

AVB PUBLIC SCHOOL



SUMMER BREAK ASSIGNMENT (2023-2024) CLASS X

ENGLISH

Q1. Read the following excerpt from the diary of a 13 year old girl Zlata Fillipovic who writes about the horrors of war in Sarajevo in her book 'Zlata's Diary'.

14 April. People are leaving Sarajevo. They're crowding the airport, train and bus stations. Families and friends are separating. It's so sad. These people and children aren't guilty of anything. I don't think Mummy and Daddy know whether to stay or go. Neither way is good.

2 May. Today was the worst ever. The shooting started around noon. Mummy, Daddy and I took Cicko, my canary, and we all ran to the cellar. It's ugly, dark and smelly. We listened to the pounding shells, the thundering noise overhead. Then I realized that this awful cellar was the only place that could save our lives. We heard glass shattering in our street. I put my fingers in my ears to block out the terrible sounds. This has been the worst day in my 11-year-old life.

5 May. We've rearranged the apartment. Our bedrooms are too dangerous. They face the hills, which is where they're shooting from. We sleep on mattresses on the floor on the sitting room. It's awful, but it's safer. Although once the shooting starts, no place is safe but the cellar.

7 May. Today a shell fell in front of our house in the park where I used to play with my girl-friends. A lot of people were hurt, and my friend Nina was killed. A piece of shrapnel lodged in her brain. She was such a nice girl -the victim of a stupid war. I cry and wonder why. She didn't do anything. Nina, I'll always remember you.

27 May. Two shells exploded in the street and one in the market. Mummy was nearby at the time, and Daddy and I were worried because she hadn't come home. We kept going to the window hoping to see her. Is she alive?

As you have read the above conversations, complete the following statements.

1. The first sign of approaching war was

.....

2. The family went into the cellar when

.....

3. The 'awful cellar' was the only place that could save their lives because

.....

4. Zlata's friend, Nina died when

.....

5. Zlata and her father were worried about her mother's safety because

.....

Q2. As the narrator, write an article on the lesson of love, faith and trust that you have learnt from the two young boys of Verona.

Q3. Our self-image is often based on what others make us believe we are. A poor self-image can do irreparable damage to us. Do you agree with this statement? Elaborate with suitable reasons and examples.

Q4. Complete the given worksheet.

1 Rearrange the following words or phrases to make meaningful sentences:

1. That life began/centuries ago / scientists think / twenty million/on earth/about
2. endless process/the plants and animals/of evolution/ are the products/of an
3. are/their/animals/products of all the/ environment
4. lose /habitat/human/ due to their the animals /encroachment
5. the/ habitat/regrowth rate of/is/very slow/of
6. is the/ all the/ in which the shopkeeper/this/keeps/wooden box/cash
7. a good exercise/it is/ facial muscles/for toning/up
8. gives us joy of friends/in making/a lot / laughter/and helps
9. man/police have/committed the/theft last/who/night/caught the
10. the depressed/laughter/soul/relieves/ and /amuses

Q2. There is an error in each of the following lines. Write the incorrect word and the correct word in the given space.

1. William Wordsworth is born in 1770 and _____
2. helped developed a new literary movement _____
3. called Romanticism, which saw a new focus in _____
4. Nature and emotion. Famous penning the _____
5. Words "I wandered lonely like a cloud." _____
6. Wordsworth is the most strongly associate with _____
7. the lake District region on England, the beautiful _____
8. landscape of which was an big inspiration for him. _____
9. Wordsworth was Poet Laureate for 1843 until he died. _____

Q3. Read the given conversation below and complete the passage that follows:

1. Garima: So, after a decade in the industry, are you truly 'satisfied'?
Karan: I love the film industry. It has its flaws though.
Garima: What do you mean by this statement?
Karan: We are a bunch of competitive, ambitious, sometimes petty people. But the passion cements us together.

Garima asked Karan if after a decade in the industry (a) -----Karan told her (b) -----although it had its flaws. Garima then enquired (c)----Karan explained that they were a bunch of competitive, ambitious, sometimes petty people but the passion cemented them together.

2. Marie: Did you see my new umbrella? Isn't it fine?

Tony: Yes, it is! Did you buy it from the mall?

Marie: No, your father has brought it for me.

Marie asked her son Tony (a)----- and she wanted to know whether it was a fine one. Tony agreed and asked his mother (b)----- His mother replied in the negative and added that (c)-----.

Q 4. Fill in the blanks with the correct form of the verbs given in brackets.

