# EAST POINT SCHOOL CLASS X ASSIGNMENT 11

## **ENGLISH**

# The Hundred Dresses I By: Eleanor Estes

#### About the author

- **Eleanor Estes** (May 9, 1906 July 15, 1988)
- Was an American children's author and a children's librarian.
- Her book, Ginger Pye, which she also created illustrations for, won the Newbery Medal.
- Three of her books were Newbery Honor Winners, and one was awarded the Lewis Carroll Shelf Award.
- Estes' books were based on her life in small town Connecticut in the early 1900s

#### About the chapter

- Wanda Petronski usually sat in the last row in Room No. 13.
- Only 'rough boys' who never scored good marks and made a lot of noise used to sit there.
- Wanda was a very quiet girl who rarely said anything to anybody.
- She had no friends and came to school and went home alone.
- Peggy was the most popular girl in the class.
- She was pretty, had many dresses and curly hair.
- Wanda was a poor girl who always wore a faded blue dress which was never ironed properly.
- Her name Wanda Petronski was difficult to pronounce and looked funny to the children.
- Maddie was poor and wore old clothes given to her by Peggy.
- She didn't like Peggy's questioning of Wanda about her hundred dresses, shoes and hats.
- She wished Peggy would not tease and mock Wanda in such an insulting manner.
- Everyone was waiting for the winner of the drawing and colour competition.
- Everybody thought that Peggy would be the winner as she could draw better than anyone in the class.
- Next day, when they entered the room 13, they found drawings all over the room.
- Miss Mason declared that where only one or two sketches were sent by most of the girls, one girl sent a hundred drawings, all different and beautiful.
- Miss Mason declared that Wanda Petronski was the winner of the girls' medal.
- Unfortunately, Wanda was not present to hear the applause that was due to her.

#### Message:

This story conveys a message about racial discrimination. It is one of the ills of the society which has an adverse impact on the people.

#### Theme

The main theme of the story is about the act of forgiving someone's mistake. In this story, Wanda forgives her classmates who used to bully her for her weird name and her story about hundred dresses.

#### **Characters:**

#### Wanda Petronski

- Wanda is the owner of the hundred dresses in the book's title.
- She is of Polish heritage and has a name most people struggle to pronounce.
- She is from a poor family and lives in the poor area of town with her brother and father.
- She is a quiet child who rarely says anything and never laughs.

#### **Peggy**

• Peggy is the most popular girl in school and is confident and talented.

• Although she is the instigator of the teasing she is not really a mean girl, as she does not see the teasing as picking on Wanda

#### Maddie

- Maddie is Peggy's best friend and also teases Wanda but knows in her heart this is wrong.
- Unfortunately because she is not quite as popular as Wanda she is reluctant to speak up and say that the teasing is unkind.
- Maddie is also quite poor and wears hand-me-downs, many from Peggy, which her mother
  alters or embellishes with braid and ribbons to make sure nobody at school remembers seeing
  them before.

## **Extract Based Questions**

I. Today, Monday, Wanda Petronski was not in her seat. But nobody, not even Peggy and Madeline, the girls who started all the fun, noticed her absence. Usually, Wanda sat in the seat next to the last seat in the last row in Room Thirteen. She sat in the corner of the room where the rough boys who did not make good marks sat, the corner of the room where there was most scuffling of feet, most roars of laughter when anything funny was said, and most mud and dirt on the floor. Wanda did not sit there because she was rough and noisy. On the contrary, she was very quiet and rarely said anything at all. And nobody had ever heard her laugh out loud. Sometimes she twisted her mouth into a crooked sort of smile, but that was all.

- (a) Where did Wanda Petronski usually sit?
- (b) Did Peggy and Madeline notice Wanda's absence?
- (c) How did most of the boys create fun in the classroom?
- (d) What kind of a girl was Wanda?
- (e) Find words or phrases from the passage which mean the same as :
- (i) on the other hand, (ii) very seldom.

#### **Answers:**

- (a) She usually sat in the corner next to the last seat in the last row.
- (b) No, Peggy and Madeline did not notice Wanda's absence.
- (c) They created fun by scuffling their feet on the ground and laughing loudly.
- (d) Wanda was a quiet and calm girl.
- (e) (i) on the contrary, (ii) rarely.

II. Nobody knew exactly why Wanda sat in that seat unless it was because she came all the way from Boggins Heights and her feet were usually caked with dry mud. But no one really thought much about Wanda Petronski, once she sat in the corner of the room.

The time when they thought about Wanda was outside of school hours — at noon-time when they were coming back to school or in the morning early before school began, when groups of two or three, or even more, would be talking and laughing on their way to the school yard.

Then, sometimes, they waited for Wanda — to have fun with her.

#### **Questions:**

- (a) Where did Wanda come from?
- (b) What happened after Wanda sat in the corner of the room?
- (c) When did classmates think of Wanda?
- (d) Why did they wait for Wanda?
- (e) Find a word in the passage which means 'precise'.

#### **Answers:**

- (a) Wanda came from Boggins Heights.
- (b) After she sat in the corner of the room nobody thought much of her.
- (c) They thought of her outsides of school hours.
- (d) They waited for her to have fun with her.
- (e) exactly.

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

#### 1. How did Peggy and Maddie try to amend their behaviour towards Wanda?

**Ans**. Both Peggy and Maddie felt guilty for their behaviour towards Wanda. Maddie felt very sad to know that Wanda and her family were leaving the town. Both of them wrote a friendly letter to Wanda telling her that she had won the contest. They asked her if she liked the place where she was living. They wanted to say sorry to her.

## 2. Why was Maddie sure Peggy would win the dress designing contest?

**Ans**. Maddie was sure that Peggy would win the dress designing contest because according to her, and everyone in the class, Peggy was the best artist in class.

## 3. How did Peggy make fun of Wanda Petronski?

Ans. Peggy would wait to make fun of Wanda at school. She would most courteously ask her, how many dresses she had hanging in her closet. Wanda would reply that there were a hundred. Peggy would then ask about the dress material, and when Wanda walked away, would burst into laughter, sarcastically making fun of her.

