NORTH-EX PUBLIC SCHOOL
(SENIOR SECONDARY, AFFILIATED TO CBSE)
SCHOOL BLOCK, JAIN NAGAR, SECTOR-38, ROHINI, DELHI-81
SUMMER HOLIDAY HOMEWORK
CLASS X

ENGLISH

1. Make a poster portraying your thoughts and point of view on: "Love for freedom is the natural instinct of every living being."
2. Read the chapters done till now of First Flight and learn all the question and answers.
3. Read chapter 1 and 2 of footprints without feet and learn all the question and answers.
4. Write the summary of all the chapters done till now in the test registers.
5. Suppose that you were on a morning walk and caught in a heavy storm, how did you manage to save yourself. Compose a story within 150 words.
6. Describe the following proverbs in your own words in not more than 50 words-
No gains without pains All's well that ends well
7. Complete the following passage by choosing the most appropriate option from the ones given below.
Like many Indian children, I grew up (a) _____ the vast, varied and fascinating tales of Mahabharata. Set (b) _____ the end of what the Hindu scriptures term Dvapur Yuga or the third age of the man a time (c)_____ the lives of the gods and the people still intersected , the epic weaves myth, history, religion, science and statecraft (d)_____ stories.
(a) (i) saying (ii) listening to (iii) questioning (iv) celebrating
(b) (i) by (ii) at (iii) from (iv) into
(c) (i) where (ii) from (iii) when (iv) before
(d) (i) as (ii) in (iii) through (iv) into
8. Describe the views of Mandela for the black people who fought and sacrificed their lives for the country's political independence.
9. Compare and contrast Tricki in the beginning and in the end of the story.
10. Education means different things to different people. Evaluate how it impacted the young thief, Hari Singh in the story.

HINDI

प्रश्न 1. पाठ 'बड़े भाई साहब' के आधार पर बताइए कि लेखक और बड़े भाई साहब में क्या अंतर था? आपके विचार में दोनों में से गलत कौन था ?

प्रश्न 2. कबीर ने ईश्वर प्राप्ति में किस बाधक माना है और क्यों? अपने शब्दों में बताइए।

प्रश्न 3. 'कस्तूरी' के विषय में जानकारी प्राप्त कीजिए व लिखिए।

प्रश्न 4. मीराबाई द्वारा रचित पहले पद में श्री कृष्ण ने किन-किन भक्तों को संकटों से उबारा था? उनके विषय में जानकारी प्राप्त कीजिए व संक्षेप में लिखिए।

प्रश्न 5. दूसरे पद में मीरा किन-किन रूपों में कृष्ण की निकटता चाहती हैं? मीरा की भक्ति किस प्रकार की है?

प्रश्न 6. 'विश्व पटल पर हिंदी का बढ़ता वर्चस्व' विषय पर लगभग 100 शब्दों में अनुच्छेद लिखिए।

प्रश्न 7. 'मधुर वचन हैं औषधि, कटुक वचन हैं तीर' विषय पर लगभग 100 शब्दों में अनुच्छेद लिखिए।

प्रश्न 8. आप केंद्रीय विद्यालय दिल्ली के प्रधानाचार्य राकेश कुमार हैं। आपके विद्यालय में अंतर कक्षा वाद-विवाद प्रतियोगिता आयोजित की जा रही है। 9वीं से 12वीं कक्षा के छात्रों को सूचित करते हुए लगभग 80 शब्दों में सूचना लिखिए।

प्रश्न 9. आपके क्षेत्र में एक नेत्र चिकित्सा शिविर का आयोजन किया जा रहा है। क्षेत्र के प्रधान की ओर से क्षेत्र वासियों को सूचित करते हुए लगभग 80 शब्दों में सूचना लिखिए।

प्रश्न 10.दस सरल वाक्य लिखिए तथा उन्हें संयुक्त व मिश्र वाक्य में परिवर्तित कीजिए।

MATHEMATICS

1. There is a circular path around a sports field. Ram takes 24 minutes to walk one round of the field while Ravi takes 18 minutes for the same . If they both start at the same point, at the same time and go in the same direction, after how many minutes will they meet again at the starting point?