- 1) Besides encountering the strange aborigines, the first English settlers (find) themselves in the presence of new and wide variations of climate. In their old home, they (accustom) to a moderate temperature. Now they (have) before them a great range of climate from the cold coasts of Maine to the hot savannahs of Georgia, with all the gradations from the far North to the deep South. To the exigencies of these variations, all the immigrants, from the British Isles as well as the Continent, ____ (have) to adapt themselves. Wherever the colonists set to work, they (brave) hostile weather conditions.
- 2) My little sister is very naughty. When she _____ (come) back from school yesterday, she had _____ (tear) her dress. We _____ (ask) her how it had _____ (happen). She _____ (say) she _____ (have, quarrel) with a boy. She _____ (have, beat) him in a race and he _____ (have, try) to push her. She _____ (have, tell) the teacher and so he _____ (have, chase) her, and she _____ (have, fall) down and _____ (have, tear) her dress.

MATHEMATICS

General Instructions:

1. This worksheet is a part of Maths Portfolio and must be attached in the Maths Portfolio File.
 2. This worksheet must be written on ruled A4 sheets.
 3. This worksheet consists of 35 questions in total.
 4. Each question is compulsory.
 5. Questions 31 - 35 are **case study based** questions.
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1. An army contingent of 616 members is to march behind an army band of 32 members in a parade. The two groups are to march in the same number of columns. What is the maximum number of columns in which they can march?
2. Three sets of English, Hindi and Mathematics books have to be stacked in such a way that the books are stored topic-wise and the height of each stack is same. The number of English books is 96, the number of Hindi books is 240 and the number of Mathematics books is 336. Assuming that the books are of the same thickness, determine the number of stacks of English, Hindi and Mathematics books.
3. Explain whether the number $3 \times 5 \times 13 \times 46 + 23$ is a prime number or a composite number.
4. Check whether 15^n end with the digit 0 for any natural number n .

5. A circular field has a circumference of 360 km. Three cyclists start together and can cycle 60 km, 72 km and 90 km a day, around the field. After how many days will they meet again at the starting point?
6. Prove that \sqrt{p} is an irrational number.
7. Prove that $\sqrt{3} - \sqrt{2}$ is an irrational number.
8. Prove that $7 - \sqrt{2}$ is an irrational number where $\sqrt{2}$ is irrational.
9. Prove that $\frac{7\sqrt{2}}{5}$ is not a rational number.
10. Find the zeroes of the polynomial $4\sqrt{3}x^2 + 5x - 2\sqrt{3}$.
11. For what value of k, 3 is a zero of the polynomial $2x^2 + x + k$?
12. Find the zeroes of $100x^2 - 81$.
13. Find the zeroes of quadratic polynomial $abx^2 + (b^2 - ac)x - bc$ and verify the relationship between the zeroes and the coefficients.
14. Find a quadratic polynomial whose zeroes are $2 - \sqrt{3}$ and $2 + \sqrt{3}$.
15. If α and β are zeroes of the polynomial $3x^2 + 5x - 2$, then form a quadratic polynomial whose zeroes are 2α and 2β .
16. If β and $\frac{1}{\beta}$ are the zeroes of the polynomial $4x^2 - 2x + (k - 4)$, find the value of k.
17. If α and β are zeroes of the polynomial $ax^2 + bx + c$, then find the value of $\alpha - \beta$.
18. Solve $16x^2 - 9 = 0$
19. Find the roots of quadratic equation $\sqrt{2}x^2 + 7x + 5\sqrt{2} = 0$ using factorization method.
20. Solve $12abx^2 - (9a^2 - 8b^2)x - 6ab = 0$ using factorization method.
21. If $\sec \theta = \frac{25}{7}$, find all other trigonometric ratios of angle θ .
22. If $\sin A = \frac{3}{5}$, prove that $\tan A + \frac{1}{\cos A} = 2$, where A is an acute angle.
23. If $\sin A = \frac{3}{5}$, prove that $\sqrt{\frac{1+\sin A}{1-\sin A}} = \frac{1+\sin A}{\cos A}$
24. Evaluate: $\sin 60^\circ \cos 30^\circ + \sin 30^\circ \cos 60^\circ$.
25. Evaluate: $\frac{5\cos^2 60^\circ + 4\sec^2 30^\circ - \tan^2 45^\circ}{\sin^2 30^\circ + \cos^2 30^\circ}$
26. If $\sin (A + B) = 1$ and $\cos (A - B) = \frac{\sqrt{3}}{2}$, $0 < A + B \leq 90^\circ$, $A > B$, find A and B.
27. Prove that: $\frac{\sin A + \cos A}{\sin A - \cos A} + \frac{\sin A - \cos A}{\sin A + \cos A} = \frac{2}{\sin^2 A - \cos^2 A} = \frac{2\sec^2 A}{\tan^2 A - 1}$
28. Prove that: $\frac{1}{(\sec A - \tan A)} - \frac{1}{\cos A} = \frac{1}{\cos A} - \frac{1}{(\sec A + \tan A)}$
29. Prove that: $\sin^6 A + \cos^6 A = 1 - 3\sin^2 A \cos^2 A$
30. If $\cos \theta + \sin \theta = \sqrt{2} \cos \theta$, prove that $\cos \theta - \sin \theta = \sqrt{2} \sin \theta$

Case Study

31. Shalvi wants to organize her birthday party. She was happy on her birthday. She is very

Health conscious, thus she decided to serve fruits only. She has 36 apples and 60 bananas at home and decided to serve them. She want to distribute fruits among guests. She does not want to discriminate among guests so she decided to distribute equally among all.