## 4. What kind of girl was Wanda? Where did she usually sit in the class?

**Ans**. Wanda was a quiet girl who rarely laughed out loud. She didn't have any friend and always come to school, and went home alone. She usually sat in the corner of the room, where those who didn't get good marks sat, and which was the noisiest and dirtiest area in the room.

#### 5. How was Wanda treated at school?

**Ans**. Children made fun of Wanda because she had a funny name. And also because she came to school wearing the same faded blue dress although she claimed she had a hundred dresses—all of the different designs, colours and a variety of clothes—silk and velvet.

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

- 1. What did they think about Wanda and why? Wanda's classmates?
- 2. What did her classmates and Maddie think about Peggy?
- 3. Was Peggy really cruel? Why did she make fun of Wanda Petronski by asking questions about her dresses and shoes?
- 4. Did Wanda Petronski sit in that corner near the last row because she was rough and noisy?
- 5. Maddie wrote a note for Peggy but she tore it away. Why?

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

#### 1. Who were Peggy and Maddie? How did they and other girls make fun of Wanda?

Peggy and Maddie were the two classmates of Wanda. Peggy was the most popular girl in the school. She was pretty and had curly hair. She belonged to a rich family. She had many pretty clothes. Maddie was her closest friend. Peggy and Maddie were not bad girls but they used to have some fun with Wanda

Petronski. The students in Wanda's class found her name funny. Wanda was always alone in her class. Peggy made fun of Wanda and asked her how many dresses she had in her closet. Wanda replied that she had one hundred dresses. Then Peggy would ask her whether the dresses were of silk or velvet. Wanda would reply that she had dresses of velvet as well as silk. The girls would ask her how many pairs of shoes she had. At this Wanda would tell them that she had sixty pairs of shoes. The girls would suppress their laugh while talking to her. But as soon as Wanda's back was turned, they would burst into peals of laughter.

#### **Long Answer Type questions (unsolved)**

- 1. When did Peggy and Maddie notice Wanda's absence from school?
- 2. Describe the scene where Wanda's dress drawings are displayed? Who won the drawing contest for the girls?
- 3. What did Peggy and other girls think about Wanda Petronski? How was she different from other girls?

# POLITICAL SCIENCE

## Class -X

- Q1 Define political parties.
- Q2 list the components of political parties.
- Q3 Explain the functions of political parties.
- Q4 How do political parties shape public opinion?
- Q5 What is the role of opposition?
- Q6 Why political parties are necessary?
- Q7 Who is a Partisan?

## **VIDEO LINK:**

https://youtu.be/LQN-fRc521A

# **HISTORY**

#### Chapter -1

Worksheet

Write the answer of following questions not more than 30 words carry one mark.

- 1. Name the Italian revolutionary from Genoa
  - a. Metternich
  - b. Johanna Gottifried
  - c. Mazzini
  - d. None of these
- 2. Who proclaimed the king of united Italy in 1861?
- 4. Treaty of constantpole recognised ......as an independent nation .
- 5. The act of union of 1707 was between ...... and .....

- 6. Jacob club were the .......
- 7. when conservative regime were restored to power many liberal minded people went underground because of the fear of .....
- 8. .....allegory represent the nation of France.
- 9. Who was Frederick sorriue?
- 10. Who hoasted the treaty of Vienna?
- 11. Which new name was given to Estate General?
- 12. What does nation state mean?
- 13. What was the concept of modern state?
- 14. To which country did the artist Frederic Sorrieu belong?
- 15. Who was Giuspee Mazzini?
- 16. How did Metternich describe Mazzini?
- 17. What was romanticism?
- 18. Who were liberal nationalist?
- 19. Who was proclaimed German Emperor in a ceremony held at Versailles in January 1871?
- 20. Who was Ottovan Bismarck?

VIDEO LINK: https://www.youtube.com/watch?v=0PpeKobfpFU

## **GEOGRAPHY**

# **Chapter 6: Manufacturing Industries**

# **Questions**

- 1. Which one of the following cities has emerged as the 'electronic capital' of India?
  - (a)Delhi
  - (b)Kolkata
  - (c)Bengaluru
  - (d) Hyderabad
- 2. Which one of the following factors plays the most important role in the location of an industry in a particular region?
  - (a) Raw material.
  - (b) Market.
  - (c)Least production cost.
  - (d) Transport.
- 3. Which of the following industries is not a heavy industriy.
  - (a)Cotton textile.
  - (b) Iron & Steel.
  - (c) Ship building.
  - (d) Cement.

- <u>4.</u> Which one of the following industries manufactures telephones, computer, etc.?
  - a)Cement.
  - b)Iron & steel.
  - c)Electronic.
  - d) Chemical.
- <u>5.</u> Which one of the following public sector plants is located in Chhattisgarh?
  - a) Bokaro steel plant
  - b) Bhilai steel plant.
  - c) Rourkela steel plant.
- 6. Name any three agro based industry.
- 7. What are public sector industries.
- 8. Where was first textile mill setup in 1818 AD.
- 9. Name two factors on which aluminium industry is based.
- **10.** Define key industries with examples.
- **11.** Classify the industries on the basis of their ownership.(3)
- **12.** Describe the main features of chemical industy in India (5).
- 13. What factors are responsible for the location of jute industry in hugli basin? (5)

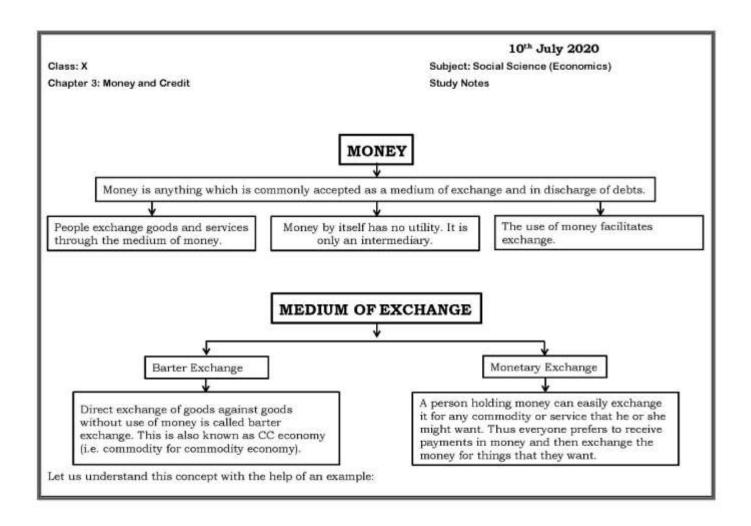
# **Activity:-**

- On an outline political map of india locate the cotton textile industries using (•) symbol.
  - a) Mumbai.
  - b) Indore.
  - c) Surat.
  - d) Kanpur.
  - e) Coimbatore.