2. Find the largest number which divides 245 and 1029 leaving remainder 5 in each case.

3. An army contingent of 616 members is to march behind an army band 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 match?

4. A sweet seller has 420 kaju barfis and 130 badam burfis. She wants to stack them in such a way that each stack has the same number , and they take up the least area of the tray. What is the number of burfis that can be placed In each stack for this purpose?

5. There are 24 peaches, 36 apricots and 60 bananas and they have to arrange in several rows in such a way that every rows contains the same number of fruits of only one type. What is the minimum no. of rows required for this to happen?

6. A coin is tossed 3 times. Find the probability of getting

i) Atmost two heads

ii) At least two heads

7. A card is to be drawn from a well shuffled deck of cards, Find the probability of getting

    i)   A red face card.

    ii)   It will not be a face card.

    iii)   A black king.

8. Red queens and black jacks are removed from a pack of 52 playing cards. A card is drawn at random from the remaining cards, after reshuffling them. Find the probability that the card drawn is (a) a king   (b) of red colour (c) a face card.

9. Evaluate $4/3 \tan^2 30^0 + \sin^2 60^0 - 3\cos^2 60^0 + ¾ \tan^2 60^0 - 2\tan^2 45^0$

10. Find the value of k so that the equation $(k + 4)x^2 + (k + 1) x + 1 = 0$ has equal roots.

11. If the equation $(1 + m^2) x^2 + 2mcx + (c^2 - a^2) = 0$ has equal roots , prove that $c^2 = a^2(1+ m^2)$.

12. A shopkeeper buys some books for Rs 80. If he had bought 4 more books for the same amount, each book would have cost Rs 1 less. Find the number of books he bought.

13. A train travelling at a uniform speed for 360 km, would have 48 min less to travel the same distance if its speed were 5km/h more. Find the original speed of the train.

14. Prove that $\dfrac{1}{1+ \sin^2\theta} + \dfrac{1}{1+ \cos^2\theta} + \dfrac{1}{1+ \sec^2\theta} + \dfrac{1}{1+ \csc^2\theta} = 2$

15. Complete lab Mannual Activities:

    3,5,11 ,17 , 18 , 23 , 24 , 33 , 34 , 40 .

16. Prove that $(\sin\theta + \cos\theta + 1)(\sin\theta - 1 + \cos\theta)\sec\theta\csc\theta = 2$.

SCIENCE

1. An electric bulb is rated as 10 W, 220 V. How many of these bulbs can be connected in parallel across the two wires of 220 V supply line if the maximum current which can be drawn is 5 A?

2. Two exactly similar electric lamps are arranged (i) in parallel, and (ii) in series. If the parallel and series combination of lamps are connected to 220 V supply line one by one, what will be the ratio of electric power consumed by them?

3. Two exactly similar heating resistances are connected (i) in series, and (ii) in parallel, in two different circuits, one by one. If the same current is passed through both the combinations, is more heat obtained per minute when they are connected in series or when they are connected in parallel? Give reason for your answer.

4. An electric iron is connected to the mains power supply of 220 V. When the electric iron is adjusted at 'minimum heating' it consumes a power of 360 W but at 'maximum heating' it takes a power of 840 W. Calculate the current and resistance in each case.

5. When the solution of substance X is added to a solution of potassium iodide, then a yellow solid separates out from the solution.
(a) What do you think substance X is likely to be?
(b) Name the substance which the yellow solid consists of.
(c) Which characteristic of chemical reactions is illustrated by this example?
(d) Write a balanced chemical equation for the reaction which takes place. Mention the physical states of all the reactants and products involved in the chemical equation.