- (i) How many maximum guests Shalvi can invite?
 (a) 12 (b) 120 (c) 6 (d) 180
- (ii) How many apples and bananas will each guest get?
 (a) 3 apple 5 banana (b) 5 apple 3 banana
 (c) 2 apple 4 banana (d) 4 apple 2 banana
- (iii) Shalvi decide to add 42 mangoes also. In this case how many maximum guests Shalvi can invite?
 (a) 12 (b) 120 (c) 6 (d) 180
- (iv) If Shalvi decide to add 3 more mangoes and remove 6 apple, in this case how many maximum guests Shalvi can invite?
 (a) 12 (b) 30 (c) 15 (d) 24
- (v) How many total fruits will each guest get?
 (a) 6 apple 5 banana and 6 mangoes
 (b) 6 apple 10 banana and 7 mangoes
 (c) 3 apple 5 banana and 7 mangoes
 (d) 3 apple 10 banana and 6 mangoes

32. Indian Army is the third biggest military contingent in the World next to USA and China.

However, there are many firsts that make Indian army stand out in the world, making us all Indians very proud. Knowing them, will help you celebrate Republic day with greater vigour and gratitude. Indian Army is the third biggest military contingent in the World next to USA and China. However,



there are many firsts that make Indian army stand out in the world, making us all Indians very proud. Knowing them, will help you celebrate Republic day with greater vigour and gratitude. On 71th republic day Parade in Delhi Captian RS Meel is planing for parade of following two group:

- (a) First group of Army contingent of 624 members behind an army band of 32 members.
 (b) Second group of CRPF troops with 468 soldiers behind the 228 members of bikers. These two groups are to march in the same number of columns. This sequence of soldiers is followed by different states Jhanki which are showing the culture of the respective states.

- (i) What is the maximum number of columns in which the army troop can march?
 (a) 8 (b) 16 (c) 4 (d) 32
- (ii) What is the maximum number of columns in which the CRPF troop can march?
 (a) 4 (b) 8 (c) 12 (d) 16
- (iii) What is the maximum number of columns in which total army troop and CRPF troop together can march past?
 (a) 2 (b) 4 (c) 6 (d) 8

- (iv) What should be subtracted with the numbers of CRPF soldiers and the number of bikers so that their maximum number of column is equal to the maximum number of column of army troop?
- (a) 4 Soldiers and 4 Bikers (b) 4 Soldiers and 2 Bikers
(c) 2 Soldiers and 4 Bikers (d) 2 Soldiers and 2 Bikers
- (v) What should be added with the numbers of CRPF soldiers and the number of bikers so that their maximum number of column is equal to the maximum number of column of army troop?
- (a) 4 Soldiers and 4 Bikers (b) 12 Soldiers and 12 Bikers
(c) 6 Soldiers and 6 Bikers (d) 12 Soldiers and 6 Bikers

33. Riya has a field with a flowerbed and grass land. The grass land is in the shape of rectangle while flowerbed is in the shape of square. The length of the grassland is found to be 3 m more than twice the length of the flowerbed. Total area of the whole land is 1260 m^2 .



- (i) If the length of the flower bed is x m then what is the total length of the field?
- (a) $(2x + 3) \text{ m}$ (b) $(3x + 3) \text{ m}$ (c) $6x \text{ m}$ (d) $(2x + 5) \text{ m}$
- (ii) What will be the perimeter of the whole field?
- (a) $(8x + 6) \text{ m}$ (b) $(6x + 8) \text{ m}$ (c) $(4x + 3) \text{ m}$ (d) $(4x + 3) \text{ m}$
- (iii) What is the value of x if the area of total field is 1260 m^2 .
- (a) 21 m (b) 10 m (c) 20 m (d) 15 m
- (iv) What is the area of grassland?
- (a) 180 m^2 (b) 360 m^2 (c) 400 m^2 (d) 860 m^2
- (v) What is the ratio of area of flowerbed to area of grassland?
- (a) $\frac{20}{43}$ (b) $\frac{23}{40}$ (c) $\frac{26}{43}$ (d) $\frac{23}{46}$

34. In an auditorium, seats are arranged in rows and columns. The number of rows were equal to the number of seats in each row. When the number of rows were doubled and the number of seats in each row was reduced by 10, the total number of seats increased by 300.