# Video Link :-

https://www.youtube.com/watch?v=RTtsXBMtfhw&feature=youtu.be https://www.youtube.com/watch?v=yYMgIFvhB78&feature=youtu.be

#### **ECONOMICS**



There are three Sellers in the market: Shoe Seller Wheat Seller Potter Shoe manufacturer wants to sell shoes in the market and buy wheat. Monetary Exchange Barter Exchange Imagine how much more difficult it would be if The shoe manufacturer will first exchange shoes the shoe manufacturer had to directly exchange that he has produced for money, and then shoes for wheat without the use of money. exchange the money for wheat. He would have to look for a wheat growing farmer It is no longer necessary for the shoe manufacturer to look for a farmer who will buy who not only wants to sell wheat but also wants to buy the shoes in exchange. his shoes and at the same time sell him wheat. All he has to do is find a buyer for his shoes. That is, both parties have to agree to sell and buy each other's commodities. Once he has exchanged his shoes for money, he can purchase wheat or any other commodity in This is known as double coincidence of wants. the market. Thus everyone prefers to receive What a person desires to sell is exactly what the payments in money and then exchange the money other wishes to buy. for things that they want, In a barter system where goods are directly exchanged without the use of money, double coincidence of wants is an essential feature. Money acts as an intermediate in the exchange process, it is called a medium of exchange.

What is Barter System? [2015]	(1)	
Recognize the situation when both the parties in a barter economy have to	o agree to s	sell and buy each other's
commodities? What is it called? [SQP2016]	(1)	
Give any one example of the methods to make payment without using case	h. [2019]	(1)
Highlight the inherent problem in double coincidence of wants. [2017]	(1)	
) Give an example to show that double coincidence of wants is necessary in	a barter sys	stem. (3)
ideo Links		
ttps://www.youtube.com/watch?v=Ws5QpLEw1XU&t=307s		
ttps://www.youtube.com/watch?v_yn-aDG4hTDE		

# **BIOLOGY**

Assignment
Topic : How do organisms reproduce (1)
Class X

- 1. What are the different modes of asexual reproduction?
- 2. How does binary fission differs from multiple fission?
- 3. How will an organism be benefited if it reproduces through spores?
- 4. Why is vegetative propagation practised for vowing same types of plants?
- 5. Compare budding and fission with examples.
- 6. Why do the complex organisms does not show regeneration?
- 7. Distinguish between asexual and sexual mode of reproduction. VIDEO LINKS:

https://www.youtube.com/watch?v=ZdCwg-oAUsM&list=PLCzaIJYXP5YfsTNjAKUnj3WYR-MmfbHbX&index=2

https://www.youtube.com/watch?v=JID5SY\_QmR4&list=PLCzalJYXP5YfsTNjAKUnj3WYR-MmfbHbX&index=5

## CHEMISTRY ASSIGNMENT 1 JULY

- 1. Define the terms:
  - (i) mineral
  - (ii) ore, (iii) gangue
  - (i) Mineral: It is a naturally occurring substance from which metal may or may not be extracted profitably or economically, e.g. A1 cannot be extracted profitably from mica.
  - (ii) Ore: It is a rocky material which contains sufficient quantity of mineral so that metal can be extracted profitably, e.g. zinc blende is an ore of zinc from which zinc can be extracted profitably.
  - (iii) Gangue: It is a rocky material which is present along with the mineral in the ore, e.g. FeO is gangue in extraction of copper.
- 2. An ore on heating in air produces sulphur dioxide. Which process would you suggest for its concentration? Describe briefly any two steps involved in the conversion of this concentrated ore into related metal. Answer. It is concentrated by froth-floatation process.
  - (i) Roasting: The concentrated sulphide ore is heated strongly in the

$$2ZnS(s) + 3O_2(g) \longrightarrow 2ZnO(s) + 2SO_2(g)$$

presence of oxygen to convert it into its oxide.

(ii) Reduction: This oxide of metal is reduced with suitable reducing agent to get free metal.

$$ZnO(s) + C(s) \xrightarrow{heat} Zn(s) + CO(g)$$

- 3. (a) An ore on treatment with dilute hydrochloric acid produces brisk effervesces. What type of ore is this? What steps will be required to obtain metal from the enriched ore.,
  - (b) Copper coin is kept immersed in silver nitrate solution for some time. What change will take place in coin and colour of the solution? Write balanced chemical equation of the reaction involved. Answer.
  - (a) Carbonate ore:
  - (i) **Calcination:** Carbonate ore is heated in limited supply of air and oxide is obtained, e.g.

$$ZnCO_3$$
 (s)  $\xrightarrow{heat}$   $ZnO$  (s) +  $CO_2$  (g)

(ii) Reduction with carbon: Oxide ore is heated with carbon

$$ZnO(s) + C(s) \longrightarrow Zn(s) + CO(g)$$

(a) Copper, being more reactive than silver will displace silver from silver nitrate solution and there will be deposition of silver on copper coin. The colour of solution will turn to blue.

$$Cu(s) + 2AgNO_3(aq) \longrightarrow Cu(NO_3)_2(aq) + 2Ag(s)$$

VIDEO LINK: <a href="https://www.youtube.com/watch?v=0GEq2TiUF8Y&authuser=0">https://www.youtube.com/watch?v=0GEq2TiUF8Y&authuser=0</a>

