequence has n terms, itsr<sup>th</sup>term from the end = (n-r+1)<sup>th</sup> term from the beginning.
- Difference of m<sup>th</sup> and n<sup>th</sup> term of an A.P. = (m n)d.

#### **VERY SHORT ANSWER TYPE QUESTIONS**

- Find 5th term of an A.P. whose n<sup>th</sup> term is 3n 5.
- Find the sum of first 10 even numbers.
- Write the n<sup>th</sup>term of odd numbers.
- Write the sum of first n natural numbers.
- Write the sum of first n even numbers.
- Find the n<sup>th</sup>term of the A.P.-10,-15,-20,-25,...
- Find the common difference of A.P. 4<sup>1</sup>/<sub>q</sub>, 4<sup>2</sup>/<sub>q</sub>, 4<sup>1</sup>/<sub>3</sub>,...
- Write the common difference of an A.P. whose n<sup>th</sup> term is a<sub>n</sub> = 3n + 7
- What will be the value of a<sub>8</sub> a<sub>4</sub> for the following A.P. 4,9,14,.......,254
- 10. What is value of  $a_{30} a_{10}$  for the A.P. -10, -12, -14, -16, ...
- 11. If 2k, 4k 3 and 4k + 4 are in A.P. find the value of k.
- 12. For what value of p, the following terms are three consecutive terms of an A.P.  $\frac{4}{5}$ , p, 2

#### SHORT ANSWER TYPE QUESTIONS

- 13. Is 144 a term of the A.P. 3, 7, 11, ..........? Justify your answer.
- Which term of the A.P. 5.15.25.......will be 130 more than its 31st term?
- The first term, common difference and last term of anA.P. are 12, 6 and 252 respectively, Find the sum of all terms of this A.P.
- Find the sum of first 15 multiples of 8.
- 18. Is the sequence formed in the following situations an A.P.
  - a) Number of students left in the school auditorium from the total strength of 1000 students when they leave the auditorium in batches of 25.
  - b) The amount of money in the account every year when ₹100 are deposited annually to accumulate at compound interest at 4% per annum.

- Find the sum of even positive integers between 1 and 200.
- If 4m + 8,2m<sup>2</sup> + 3m + 6,3m<sup>2</sup> + 4m + 4 are three consecutive terms of an A.P. find m
- How many terms of the A.P. 22,20,18,...... should be taken so that their sum is zero?
   If 10 times of 10th term is equal to 20 times of 20th term of an A.P. find its 30th term.
   Find the middle term of the A.P. 6,13,20,...,216
- 24. Which term of the A.P. 20, 19 1, 18 1, 17 1, 18 1, 17 1, ... is the first negative term? Find the term also.
- Find the middle terms of the A.P. 7,13,19, ......,241
- Find the sum of integers between 10 and 500 which are divisible by 7.
- 27. The sum of 5th and 9th terms of an A.P. is 72 and the sum of 7th and 12th term is 97. Find the A.P.
- 28. If the  $m^{th}$  term of an A.P. be  $\frac{1}{n}$  and  $n^{th}$  term be  $\frac{1}{m}$ , show that its  $(mn)^{th}$  term is 1.
- 29. If the  $p^{th}$  term of an A.P. be q and  $q^{th}$  term be p, show that its  $(n)^{th}$  term is (p+q-n) 30. If p times the  $p^{th}$  term of an A.P. is equal to q times the  $q^{th}$  term. show that  $(p+q)^{th}$  term of an A.P. is zero.
- For what value of m are the mth terms of the following two A.P.'s the same? a) 1,3,5,7, ...... b) 4,8,12,16, ......
- The 24<sup>th</sup> term of an A.P. is twice its10<sup>th</sup> term. Show that 72<sup>th</sup> term is 4 times its15<sup>th</sup> term.
- 33. Find the number of natural numbers between 101 and 999 which are divisible by both
- 34. If the seventh term of an A.P. is  $\frac{1}{9}$  and ninth term is  $\frac{1}{7}$ , find its  $63^{rd}$  term.
- 35. The sum of 5th and 9th terms of an A.P. is 30. If its 25th term is three times its 8th term, find the A.P.
- 36. If  $S_n$  the sum of firstn terms of an A.P. is given by  $S_n = 5n^2 + 3n$ , then find its  $n^{th}$  term and common difference.