- (i) If x is taken as number of row in original arrangement which of the following quadratic equation describe the situation?

- (a) $x^2 - 20x - 300 = 0$
(b) $x^2 + 20x - 300 = 0$
(c) $x^2 - 20x + 300 = 0$
(d) $x^2 + 20x + 300 = 0$



- (ii) How many number of rows are there in the original arrangement?

- (a) 20 (b) 40 (c) 10 (d) 30

- (iii) How many number of seats are there in the auditorium in original arrangement?

- (a) 725 (b) 400 (c) 900 (d) 680

- (iv) How many number of seats are there in the auditorium after re-arrangement.

- (a) 860 (b) 990 (c) 1200 (d) 960

- (v) How many number of columns are there in the auditorium after re-arrangement?

- (a) 42 (b) 20 (c) 25 (d) 32

35. The director of the Blue Rose club must decide what to charge for a ticket to the club's performance of The Music Man. If the price is set too low, the club will lose money; and if the price is too high, people won't come. From past experience she estimates that the profit P from sales (in hundreds) can be approximated by $P(x) = -x^2 + 22x - 40$ where x is the cost of a ticket and $0 \leq x \leq 22$ thousand rupees.

- (i) What is the lowest cost of a ticket that would allow the club to break even?

- (a) Rs 3 thousand (b) Rs 4 thousand
(c) Rs 2 thousand (d) Rs 1 thousand

- (ii) What is the highest cost that the club can charge to break even?

- (a) Rs 16 thousand (b) Rs 14 thousand
(c) Rs 4 thousand (d) Rs 20 thousand

- (iii) If club charge Rs 4 thousand for each ticket, what is the profit/loss?

- (a) Loss Rs 16 thousand (b) Profit Rs 16 thousand
(c) Loss Rs 32 thousand (d) Profit Rs 32 thousand

- (iv) If club charge Rs 25 thousand for each ticket, what is the profit/loss?

- (a) Loss Rs 115 thousand (b) Profit Rs 85 thousand
(c) Loss Rs 85 thousand (d) Profit Rs 115 thousand

- (v) What is the maximum profit which can be earned by club?

- (a) Rs 40 thousand (b) Rs 81 thousand
(c) Rs 61 thousand (d) Rs 42 thousand

CREATIVE CORNER

ROLL NO.	ACTIVITY
1 – 10	Chart on A Pair of Linear Equation in Two Variables
10 – 20	Chart on Polynomials OR Quadratic Equation
20 – 30	Chart on Introduction to Trigonometry
30 – 40	Chart on Probability
40 – ABOVE	Chart on Triangles

Lab Activity

- (i) To find the probability of different sums obtained on numbers on two dice, when they are rolled once. (Page No.65)
- (ii) Conditions for Consistency of a System of Linear Equation in two Variables by Graphical Method. (Page No.1)

Where to do : In Lab Activity File.

SCIENCE

PHYSICS

Attempt all the questions in A4 size sheet as it will be added in your portfolio.

- Q1 State the laws of refraction of light. If the speed of light in vacuum is 3×10^8 m/s, find the absolute refractive index of a medium in which light travels with a speed of 1.4×10^8 m/s.
- Q2 State two positions in which concave mirror produces a magnified image of a given object. List two differences between the images.
- Q3 How are the power and focal length of a lens are related? Which lens will you use to obtain more convergent light, and why?
- Q4 Find the nature, size and position of image formed when an object of size 1cm is placed at a distance of 15 cm from a concave mirror of focal length 10cm .
- Q5 Can a convergent lens in one medium become divergent in another medium? Explain with the help of two examples.
- Q6 A convex mirror used for rear view on an automobile has a radius of curvature of 3.00m. if a bus is located at 5.00m from this mirror , find the position, nature and size of the image.
- Q7 Differentiate between the terms absolute refractive index and relative refractive index. Also mention three factors on which refractive index depends.

- Q8 Refractive index of diamond with respect to glass is 1.6 and absolute refractive index of glass is 1.5. Find out the absolute refractive index of diamond.
- Q9 A real image, $\frac{4}{5}$ size of the object is formed 18cm apart from the lens. Calculate the focal length of the lens.
- Q10 Two thin lenses of focal lengths +10cm and -5cm are kept in contact. What is the focal length and power of combination?