# **PHYSICS**

# ASSIGNMENT-ELECTRICTY-CLASS-X

# **Video**

https://v	youtu.be/IDQ	YakHRAG8
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olink- //youtu	ı.be/IDQYakHRAG8								
1. Two	o charged batteries A and B respectively and they are current	_	potential $-30$ and $+20$ V ed by a connecting wire. The						
	Will flow from A to B Will not flow at all	(ii)	Will flow from B to A						
2. The	2. The work done in moving a positive charge across two points in ar electric circuit is a measure of								
	Current Resistance	. ,	Potential difference Power						
3. 1 c	oulomb =ele	ctrons							
(i) (iii)	$1.6 \times 10^{-19}$ $6.25 \times 10^{-18}$		$9.1 \times 10^{-31}$ None of these						
4. The	unit of specific resistance is								
(i) (iii)	Ohm metre Volt	(ii) (iv)	Ohm Ampere						
5. Mos	st metals are good conductors	of elec	tricity because they have						
	Large number of molecule Large number of free electron A shiny surface A low temperature								
6. A w	vire is cut into half. Its resisti	vity							
(i) (ii) (iii) (iv) 7. 1 vo	(i) Also becomes half (ii) Becomes double (iii) Remains same								
<i>(i)</i>	1 coulomb per joule	(ii)	1 joule						
(iii)	1 joule per coulomb	(iv)	1 ampere						
8. In a	resistance box the resistance	es are c	onnected in						
(i) (iii)	Series Neither of two	(ii) (iv)	Parallel Both (i) and (ii)						
9. For	ohmic resistors, the graph b	etweer	v and I is						

- (i) Parabolic (ii) Hyperbolic
- (iii) Circular (iv) Straight line
- 10. A rheostat is used
- (i) To bring a known change of the resistance in the circuit to alter the current
- (ii) To continuously change the resistance in any arbitrary manner and there by alter the current.
- (iii) To make or break the circuit at any instant.
- (iv) Neither to alter the current nor the resistance.

# **COMPUTER**

# COMPUTER ASSIGNMENT Spreadsheet

#### Session 1

#### Q1. See the below mentioned tabular data and write formula for the following:

	Α	В	С	D	E
1	S.No.	Head of	Expenditure	Limit Specified	Over/Less
		Expenses	Done		Expenditure
2	01	Children School	4800	5000	
		Fee			
3	02	Transportation	2000	1800	
4	03	Grocery	5000	3500	
5	04	Internet/Cable	650	500	
		TV			
6	05	Mobile Bill	1000	500	
7	·				

- (i) Write formula in C7 to find total expenditure done by Ramesh on the basis of above table.
- (ii) Write formula in E2 to calculate over/less expenditure.
- Q2. Below a snapshot is given of a spreadsheet. Write formulas based on the points cited below:

∰ Book1														
	Α	В	С	D	E	F	G	Н	1	J	K	L	M	N
1	RollNO	Name	English	Maths	Hindi	Science	SST	IT	Total	Average	Max	Min	Grade	
2	1	Aman	77	78	79	80	81	82						
3	2	Akhil	83	84	85	86	87	88						
4	3	Raman	89	90	91	92	93	94						
5	4	Anita	95	96	97	98	99	100						
6	5	Sunita	75	76	77	78	79	80						
7	6	Rajan	81	82	83	84	85	86						
8	7	Rajeev	87	88	89	90	91	92						
9	8	Bharat	65	66	67	68	69	70						
10	9	Digvijay	55	56	57	58	59	60						
11	10	Anil	61	62	63	64	65	66						
12	·	Max												
13		Min												
14 15														
15														

- a) Calculate the total marks of each student
- b) Calculate the average marks of each student
- c) Calculate the maximum marks of each student
- d) Calculate the minimum marks of each student
- e) Calculate the maximum marks in each subject
- f) Calculate the minimum marks in each subject.
- g) Calculate grade of each student

Grade	Marks
A+	Greater than equal to 90
A1	Between 80 and 90
A2	Between 70 and 80
B+	Between 60 and 70
B1	Between 50 and 60
B2	Between 40 and 50
C1	Between 30 and 40

	Q3. Fill in the Blanks			
	1electronic spreadshee		mulas is one of the mos	t powerful features of
	writing the formula.		values given in cells aut	•
			group under alues around the ce	the Home tab. ells eitheror
S	Session 2			
C	Q1. What is conditional fo	rmatting?		
s i	Ans: Conditional formattinhading) of the cells based not the cell, and if the cells hanges.	on the values in it. In	this, we specify a cond	ition for the values
F	Q2. What are various form formatting? Ans: You can Number format Font, font style, and for	control the following fo	_	
	<ul> <li>font size) Fill colour and</li> </ul>	fill pattern		
	<ul> <li>Border colour and bord</li> </ul>	er style (but not border	thickness)	
	23. <b>Fill in the blanks</b> cor	nditional formatting allo	ows you to change the fo	rmatting (font color
k 2	oorder, shading) of the cel 2. Conditional formatting i	ls based on the values i s available under	n it.	
Но	me tab. Q1. Multiple Cho	ice Questions:		
1. a)	What is the intersection Column	of row and column on a b) Address	a worksheet called? c) Value	d) Cell
2.	Formulas in Excel start v a) % b)		c) +	d) —
3.	Which of the following r a) Pressing the Esc key	nethods will not enter o	b) Pressin	ng an arrow key
	c) Pressing the tab key to the formula bar		a) Clickinį	g the enter button
4.	The cell reference for ce a) G2.M12	ll range of G2 to M12 is b) G2;M12	c) G2:M1	2 d) G2-M12
5.	Which of the following is a) 10 b)	s not a valid Zoom perce 100	entage in Excel? c) 300	d) 500