6. When water is added gradually to a white solid X, a hissing sound is heard and a lot of heat is produced forming a product Y. A suspension of Y in water is applied to the walls of a house during white washing. A clear solution of Y is also used for testing carbon dioxide gas in the laboratory.
(a) What could be solid X? Write its chemical formula.
(b) What could be product Y? Write its chemical formula.
(c) What is the common name of the solution of Y which is used for testing carbon dioxide gas?
(d) Write chemical equation of the reaction which takes place on adding water to solid X.
(e) Which characteristic of chemical reactions is illustrated by this example?

7. When metal X is treated with a dilute acid Y, then a gas Z is evolved which burns readily by making a little explosion.
(a) Name any two metals which can behave like metal X.
(b) Name any two acids which can behave like acid Y.
(c) Name the gas Z.
(d) Is the gas Z lighter than or heavier than air?
(e) Is the reaction between metal X and dilute acid Y exothermic or endothermic?
(f) By taking a specific example of metal X and dilute acid Y, write a balanced chemical equation for the reaction which takes place. Also indicate physical states of all the reactants and products.

8. A solid substance P which is very hard is used in the construction of many buildings, especially flooring. When substance P is heated strongly, it decomposes to form another solid Q and a gas R is given out. Solid Q reacts with water with the release of a lot of heat to form a substance S. When gas R is passed into a clear solution of substance S, then a white precipitate of substance T is formed. The substance T has the same chemical composition as starting substance P.
(a) What is substance P? Write its common name as well as chemical formula.
(b) What is substance Q?
(c) What is gas R?
(d) What is substance S? What is its clear solution known as?
(e) What is substance T? Name any two natural forms in which substance T occurs in nature.

9. Why do herbivores have longer small intestine than carnivorous?
10. Write the Balanced Chemical equation for the process of photosynthesis and their functions. How photosynthesis occurs in desert plants.
11. Explain Exchange of Gases in Humans?
12. Make a Project on The Global Impact of Respiratory Disease, Hemodialysis, Heart Problems (Blood Pressure).
13. Complete your practical file.
14. Prepare a model on the following

S.No	Roll Numbers	Suggested Topics
1	1-5	THERMAL ENERGY OR NUTRITION IN AMOEBA
2	6-10	WIND ENERGY OR HUMAN HEART
3	11-15	HYDRO ELECTRIC ENERGY OR EXCRETORY SYSTEM
4	16-20	SOLAR ENERGY OR HUMAN DIGESTIVE SYSTEM
5	21-25	ELECRTRIC CIRCUIT OR DIAPHRAM & RESPIRATORY SYSTEM
6	26-30	SOLENOID OR STOMATA & PHOTOSYNTHESIS
7	31-35	AC DYNAMO OR NEURON SYSTEM

COMPUTER APPLICATIONS

1. Draw /Paste the pictures of most popular web browser (4) in register.
2. Draw /Paste the picture of "Working of a simple Google Search" engine in register pg. 39.
3. Draw a poster on logo of e-mail services.
4. Make a presentation on "Web Services" (8 slides).
5. Write any 5 Programs related to HTML (Ch -3 ,4) in register.
6. Make a File on HTML Programs (5) Programs.
7. Complete Ch -1,2 in Book , Register (if pending) and Revise.

SOCIAL SCIENCE

Q1. "Planning of resources is very important for a country like India." Justify by giving three reasons.

Q2. Which soil is considered ideal for growing cotton? How is the soil formed?

Q3. What changes were introduced after the French Revolution in France?

Q4. Explain the features of the painting of Frederic Sorrieu.

Q5. What do you mean by the word ethnic?

Q6. What is community government? Explain the concept of community government with context to Belgium.

Q7. 'The federal system has dual objectives.' Mention the dual objectives.

Q8. What are Residuary powers?

Q9. 'Money cannot buy all the goods and services that one needs to live well.' Explain.

Q10. Project work - Make a project on any one topic from the following:-

Sustainable Development

OR

Consumer Awareness

OR

Social Issues

VISUAL ART

1. Make a poster on Sustainable Lifestyle tips on A4 size sheet.
2. Make a stippling artwork in your art file using black pen.