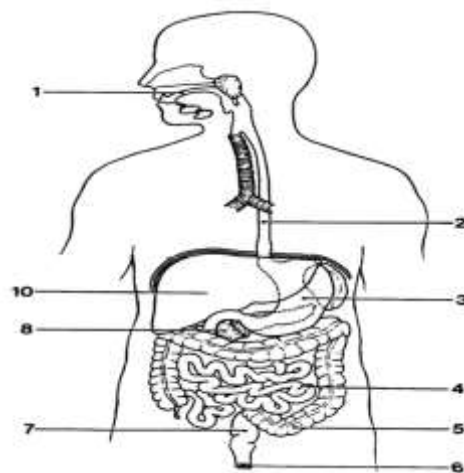
CHEMISTRY

- Q1. What do you understand by skeletal equation?
- Q2. What happens when a magnesium ribbon is ignited? Give Chemical reaction.
- Q3. Write the equation in the symbolic form with state symbols for the following reactions:
Zinc + Sulphuric Acid \rightarrow Zinc Sulphate + Hydrogen
- Q4. Why do we rub magnesium ribbon with a sand paper igniting?
- Q5. What are exothermic and endothermic reactions?
- Q6. Write the chemical equation of the reaction in which the formation of precipitate taken place.
- Q7. Balance the following chemical equations:
- | | |
|--|--|
| a) $\text{NaOH} + \text{H}_2\text{SO}_4 \rightarrow \text{Na}_2\text{SO}_4 + \text{H}_2\text{O}$ | e) $\text{PbO} + \text{C} \rightarrow \text{Pb} + \text{CO}_2$ |
| b) $\text{Fe}_2\text{O}_3 + \text{Al} \rightarrow \text{Al}_2\text{O}_3 + \text{Fe} + \text{Heat}$ | f) $\text{Mg} + \text{N}_2 \rightarrow \text{Mg}_3\text{N}_2$ |
| c) $\text{Al} + \text{Cl}_2 \rightarrow \text{AlCl}_3$ | g) $\text{NH}_3 + \text{O}_2 \rightarrow 4\text{NO} + 6\text{H}_2\text{O}$ |
| d) $\text{MnO}_2 + \text{Al} \rightarrow \text{Mn} + 2 \text{Al}_2\text{O}_3$ | h) $\text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$ |

BIOLOGY

- Q1. Write two different ways in which glucose is oxidized to provide energy in human body. Write the products formed in each case.
- Q2. Why is there a difference in the rate of breathing between aquatic organisms and terrestrial organisms? Explain.
- Q3. (a) Write the function of the following in the human alimentary canal:
(i) Saliva (ii) HCl in stomach (iii) Bile juice (iv) Villi
(b) Write one function each of the following enzymes:
(i) Pepsin (ii) Lipase
- Q4. Mention some functions of the heart. Why is double circulation necessary in human body?
- Q5. Respiration is exothermic process. Justify the statement by giving chemical equation. How is breathing different from respiration?
- Q6. (a) Why is nutrition necessary for the human body?
(b) What causes movement of food inside the alimentary canal?
(c) Why is small intestine in herbivores longer than in carnivores?
(d) What will happen if mucus is not secreted by the gastric glands?
- Q7. Write the correct sequence of steps followed during journey of oxygen rich blood from lungs to various organs of human body.
- Q8. How the process of obtaining nutrition is different in Amoeba and Paramecium?

- Q9. Arteries have thick walls while Veins have comparatively thin walls. Justify.
- Q10. In the experimental set-up to show that “the germinating seeds give out carbon dioxide”, answer the following questions:
 a) Why do we keep the conical flask airtight?
 b) Name the substance kept in the small test tube inside the conical flask. Write its role.
 c) Why does water rise in the delivery tube?
- Q11. (a) Mention any two components of blood.
 (b) Trace the movement of oxygenated blood in the body.
 (c) Write the function of valves present in between atria and ventricles.
 (d) Write one structural difference between the composition of artery and veins.
- Q12. Write the various modes of nutrition. Distinguish between autotrophic and heterotrophic mode of nutrition.
- Q13. Draw a well labelled diagram of human respiratory system.
- Q14. Record the experiments done till now in practical notebook.
- Q15. Describe blood circulation in human beings.
- Q16. What is photosynthesis? Explain its mechanism.
- Q17. Revise all the written work done in notebook.
- Q18. Identify and write the name of organs in the following diagram.



SOCIAL- SCIENCE

Assignment: Ch - Development

- Q1. Define National development.
- Q2. Which Indian State has the lowest Mortality Rate?
- Q3. State any two goals of development other than Income.
- Q4. How is HDI calculated? What does it show?
- Q5. How is BMI used to determine the undernourishment of a Person? Explain.
- Q6. Consequences of environmental degradation do not respect national or state boundaries. Justify the statement.
- Q7. Why is the issue of sustainability important for Development?
- Q8. List a few examples of environmental degradation that you may have observed around you.

Q9. "The Earth has enough resources to meet the needs of all but not enough to satisfy the greed of even one person." How is this statement relevant to the discussion of Development?