6. The spelling tool is placed on_	toolbar		
a) Standard	b) Formatting	c) Drawing	d) Reviewing
Video links			

https://www.youtube.com/playlist?list=PL0-louY0kSl5CpsFuurbYGeboGUXCkdiL

# Chapter 2 Polynomials

#### **Key Points**

- Polynomial: If x is a variable, n is a natural number and a0, a1, a2, a3, ... an are real numbers then p(x) = a<sub>n</sub>.x<sup>n</sup> + a<sub>n-1</sub>.x<sup>n-1</sup> + .... + a<sub>1</sub>x + a<sub>0</sub>, (a<sub>n</sub> ≠ 0) is called a polynomial in x.
- Polynomials of degree 1, 2 and 3 are called linear, quadratic and cubic polynomials respectively.
- A quadratic polynomial is an algebraic expression of the form ax<sup>2</sup> + bx + c, where a, b, c are real numbers with a ≠ 0.
- Zeroes of a polynomial p(x) are precisely the x-coordinates of the points where the graph of y = p(x) intersects the x-axis, i.e., x = a is a zero of polynomial p(x) if p(a) = 0.
- A polynomial can have at most the same number of zeroes as the degree of the polynomial.
- If one zero of a quadratic polynomial p(x) is negative of the other, then co-efficient of x = 0.
- If zeroes of a quadratic polynomial p(x) are reciprocal of each other, then co-efficient
  of x<sup>2</sup>= constant term.
- Relationship between zeroes and coefficient of a polynomial: If  $\alpha$  and  $\beta$  are zeroes of  $p(x) = \alpha x^2 + bx + c \ (\alpha \neq 0)$ , then

sum of zeroes:  $\alpha + \beta = -\frac{b}{a}$ Product of zeroes:  $\alpha\beta = \frac{c}{a}$ 

- If a, b are zeroes of a quadratic polynomial p(x), then
   p(x) = k[x²- (sum of zeroes).x + product of zeroes]
   p(x) = k[x²- (α + β)x + αβ], where k is any non-zero real number?
- Graph of linear polynomial p(x) = ax + b is a straight line.
- Division Algorithm states that given any polynomials p(x) and g(x), there exist polynomials q(x) and r(x) such that:

 $p(x) = g(x) \cdot q(x) + r(x); g(x) \neq 0,$ [where either r(x) = 0 or degree r(x) < degree g(x)]

#### VERY SHORT ANSWER TYPE QUESTIONS

- What will be the number of zeroes of a linear polynomial p(x) if its graph?
  - a) passes through the origin.
  - b) doesn't intersect or touch x-axis at any point?
- Find the quadratic polynomial whose zeroes are (5+2√3) and (5 2√3)
- 3. If one zero of  $p(x) = 4x^2 (8k^2 40k)x 9$  is negative of the other, find values of k.
- What number should be added to the polynomial x<sup>2</sup> 5x + 4, so that 3 is a zero of polynomial so obtained.
- How many
  - a) maximum
  - b) minimum number of zeroes can a quadratic polynomial have?
- What will be the number of real zeroes of the polynomial x<sup>2</sup>+1?
- 7. If  $\alpha$  and  $\beta$  are zeroes of polynomial  $6x^2$  7x 3, then form a quadratic polynomial whose zeroes are  $2\alpha$  and  $2\beta$ .
- 8. If a and  $\frac{1}{x}$  are zeroes of  $4x^2 17x + k 4$ , find values of k.
- 9. What will be the number of zeroes of the polynomials whose graphs are parallel to
  - a) y-axis
  - b) x-axis.
- What will be number of zeroes of the polynomial whose graphs are either touching or intersecting the axes only at the points
  - a) (-3, 0) (0, 2) and (3, 0)

b) (0, 4), (0, 0) and (0, -4)

#### SHORT ANSWER TYPE (I) QUESTIONS

- If -3 is one of the zeroes of the polynomial (k 1)x² + kx + 1, find the value of k.
- 12. If the product of zeroes of  $ax^2 6x 6$  is 4 Find the value of a. Hence find the sum of its zeroes.
- 13. If  $\alpha$  and  $\beta$  are zeroes of the polynomial  $x^2 \alpha(x+1) b$  such that  $(\alpha + 1)(\beta + 1) = 0$ , find the value of b.
- 14. If zeroes of  $x^2 kx + 6$  are in the ratio 3:2, find k.
- If one zero of the quadratic polynomials (k² + k)x² + 68x + 6k is reciprocal of the other,
- 16. If  $\alpha$  and  $\beta$  are the zeroes of the polynomial  $x^2 5x + m$  such that  $\alpha \beta = 1$ , find m
- 17. If the sum of squares of zeroes of the polynomial x = 0x + k is 70, and 60.

  18. If  $\alpha$  and  $\beta$  are zeroes of the polynomial  $t^2 t 4$ , form a quadratic polynomial whose zeroes are  $\frac{1}{\alpha}$  and  $\frac{1}{\beta}$
- 19. If (k + y) is a factor of each of the polynomial  $y^2 + 2y 15$  and  $y^3 + a$ , find values of k and
- 20. Obtain zeroes of  $4\sqrt{3}x^2 + 5x 2\sqrt{3}$  and verify relation between its zeroes and coefficients.
- 21. If  $x^4 + 2x^3 + 8x^2 + 12x + 18$  is divided by  $(x^2 + 5)$ , remainder comes out to be (px + q), find values of p and q.
- 22. -5 is one of the zeroes of  $2x^2 + px 15$ . Zeroes of  $p(x^2 + x) + k$  are equal to each other. Find the values of k.
- 23. Find the value of k such that  $3x^2 + 2kx + x k 5$  has the sum of zeroes as half of their product.
- 24. If  $\alpha$  and  $\beta$  are zeroes of  $y^2 + 5y + m$ , find the value of m such that  $(\alpha + \beta)^2 \alpha\beta = 24$
- 25. If  $\alpha$  and  $\beta$  are zeroes of  $x^2 x 2$ , find a polynomial whose zeroes are  $(2\alpha + 1)$  and  $(2\beta + 1)$
- 26. Find values of a and b so that  $x^4 + x^3 + 8x^2 + ax + b$  is divisible by  $x^2 + 1$ .
- 27. What must be subtracted from  $8x^4 + 14x^3 2x^2 + 7x 8$  so that the resulting polynomial is exactly divisible by  $4x^2 + 3x - 2$ ?
- 28. What must be added to  $4x^4 + 2x^3 2x^2 + x 1$  so that the resulting polynomial is divisible by  $x^2 - 2x - 3$ ?