#### LONG ANSWER TYPE QUESTIONS

- 37. The sum of third and seventh terms of an A.P. is 6 and their product is 8. Find the sum of first 16th terms of the A.P.
- 38. If the  $m^{th}$  term of an A.P. is  $\frac{1}{n}$  and the  $n^{th}$  term is  $\frac{1}{m}$ , show that  $S_{mn} = \frac{1}{2} (mn + 1)$ .
- 39. If in an A.P. the sum of first m terms is equal to n and the sum of first n terms is m, prove that the sum of first (m + n) terms is -(m + n).
- If S<sub>n</sub>denote the sum of first n terms of an A.P., prove that S<sub>12</sub> = 3(S<sub>8</sub> S<sub>4</sub>)
- If the sum of first k terms of an A.P. is <sup>1</sup>/<sub>2</sub>(3k<sup>2</sup> + 7k), write its k<sup>th</sup> term. Hence find its 20th term.
- 42. The sum of first 9 terms of an A.P. is 162. The ratio of its 6th term to its 13th term is 1:2. Find the first and fifteenth terms of the A.P.
- 43. If the 10th term of an A.P. is 21 and the sum of its first 10 terms is 120, find its nth term.
- 44. The sum of first 7 terms of an A.P. is 63 and the sum of its next 7 term is 161. Find the 28th term of this A.P.
- The sum of first q terms of an A.P. is 63q 3q<sup>2</sup>. If n<sup>th</sup> term is -60, find the value of p. Also find the 11th term of this A.P.
- 46. In an A.P. the first term is -2, the last term is -29 and sum of all term is-155. Find the 11th term of this A.P.
- 47. The sum of first 20 terms of an A.P. is one third of the sum of next 20 terms. If first term is 1, find the sum of first 30 terms of this A.P.
- 48. The sum of first 10 terms of an A.P. is one third of the sum of next 10 terms. If first term is -5, find the sum of its first 30 terms.
- 49. The eighth term of an A.P. is half the second term and the eleventh term exceeds one third of its fourth term by 1. Find its 15th term.

 The digits of a three digits positive number are in A.P. and the sum of digits is 15. On subtracting 594 from the number, the digits are reversed. Find the number.

#### ANSWERS

1. 10

 $4.\,\frac{n(n+1)}{2}$ 

 $7.\frac{1}{9}$ 

10. -40

13. NO

16. 5412

19. 9900

22.0

25. 121, 127

31. No such value of m exist

35. 3,5,7,9,11,.....

 $41.\; a_{20}=62, a_k=3k+2$ 

44. 57

47. 900

50.852

2. 110

5. n(n+1)

8. 3

11. k = 5

14. 158

17. 540

20. m = 0, 2

23. 111

26. 17885

33, 89

36.  $a_n = 10n - 2$ , d = 10

42. 6, 48

45.  $p = 21, a_{11} = 0$ 

48. -4500

3.2n - 1

6. -5(n+1)

9. 20

 $12.\frac{7}{5}$ 

15. 44th

18. a) yes b) No

21.23

24. 28th

27. 6,11,16,21,26,.....

34.1

37. 76,20

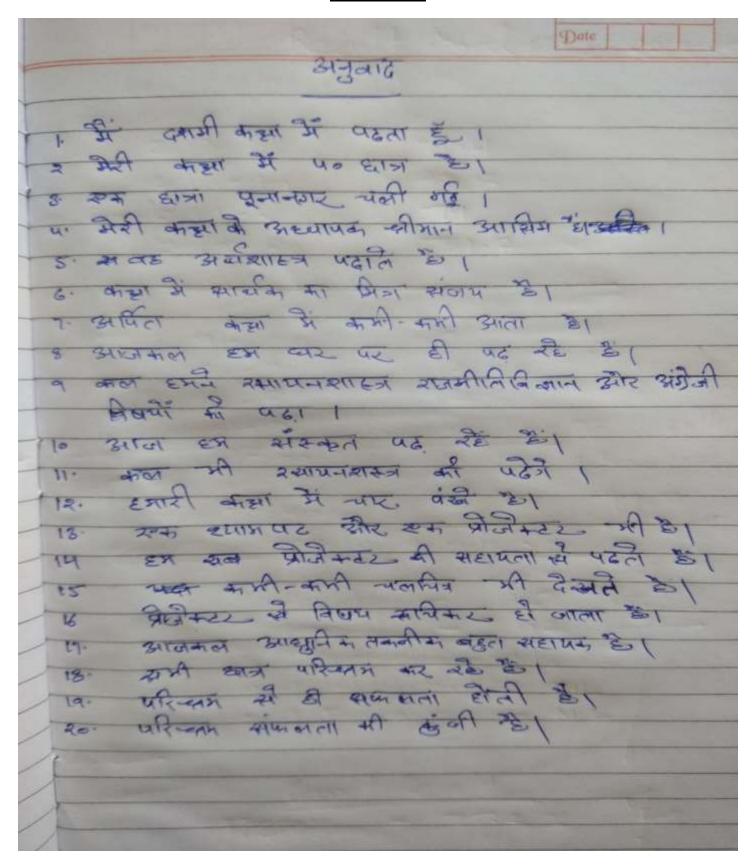
43. 2n + 1

46. -32

49.3

Prashant Jain;