Q10. Why do we use averages? Are there any limitations to their use? Illustrate with your own examples related to development.

Assignment Geography: Ch - Resources and Development

Q1. What are Developed resources?

Q2. When and where was the first International Earth Summit held?

Q3. State any one reason for overuse of resources.

Q4. Which state is abundant in Laterite soil?

Q5. How can we classify the resources?

Q6. What is Agenda 21?

Q7. Suggest any five measures to solve the problem of land degradation in India.

Q8. Explain the formation and important features of the laterite soil.

Q9. How can we check soil erosion in hilly areas?

Q10. What is the role of humans in resource development?

Name of Activity – Project Work (Compulsory component according to CBSE norms)

Note : Attempt any one project.

Learning Objectives

- To enable our students to develop research skills
- To help them analyse a theme from multiple perspectives and present it in the form of a research project

Methodology – All students have been allotted a theme based on their Roll Numbers. They are as follows. The method of research and presentation has been described below it.

1. Consumer Awareness

The students need to gather information on the following consumer products.

A. An electrical appliance (**Roll nos. 1 and 5**)

B. A packaged food product (**Roll nos. 2 and 6**)

C. Any one utilitarian product (**Roll nos. 3 and 7**)

D. Any one luxurious product (**Roll nos. 4 and 8**)

Research your topic using the following sub-headings. But, remember, these are only suggestive. You may add or delete information.

A. Characteristics of the product in terms of usage, price, availability, popularity

B. Draw a comparison with similar other products

C. Advantages and disadvantages of using it

D. Consumer awareness regarding its disadvantages, if any

- E. Its logo and certification
- F. Precaution to be taken by customer before buying the good
- G. Customer exploitation in the market with regard to the product, if any
- H. Consumer rights related to exploitation, if any
- I. Ways to become well-informed customers

2. Social Issues

The students need to gather information on the following social issues.

- A. Social Hierarchy and Inequality (**Roll nos. 9**)
- B. Civil Rights of Children (**Roll nos. 10**)
- C. Refugees (**Roll nos. 11**)
- D. Orphaned and Abandoned children (**Roll nos. 12**)
- E. Violence against Women (**Roll nos. 13**)
- F. Gender Identity (**Roll no. 14**)
- G. Fighting Racism against Oppressed Classes (**Roll no. 15**)
- H. Drugs and Alcohol Abuse (**Roll no. 16**)
- I. Communalism (**Roll no. 17**)

Research your topic using the following sub-headings. But, remember, these are only suggestive. You may add or delete information.

- A. Definition and concept
- B. Causes
- C. Types
- D. Impact
- E. Legal and Constitutional safeguards
- F. Prevention efforts by society
- G. Statistics wherever required

3. Sustainable Development

The students need to gather information on the following topics.

- A. Smart Agriculture (**Roll nos. 18**)
- B. Sustainable Mobility (**Roll nos. 19**)
- C. Zero Hunger (**Roll nos. 20**)
- D. Sustainable Energy (**Roll no. 21**)
- E. Sustainable Architecture (**Roll no. 22**)

Research your topic using the following sub-headings. But, remember, these are only suggestive.

- A. Definition and concept
- B. Types

- C. Impact (Preferably through a case study)
- D. Government's effort and endeavour in implementing it
- E. Relation to 2030 Agenda for Sustainable Development

Guidelines for preparation of Project Report

- A. The project report can be in the form of a Handwritten document.
- B. The total length of the written project report should not be more than 10-12 pages/slides.
- C. The project report will be developed and presented in the following order:
 - Page- 1 Cover Page showing project title, an apt illustration, and student information (Name, Class, Section and Roll no.), school and year (2020-21).
 - Page-2 Acknowledgement
 - Page- 3 Table of Content
 - Page- 4 Project Overview: Aim and Methodology
 - Page- 5-10 Subject Matter
 - Page- 11 Conclusion (Summary and Analysis)

INFORMATION TECHNOLOGY (402) CLASS X

Note: Do all the questions in your Class Note Book

Q1 Multiple choice questions:

- 1 _____ is a series of postures and breathing exercises practiced to achieve control of body and mind.

a. Meditation	b. Nature Walk
c. Yoga	d. Physical Exercise
- 2 _____ is not the quality of self-confident people.

a. Dependent	b. Positive Attitude
c. Hard Working	d. Commitment
- 3 Which of the following application is not appropriate to store data about ABC Bank customers?

a. Open Office Base	b. Open Office Writer
c. MS Access	d. MS Excel
- 4 When you open a new spread sheet, by default, it has a sheet named _____ which is managed using tabs at the bottom of the spread sheet.

a. Sheet1	b. Worksheet1
c. Untitled1	d. New Sheet
- 5 Identify the property which helps to set the number of characters in text/ varchar type field of a table in DBMS.