#### LONG ANSWER TYPE QUESTIONS

- Find all zeroes of the polynomial  $2x^3 + x^2 6x 3$  if two of its zeroes are  $\sqrt{3}$  and  $-\sqrt{3}$ 29.
- If  $\sqrt{2}$  is zero of  $(6x^3 + \sqrt{2}x^2 10x 4\sqrt{2})$ , find its other zeroes.
- If two zeroes of  $x^4 6x^3 26x^2 + 138x 35$  are  $(2 \pm \sqrt{3})$ , find other zeroes. 31.
- On dividing the polynomial  $x^3 5x^2 + 6x 4$  by a polynomial g(x), quotient and 32. remainder are (x-3) and (-3x+5) respectively. Find g(x).
- If sum and product of two zeroes of the polynomial  $x^3 + x^2 3x 3$  are 0 and 3 33. respectively, find all zeroes of the polynomial.
- If  $-\frac{1}{2}$  is a zero of the polynomial  $2x^3 + x^2 6x 3$ , find the sum and product of its other 34. two zeroes.
- Obtain all zeroes of the polynomial  $2x^4 x^3 7x^2 + 3x + 6$  if two factors of this 35. polynomials are  $\left(x \pm \sqrt{\frac{3}{2}}\right)$
- Sum and product of two zeroes of  $x^4-4x^3-8x^2+36x-9$  are 0 and -9 respectively. Find 36. the sum and product of its other two zeroes.
- A person distributes k books to some needy students. If k is a zero of the polynomial 37.  $x^2 - 100x - 20000$  then find the number of books distributed
- One zero of  $x^3 12x^2 + 47x 60$  is 3 and the remaining two zeroes are the number of trees planted by two students. Find the total number of trees planted by both students.

#### **ANSWERS**

2. 
$$x^2 - 10x + 13$$

$$3. k = 0.5$$

$$7.3x^2 - 7x - 6$$

$$8. k = 8$$

11. 
$$\frac{4}{3}$$

12. 
$$a = -\frac{3}{2}$$
, sum of zeroes – 4

18. 
$$4t^2 + t - 1$$

19. 
$$k = 3, -5$$
 and  $a =$ 

$$20. -\frac{2}{\sqrt{3}}, \frac{\sqrt{3}}{4}$$

$$20. -\frac{2}{\sqrt{3}}, \frac{\sqrt{2}}{4}$$

$$21.p = 2,q = 3$$

22. 
$$\frac{7}{4}$$

25. 
$$x^2 - 4x - 5$$

$$26. a = 1, b = 7 27. 14x - 10$$

29. 
$$\sqrt{3}$$
,  $-\sqrt{3}$ ,  $-\frac{1}{2}$ 

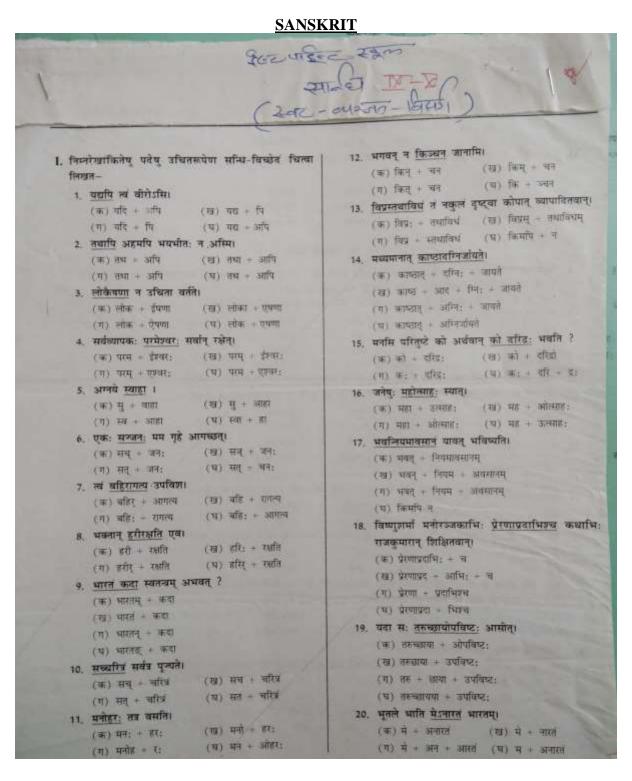
$$30. -\frac{\sqrt{2}}{2}, -\frac{2\sqrt{2}}{3}$$

32. 
$$x^2 - 2x + 3$$
 33.  $\sqrt{3}$ ,  $-\sqrt{3}$ ,  $-1$ 

35. 2, -1, 
$$\pm \sqrt{\frac{3}{2}}$$

37. 200

38.9



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

#### **HINDI**

मनुष्यता कविता का भावार्थ — Manushyata Class 10 Explanation विचार लो कि मर्त्य हो न मृत्यु से डरो कभी, मरो, परंतु यों मरो कि याद जो करें सभी। हुई न यों सुमृत्यु तो वृथा मरे, वृथा जिए, मरा नहीं वही कि जो जिया न आपके लिए। वही पशु प्रवृत्ति है कि आप आप ही चरे, वही मनुष्य है कि जो मनुष्य के लिए मरे॥

मनुष्यता कविता का भावार्थ : प्रस्तुत पंक्तियों में कवि मैथिलीशरण गुप्त जी ने हमें मनुष्यता के लक्षणों से अवगत कराया है। साथ ही, उन्होंने हमें इस सत्य से भी अवगत कराया है कि मनुष्य अमर नहीं है। मनुष्य मरणशील है, इस बात को हमें स्वीकार करना चाहिए, तभी हमारे अंदर से मृत्यु का भय दूर होगा। कवि के अनुसार मनुष्य कहलाने का अधिकार उसी को है, जो दूसरे के हित तथा दूसरों की ख़ुशी के लिए जीता और मरता है। ऐसे मनुष्य को मृत्यु के बाद भी उसके अच्छे कर्मों के लिए युगों-युगों तक याद किया जाता है, इस प्रकार परोपकारी मनुष्य मर कर भी दुनिया में अमर हो जाता है।