#### **SANSKRIT**



#### **ASSIGNMENT**

IT

#### **TOPIC:SPREADSHEET**

ı	ΙFi	ill	Ιi	n	t	h	Δ	h	la	n	kc

1. To insert a page break, select the row	below where you v	want to insert the page bre	ak.
2. To insert a page break, select the c	column to the right	of where you want to inse	ert the page break.
3. The Breaks option is available under	group in the Pa	ge Layout tab.	
4. To return to Normal view after you finish working	with the page brea	ks, you need to click	in the
group under the View tab.			
5. Spread sheet software provides various page layou	ut options for orgar	nizing pages using the	View.
6 Margins option is available under	group in the	tab.	
7. Two types of page orientation are	&	·	
8. Assigning names to cells in a worksheet help you to	)	specific cells.	
9. The Define Name option is available under	grou	p in the tab.	

#### II.Perform the following Practicals

- 1 Apply names to cells and cell ranges and use them in formulae
- 2. Using the worksheet created in this exercise, calculate the cost of Vegetables. Save the workbook as Grocery\_{your name}.

3.

· ------ , --- ----

S.No.	Activities	
1.	Sort a dataset in the required order	
2.	Filter data on specified criteria	

Create a worksheet with the data given below. Create totals. Calculate percentages.
 Use this to sort data subject wise and also rank-wise. Save this file as Student\_{your name}.

Students	Test 1	Test 2	Test 3	Test 4
Shilpa	50	65	57	77
Sheela	98	99	78	58
Avikal	76	78	98	96
Vaibhav	87	76	92	67
Abhijeet	56	88	66	88
Surbhi	68	85	92	99
Kavita	99	58	78	89
Tanishk	79	78	56	78
Vishwank	59	81	78	67

#### **VIDEO LINKS**

https://www.youtube.com/watch?v=bU7nrWdyFuA&list=PL1dAXf3IoXwUb14Kt2VkaXkdzvYYQVTWx&index=10

https://www.youtube.com/watch?v=FbhnvuN\_YIQ

https://www.youtube.com/watch?v=-FfUEN RAqU

#### **HINDI**

## पाठ्य पुस्तक प्रश्न

## (क) निम्नलिखित प्रश्नों के उत्तर दीजिए-

#### प्रश्न 1.

पावस ऋतु में प्रकृति में कौन-कौन से परिवर्तन आते हैं? कविता के आधार पर स्पष्ट कीजिए। उत्तर:

<u>पावस ऋतु में पर्वतीय प्रदेश में प्रकृति में पल-पल नए-नए परिवर्तन होते रहते हैं जिन्हें देखकर</u> लगता है कि प्रकृति अपना परिधान बदल रही है। इससे प्रकृति का सौंदर्य और भी मनोहारी हो जाता है। पावस ऋतु में इस प्रदेश में निम्नलिखित बदलाव आते हैं-

तालाब जल से भर उठता है, जिसमें पहाड़ अपनी परछाई देखता प्रतीत होता है। पर्वत पर भाँति-भाँति के फूल खिल जाते हैं।

झरने मोतियों की लड़ियों की भाँति सुंदर लगते हैं।

अचानक बादल छा जाने से पर्वत और झरने अदृश्य हो जाते हैं।

तालाब से धुआँ-सा उठने लगता है।

शाल के वृक्ष बादलों में खोए से लगते हैं।

आकाश में उड़ते बादल इंद्र देवता के उड़ते विमान-से लगते हैं।

## 

<u>"मेखलाकार" शब्द का क्या अर्थ है? कवि ने इस शब्द का प्रयोग यहाँ क्यों किया है?</u>

## उत्तर:

'मेखलाकार' शब्द का अर्थ है-"करधनी' के आकार की पहाड़ की ढाल, अर्थात् जिसने चारों ओर से घेरा बनाया हुआ हो। कवि ने इस शब्द का प्रयोग यहाँ इसलिए किया है, क्योंकि ये पर्वत संपूर्ण पर्वत प्रदेश में चारों ओर से घेरा बनाकर खड़े प्रतीत होते हैं।

## 

<u>'सहस्र दग-सुमन'</u> से क्यो तात्पर्य है? कवि ने इस पद का प्रयोग किसके लिए किया होगा? उत्तर:

'सहस्र हग-सुमन' का तात्पर्य है- हज़ारों पुष्प रूपी आँखें। पर्वतीय प्रदेश में वर्षा ऋतु में पर्वतों पर नाना प्रकार के रंग-बिरंगे हज़ारों फूल खिल जाते हैं। पहाड़ के पैरों के पास जो विशाल तालाब है, उसमें पहाड़ का प्रतिबिंब बन रहा है। पहाड़ पर खिले हुए इन फूलों को देखकर लगता है कि पर्वत इन फूल रूपी आँखों से अपना प्रतिबिंब जल में निहारकर आत्ममुग्ध हो रहे हैं।

कवि ने इस पद का प्रयोग पहाड़ पर खिले हजारों फूलों के लिए किया है।

4.कवि ने तालाब की समानता किसके साथ दिखाई है और क्यों?

#### उत्तर:

'पर्वत प्रदेश में पावस' कविता में तालाब की समानता दर्पण के साथ दिखाई गई है, क्योंकि दोनों पारदर्शी हैं तथा दोनों में व्यक्ति अपना प्रतिबिंब देख सकता है। तालाव का जल निर्मल व स्वच्छ है। तालाब में दर्पण की भाँति महाकार पर्वत अपना प्रतिबिंब निहार रहा है।

## 

<u>पर्वत के हृदय से उठकर ऊँचे-ऊँचे वृक्ष आकाश की ओर क्यों देख रहे थे और वे किस बात को प्रतिबिंबित करते हैं?</u>

## उत्तर:

पर्वत के हृदय से उठे ऊँचे-ऊँचे वृक्ष आकाश की ओर इसलिए देख रहे हैं क्योंकि वे आकाश को छूने का प्रयास कर रहे हैं। इन पेड़ों की आकांक्षाएँ आकाश सरीखी ऊँची हैं। वे इन आकांक्षाओं को पूरी करने के उपाय के लिए चिंतनशील से प्रतीत होते हैं। <u>ऊँचे-ऊँचे पेड़ इस बात को प्रतिबिंबित करते हैं कि मनुष्य को अपनी महत्त्वाकांक्षाओं की पूर्ति के</u> लिए, अपने लक्ष्य को पाने के लिए एकाग्रचित्त होकर चिंतन-मनन करते हुए उपाय सोचना चाहिए। शाल के वृक्ष भयभीत होकर धरती में क्यों फँस गए?

### उत्तर:

पर्वत प्रदेश में पावस के समय कभी-कभी ऐसा प्रतीत होता है, मानों पृथ्वी पर आसमान टूट पड़ा हो और इस भय से उच्च-आकांक्षाओं से युक्त विशाल शाल के पेड़ धरती में धंस गए हों।

### **प्रश्न** 7.

झरने किसके गौरव का गान कर रहे हैं? बहते हुए झरने की तुलना किससे की गई है?

## उत्तर:

<u>झर-झरकर बहते हुए झरने पर्वतों का गौरव गान कर रहे हैं। कवि ने इन बहते झरनों की तुलना</u> <u>मोतियों की लड़ियों से की है। ये झरने सफ़ेद झाग से युक्त हैं। इन्हें देखकर लगता है कि जैसे ये</u> <u>झरने पर्वतों के सीने पर मोतियों की लड़ियाँ हैं।</u>

(ख) निम्नलिखित का भाव स्पष्ट कीजिए-

## <u>प्रश्न 1.</u>

है टूट पड़ा भू पर अंबर।

## <u>उत्तर:</u>

पर्वतीय प्रदेश में वर्षा ऋतु में जब बादल घिरते हैं तो कभी-कभी अचानक मूसलाधार वर्षा होने लगती है। इन बादलों के कारण पहाड़, पेड़, झरने तक अदृश्य हो जाते हैं। वर्षा का वेग देखकर लगता है कि आकाश धरती पर टूट पड़ा है।

## प्रश्न 2.

यों जलद-यान में विचर-विचर था इंद्र खेलता इंद्रजाल ।

### उत्तर:

पर्वत के सीने पर उगे ऊँचे-ऊँचे वृक्षों को देखकर लगता है कि वे मनुष्य की ऊँची-ऊँची महत्त्वाकांक्षाओं की भाँति ऊँचे आसमान की ओर अडिग होकर अपलक निहारे जा रहे हैं। ऐसा लगता है कि वे आसमान छूना चाहते हैं। वे आसमान कैसे छुएँ, इसी के लिए उपाय सोचते हुए चिंतातुर से प्रतीत हो रहे हैं।

VIDEO LINK: https://youtu.be/VuACD1zzg7Q