- a. Entry Required
- b. Size
- c. Default Value
- d. Length

6 The length of the field value of text data type is _____ characters by default in DBMS.

- a. 10
- b. 25
- c. 20
- d. 50

7 Identify the mode, where we can modify in the structure of table?

- a. Datasheet view
- b. Design view
- c. Structure view
- d. All of the above

Q2 Define the following:

1. Sorting (with respect to DBMS)
2. Referential Integrity
3. Many-to-Many Relationship (with respect to DBMS)
4. Foreign key

Q3 Mention any two integer data types of a table field in database

Q4 Name the relationship in which one column of the primary key table is associated with all the columns of the associated table and vice versa.

Q5 Define the following:

- a. Data Integrity
- b. Data Inconsistency
- c. Composite Primary Key
- d. Relationship (with respect to DBMS)

Practical file Questions:

Q1 Make a policy for your school to manage waste. The policy must incorporate the objectives and the expected outcomes. Remember to define the roles to students, teachers and other members of your school.

Type an article for the same in Ms-Word and paste print out in your P. File.
Article supported by Beautiful pictures, Quotes etc.

Q2 Draw a Table structure showing Flat File Model.

Q3 Define Referential Integrity using suitable Table Structure.

Q4 Show the relationship of Primary & Foreign Key using picture.

Q5 Write Query to create the following table "items".

Column name	Data type	Size	Constraint
Itemno	Integer		Primary key
Iname	Varchar	15	
Price	Numeric	10, 2	
Quantity	Integer	3	

Q6 Consider the above table "items" and write the queries for the following (i) and (x).

i. Write a command to insert a new record with the following values:

(66, 'Gel', 150, 70).

ii. Write a query to display all the record of table Item whose price is in the range of 100 and 300.

iii. Write a query to display all the records of a table in descending order of quantity.

iv. Write a query to display all the records of a table in ascending order of price.

v. Remove the records of soap from the table

vi. Modify the Itemname from shampoo to dove shampoo

vii. To remove the table item

viii. Remove all the records from the table;

ix. Write a command to insert a new record with the following values:

(76, 'Face Wash', 250, 50).

x. Increase the Quantity of every item by 10 unit.

हिंदी

रचनात्मक कार्य

- (1) किन्ही दो ऐतिहासिक स्थलों के विषय में जानकारी प्राप्त कर उनका सचित्र विवरण ए - 4 आकार की रंगीन शीटों पर आकर्षण ढंग से लिखिए ।
- (2) नीति, भक्ति और मित्रता से संबंधित किन्हीं चार दोहों का संकलन ए-4 आकार की शीटों पर सचित्र आकर्षक ढंग से कीजिए।

लिखित कार्य

- (1) आए दिन बस चालकों की असावधानी के कारण हो रही दुर्घटनाओं पर चिंता व्यक्त करते हुए परिवहन विभाग के निदेशक को पत्र लिखिए।
- (2) आप 'प्रताप विहार' दिल्ली के अंशुमन गोयल हैं आप की बस्ती में वन महोत्सव के अवसर पर वन विभाग की ओर से बहुत से वृक्ष लगाए गए थे किंतु उपेक्षा भाव के कारण अब वे सूख रहे हैं । वन विभाग के मुख्य अधिकारी को इसकी जानकारी देते हुए एक शिकायती पत्र लिखिए।
- (3) दिए गए संकेत बिंदु के आधार पर निम्नलिखित विषयों पर 100 से 125 शब्दों में अनुच्छेद लिखिए

(क) देश पर पड़ता विदेशी प्रभाव

संकेत बिंदु - Δ हमारा देश और संस्कृति Δ विदेशी प्रभाव Δ परिणाम और सुझाव

(ख) प्रकृति की रक्षा,मानव की सुरक्षा

संकेत बिंदु - Δ मनुष्य प्रकृति का अंग Δ प्रकृति से खिलवाड़ Δ बढ़ता प्रदूषण Δ प्रकृति की रक्षा Δ मानव जाति का कर्तव्य

- (4) आप विद्यालय की समाज सेवा परिषद के सचिव आशीष राज हैं। आप प्रौढ़ों की साक्षरता के लिए एक सप्ताह का शिविर लगाना चाहते हैं इसके लिए विद्यार्थी रोज शाम को एक गांव में जाकर चौपाल में प्रौढ़ों को अक्षर ज्ञान कराया करेंगे। इच्छुक विद्यार्थियों द्वारा नाम देने का अनुरोध करते हुए एक सूचना पत्र तैयार कीजिए।

(5) आप विद्यालय की खेल परिषद के सचिव मानव भारती हैं। विद्यालय में छात्रों के शारीरिक विकास हेतु योग शिविर का आयोजन किया जा रहा है विद्यार्थियों को इसकी जानकारी देने हेतु सूचना लिखिए।

(6) निम्नलिखित प्रश्नों के उत्तर दीजिए

(क) लेखक को मौन देखकर बड़े भाई का व्यवहार कैसा हो जाता था?