जबिक स्वार्थी मनुष्य केवल अपना भला व स्वार्थ सोचते हैं और खुद के लिए जीते हैं। ऐसे लोगों के मर जाने पर उन्हें कोई याद नहीं रखता। किव के अनुसार ऐसे मनुष्यों एवं पशुओं में कोई अंतर नहीं होता है, क्योंकि पशु भी दूसरों के बारे में सोचे बिना केवल अपने हित के बारे में सोचते हैं और वैसे ही जीवन-यापन करते हैं।

#### अवगत- परिचित

उसी उदार की कथा सरस्वती बखानती, उसी उदार से धरा कृतार्थ भाव मानती। उसी उदार की सदा सजीव कीर्ति कूजती, तथा उसी उदार को समस्त सृष्टि पूजती।

अखंड आत्म भाव जो असीम विश्व में भरे, वहीं मनुष्य है कि जो मनुष्य के लिए मरे।

मनुष्यता कविता का भावार्थ : प्रस्तुत पंक्तियों में कवि ने दानी एवं उदार व्यक्ति का गुणगान किया है। मैथिलीशरण गुप्त जी के अनुसार जो मनुष्य दानी एवं उदार होते हैं और इस विश्व में एकता तथा अखंडता का भाव फैलाते हैं, उन्हें सदैव याद किया जाता है एवं उनका गुणगान किया जाता है। ऐसे व्यक्तियों के नाम इतिहास की पुस्तकों में स्वर्णिम अक्षरों से लिखे जाते हैं। स्वयं सरस्वती माता उनकी कीर्ति का बखान करती हैं एवं धरती ख़ुद उनकी उदारता का ऋण मानती है।

सारा संसार ऐसे उदार, परोपकरि और दानी मनुष्य की पूजा करता है। ऐसे मनुष्य ही विश्व में आत्मीयता का भाव भरते हैं। अंत में कवि कहते हैं कि सच्चे अर्थों में मनुष्य वही है, जो हमेशा दूसरे मनुष्य का भला सोचता है और उसके भले के लिए मर भी सकता है।

क्षुधार्त रतिदेव ने दिया करस्थ थाल भी, तथा दधीचि ने दिया परार्थ अस्थिजाल भी। उशीनर क्षितीश ने स्वमांस दान भी किया, सहर्ष वीर कर्ण ने शरीर चर्म भी दिया। अनित्य देह के लिए अनादि जीव क्या डरे? वहीं मनुष्य है कि जो मनुष्य के लिए मरे॥

मनुष्यता कविता का भावार्थ : प्रस्तुत पंक्तियों में कवि ने पौराणिक कथाओं का उदाहरण देते हुए हमें यह बताया है कि ऐसे बहुत से क़िस्से हैं, जिनमें हमें दानी व्यक्तियों का गुणगान मिलता है। इन पंक्तियों में मैथिलीशरण गुप्त जी ने हमें कई उदाहरण दिए हैं। भूख से व्याकुल रतिदेव ने अपने हाथ में खाने की थाली भी दान में दे दी थी। वहीं दधीचि ऋषि ने असुरों से रक्षा के लिए देवताओं को अपनी हड्डियाँ दान कर दी थी। महर्षि दधीचि की हड्डियों से ही देवताओं ने वज्र (एक प्रकार का दैवीय अस्त) बनाकर असुरों का संहार किया। फिर एक कबूतर की रक्षा करने के लिए गांधार देश के राजा ने अपने शरीर का मांस काट कर दान में दे दिया था।

यहाँ तक कि दान मांगे जाने पर वीर कर्ण ने अपने शरीर से लगे हुए रक्षा-कवच तक को दान कर दिया था। इसीलिए कवि कहते हैं कि आत्मा तो अमर है, फिर दूसरों की भलाई के लिए शरीर को जोख़िम में डालने से क्या डरना। अपने जीवन का उपयोग दूसरे मनुष्यों के अच्छे के लिए करने पर ही तो हम मनुष्य कहलाने के लायक हैं।

## निम्नलिखित प्रश्नों के उत्तर दीजिए-

प्रश्न 1

कवि ने कैसी मृत्यु को सुमृत्यु कहा है?

उत्तर-

जिस मनुष्य में अपने और अपनों के हित-चिंतन से पहले और सर्वोपरि दूसरों का हित चिंतन होता है और उसमें वे गुण हों, जिनके कारण कोई मनुष्य मृत्युलोक से गमन कर जाने के बावजूद युगों तक दुनिया की यादों में बना रहे, | ऐसे मनुष्य की मृत्यु को ही कवि ने सुमृत्यु कहा है।

प्रश्न 2.उदार व्यक्ति की पहचान कैसे हो सकती है?

उत्तर-

उदार व्यक्ति की पहचान यह है कि वह इस असीम संसार में आत्मीयता का भाव भरता है। सभी प्राणियों के साथ अपनेपन का व्यवहार करता है, नित्य परोपकार के कार्य करता है, जिसके हृदय में दूसरों के प्रति सहानुभूति और करुणा का भाव होता है। उदार व्यक्ति दूसरों की सहायता के लिए अपने तन, मन और धन को किसी भी क्षण त्याग सकता है, जो दूसरों की प्राणरक्षा के लिए अपना सर्वस्व न्योछावर करने को तत्पर रहता है। वह जाति, देश, रंग-रूप आदि का भेद किए बिना सभी को अपना मानता है। वह स्वयं हानि उठाकर भी दूसरों का हित करता है। प्रेम, भाईचारा और उदारता ही उसकी पहचान है।

प्रश्न 3.कवि ने दधीचि, कर्ण आदि महान व्यक्तियों का उदाहरण देकर 'मनुष्यता' के लिए क्या संदेश दिया है? उत्तर-

किव ने दधीचि, कर्ण आदि महान व्यक्तियों का उदाहरण देकर मनुष्यता के लिए यह संदेश दिया है कि प्रत्येक मनुष्य को परोपकार करते हुए अपना सर्वस्व त्यागने से कभी पीछे नहीं हटना चाहिए। इन व्यक्तियों ने दूसरों की भलाई हेतु अपना सर्वस्व दान कर दिया था। दधीचि ने अपनी अस्थियों का तथा कर्ण ने कुंडल और कवच का दान कर दिया था। हमारा शरीर नश्वर है इसलिए इससे मोह को त्याग कर दूसरों के हित-चिंतन में लगा देने में ही इसकी सार्थकता है। यही किव ने संदेश दिया है। प्रश्न 4.किव ने किन पंक्तियों में यह व्यक्त किया है कि हमें गर्व-रहित जीवन व्यतीत करना चाहिए?