(ख) 'अहंकार मनुष्य का विनाश करता है'- इस कथन को स्पष्ट करने के लिए बड़े भाई ने क्या क्या उदाहरण दिए अपने शब्दों में लिखिए?

(ग) विरह रूपी सर्प कबीर के अनुसार कौन हैं और मंत्र किसे कहा गया है?

(घ) कबीर ने ईश्वर का निवास कहां बताया है?

(ङ.) कहानी के अनुसार बड़े भाई साहब को क्या विशेषाधिकार मिला हुआ था?

(च) कहानी में हरिहर काका और उनके परिवार के बारे में क्या बताया गया है? विस्तार से लिखिए।

(छ) ठाकुरबारी की स्थापना किस उद्देश्य से की गई थी? वह क्या-क्या काम करती थी? क्या पाठ में उसने अपना उद्देश्य पूर्ण किया है? स्पष्ट कीजिए ।

(7) निम्नलिखित रेखांकित पदबंधों के भेद लिखिए

(क) सामने के मकान में रहने वाला युवक आज मुंबई चला गया।

(ख) प्रतिदिन व्यायाम करने वाले व्यक्ति स्वस्थ रहते हैं।

(ग) हमारे क्षेत्र में आजकल चोरी की घटनाएं बढ़ती चली जा रही है।

(घ) बूढ़ा धीरे धीरे लंगड़ाता हुआ चल रहा था।

(ङ.) फटे पुराने वस्त्रों वाला कोई दरवाजे पर खड़ा है।

(च) दो दिन पहले लापता हुआ बालक मिल गया।

(छ) वह पुरस्कार में मिली पुस्तक लेकर आया है।

(ज) उसने ततांरा को तरह तरह से अपमानित किया।

(झ) बड़ी-बड़ी बातें करने वाले तुम कभी सफल नहीं हो सकते।

(ट) पतंग हवा में उड़ती चली गई।

(ठ) उसने नए पुराने सभी नोट ले लिए।

(8) निम्नलिखित मुहावरों का अर्थ लिखिए

(क) जान तोड़ मेहनत करना

(ख) आड़े हाथों लेना

(ग) गाड़ी कमाई

(घ) जमीन पर पांव ना रखना

(ङ.) घाव पर नमक छिड़कना

(च) हाथ पांव फूल जाना

(छ) पहाड़ टूट पड़ना

(ज) तूती बोलना

(9) निम्नलिखित के लिए मुहावरा लिखिए

(क) दिल पर भारी आघात लगना

(ख) चोरी-चोरी आना

(ग) अयोग्य को कोई महत्वपूर्ण वस्तु मिलना।

(घ) लड़ाई के लिए तैयार रहना

(ङ.) थोड़े में बहुत कुछ कह देना।

(च) इंतजार करना

(छ) उदासी दूर होना

(ज) धोखा देना

(झ) बहुत दिनों बाद दिखाई देना

(ट) चुगली करना

सामान्य निर्देश - समस्त लिखित कार्य मुक्त शीट (loose sheets) पर कीजिए

कला एकीकृत गतिविधि

अंडमान निकोबार द्वीप समूह के लोकगीतों एवं लोक नृत्यों के विषय में जानकारी एकत्र कीजिए व

ए-4 आकार की अलग-अलग शीटों पर सचित्र आकर्षक ढंग से लिखिए।

ART INTEGRATION

1. The Jarawas are recognised as an Adivasi group in India. They have inhabited the islands for several thousand years along with other indigenous Andamanese people. But now they are running under the risk of extinction as poaching, tourism and growing modernism is threatening their survival. Prepare a project on 'The Jarawa Tribe' highlighting their history, lifestyle, culture, festival and food. Suggest some ways to bring them under the main stream without exploiting their culture.
2. Do as directed:
 - (a) Prepare a bar graph showing comparison of population density of the given years: 2001, 2011 and 2021.
 - (b) Prepare a line chart showing male : female ratio.
 - (c) Prepare a pie chart or bar graph demonstrating population of rural and urban area
3. Write an analytical paragraph based on the above graphical representations and compare the literacy rate among males and females and also comment upon the factors that influence the population size of urban and rural areas.
4. Find out about the main crops grown in Andaman and Nicobar Islands and Lakshadweep. Also, comment upon their growing season and specific agricultural practices.
5. Make a brief project on food choices, spoken languages, climatic conditions, ornaments and dresses preferred by the people residing in Andaman and Nicobar Islands.