उत्तर-

किव ने दधीचि, कर्ण आदि महान व्यक्तियों का उदाहरण देकर सारी मनुष्यता को त्याग और बिलदान का संदेश दिया है। अपने लिए तो सभी जीते हैं पर जो परोपकार के लिए जीता और मरता है उसका जीवन धन्य हो जाता है। पौराणिक कथाओं के अनुसार दधीचि ऋषि ने वृत्रासुर से देवताओं की रक्षा करने के लिए अपनी अस्थियों तक का दान कर दिया। इसी प्रकार कर्ण ने अपने जीवन-रक्षक, कवच-कुंडल को अपने शरीर से अलग करके दान में दिया था। रंतिदेव नामक दानी राजा ने भूख से व्याकुल ब्राह्मण को अपने हिस्से का भोजन दे दिया था। राजा शिवि ने कबूतर के प्राणों की रक्षा हेतु अपने शरीर का मांस काटकर दे दिया। ये कथाएँ हमें परोपकार का संदेश देती हैं। ऐसे महान लोगों के त्याग के कारण ही मनुष्य जाति का कल्याण संभव हो सकता है। किव के अनुसार मनुष्य को इस नश्वर शरीर के लिए मोह का त्याग कर देना चाहिए। उसे केवल परोपकार करना चाहिए। वास्तव में सच्चा मनुष्य वही होता है, जो दूसरे मनुष्य के लिए अपना सर्वस्व न्योछावर कर दे।

प्रश्न 5. 'मनुष्य मात्र बंधु है' से आप क्या समझते हैं? स्पष्ट कीजिए।

इस कथन का अर्थ है कि संसार के सभी मनुष्य आपस में भाई-भाई हैं इसलिए हमें किसी से भी भेद-भाव नहीं करना। चाहिए। सभी एक ईश्वर की ही संतान हैं। अगर कुछ भेद दिखाई देते भी हैं, तो वे सभी बाहरी भेद हैं और वे भी अपने-अपने कर्मों के अनुसार दिखाई पड़ते हैं। मनुष्य मात्र बंधु हैं इसलिए 'वसुधैव कुटुम्बकम्' का नारा बुलंद किया जाता है। प्रत्येक मनुष्य को हर निर्बल मनुष्य की पीड़ा दूर करने का प्रयास करना चाहिए। सभी आपस में भाई-चारे की भावना से रहें तथा सभी में प्रेम एवं एकता का संचार हो।

प्रश्न 6.कवि ने सबको एक होकर चलने की प्रेरणा क्यों दी है? उत्तर-

किव ने सबको एक होकर चलने की प्रेरणा इसलिए दी है क्योंकि इससे आपसी मेल-भाव बढ़ता है तथा हमारे सभी काम सफल हो जाते हैं। यदि हम सभी एक होकर चलेंगे तो जीवन मार्ग में आने वाली हर विघ्न-बाधा पर विजय पा लेंगे। जब सबके द्वारा एक साथ प्रयास किया जाता है तो वह सार्थक सिद्ध होता है। सबके हित में ही हर एक का हित निहित होता है। आपस में एक-दूसरे का सहारा बनकर आगे बढ़ने से प्रेम व सहानुभूति के संबंध बनते हैं तथा परस्पर शत्रुता एवं भिन्नता दूर होती है। इससे मनुष्यता को बल मिलता है। किव के अनुसार यदि हम एक-दूसरे का साथ देंगे तो, हम प्रगति के पथ पर अग्रसर हो सकेंगे।

प्रश्न ७.व्यक्ति को किस प्रकार का जीवन व्यतीत करना चाहिए? इस कविता के आधार पर लिखिए। उत्तर-

व्यक्ति को सदा दूसरों की भलाई करते हुए, मनुष्य मात्र को बंधु मानते हुए तथा दूसरों के हित-चिंतन के लिए अपना सर्वस्व त्यागकर अपना जीवन व्यतीत करना चाहिए। इसके अतिरिक्त उसे अपने अभीष्ट मार्ग की ओर निरंतर सहर्ष बढ़ते रहना चाहिए।

प्रश्न 8. 'मनुष्यता' कविता के माध्यम से कवि क्या संदेश देना चाहता है? उत्तर-

मानव जीवन एक विशिष्ट जीवन है क्योंकि मनुष्य के मन में प्रेम, त्याग, बलिदान, परोपकार का भाव होता है। अपने से पहले दूसरों की चिंता करते हुए अपनी शक्ति, अपनी बुधि और अपनी वैचारिक शक्ति का सदुपयोग करना मानव का कर्तव्य है। प्रस्तुत कविता के माध्यम से कवि मानवीय एकता, सहानुभूति, सद्भाव, उदारता और करुणा का संदेश देना चाहता है। वह चाहता है कि मनुष्य समस्त संसार में अपनत्व की अनुभूति करे। वह दीन-दुखियों, जरूरतमंदों के लिए बड़े से बड़ा त्याग करने के लिए तैयार रहे। वह पौराणिक कथाओं के माध्यम से विभिन्न महापुरुषों जैसे दधीचि, कर्ण, रंतिदेव के अतुलनीय त्याग से प्रेरणा ले। ऐसे सत्कर्म करे जिससे मृत्यु उपरांत भी लोग उसे याद करें। उसका यश रूपी शरीर सदैव जीवित रहे। निःस्वार्थ भाव से जीवन जीना, दूसरों के काम आना व स्वयं ऊँचा उठने के साथ-साथ दूसरों को भी ऊँचा उठाना ही मनुष्यता' का वास्तविक अर्थ है।

VIDEO LINK: https://youtu.be/9aCjE7f2f50