

**Holiday Home Work 2009 – 10  
Class X**

**English**

**Note: Use your English language note-book for the following assignments:**

1. The following lines from the poem, 'Reaching Out' in the Main Course Book set you thinking on the need to educate adults. You decided to get involved in the adult education programme. Taking ideas from the unit, 'Education', along with your own ideas, write a letter to the editor of a newspaper in about 150 words encouraging youngsters to take part in the programme.

“ ..... despite our illiteracy,  
We still exist.  
But we have to know  
Why we should become literate”

2. Prepare and write a plan for the Annual Day celebration 2009-10 of The Study Senior Secondary School, Badi. Start with the venue, your reason for selecting the venue and the exact rent and time period for which you need that venue. Mention the total expenditure including that made on the following:
  - a. Invitation cards
  - b. Furniture
  - c. Refreshments
  - d. Props and costumes
  - e. Miscellaneous

Describe how you will coordinate the human resources (Staff and students) as the organizer.

3. Imagine you are taking a trip to the past (about 2500 BC) to learn about the geography, people, way of life and religious beliefs of the ancient civilisations of India and China.
  - a. What would be the best mode of travelling from India to China? Write in at least 150 words why this mode has been selected.
  - b. Paste a physical map of Asia on your note-book and trace on it the probable route you would take to travel to China.
  - c. Write in at least 100 words what kind of clothing, food and water supply equipment you would have to carry along to make your journey safe and comfortable. Give reasons.
  - d. Write a short note on the route taken by ancient travellers which served as the main highway from China to the Roman Empire. (500 words)

**Hindi**

**नोट :- नीचे दिया गया कार्य भाषा कॉपी में किजिए।**

1. कृतिका एवं क्षितिज पुस्तकों के समस्त गद्य भाग के पाठों का मुख्य प्रतिपाद्य लिखिए।
2. रचना के आधार पर 10 सरल, 10 मिश्रित और 10 संयुक्त वाक्य लिखिए।
3. 10 मुहावरें और 10 लोकोक्तियों का वाक्यों में प्रयोग कीजिए।
4. अव्यय के भेदों के 3-3 उदाहरण देकर लिखिए।

**Sanskrit**

**नोट :- नीचे दिया गया कार्य एक फाइल में किजिए।**

1. कोई भी चार चित्र लेकर प्रत्येक चित्र पर आधारित संस्कृत में पाँच वाक्य बनाइये।
2. समय गणना का प्रयोग करते हुए अपनी ग्रीष्मकालीन दिनचर्या अधिकतम 80 शब्दों में लिखिए।
3. कोई तीन श्लोक लेकर प्रत्येक श्लोक पर तीन प्रश्न बनाइये।

**Mathematics**

**A. Numerical problems**

**Note: Use your Mathematics note-book for solving the following problems:**

1. Find the roots of the equation.
$$\frac{1}{x+4} - \frac{1}{x-7} = \frac{11}{30}$$
2. The sum of the areas of two squares is 640m<sup>2</sup>. If the difference in their perimeters be 64 m find the sides of the two squares.

3. In a class test the sum of the marks obtained by P in maths and science is 28. Had he got 3 more marks in maths and 4 marks less in science, the product of marks obtained in the two subjects would have been 180. Find the marks obtained in two subjects separately.
4. Is  $X = -2$  a solution of the equation  $x^2 - 2x + 8 = 0$ ?
5. A motor Boat whose speed is 18 km/h in still water takes 1 hour more to go 24 km upstream than to return downstream to the same spot. Find the speed of the stream.
6. Show that  $x = -3$  is a solution of  $x^2 + 6x + 9 = 0$ .
7. A peacock is sitting on the top of a pillar, which is 9m high from a point 27 m away from the bottom of the pillar, a snake is coming to its hole at the base of the pillar, seeing the snake the peacock pounces on it. If their speed is equal at what distance from the hole is the snake caught?
8. The difference of two numbers is 4. If the difference of their reciprocal is  $\frac{4}{21}$ . Find the two numbers.
9. For what value of k the quadratic equation  $x^2 - kx + 4 = 0$  has equal roots?
10. Some students arranged a picnic. The budget for food was RS 240. Because four students of the group failed to go, the cost of the food to each student got increased by Rs 5. How many students went for the picnic?
11. A plane left 30 minutes late than its scheduled time and in order to reach the destination 1500 km away in time it had to increase the speed by 250 km/h from the usual speed. Find its usual speed.
12. If a student had walked 1 km/hr faster, he would have taken 15 minutes less to walk 3 km. Find the rate at which he was walking.
13. Find the value of k so that the quadratic equation  $2x^2 - (k-2)x + 1 = 0$  has equal roots.
14. By reduction of Re 1 per kg in the price of onions. Beena can buy one kg onions more for Rs. 56. Find the original price of the onions per kg.
15. The product of consecutive positive integers is 240. Formulate the quadratic equation whose roots are these integers.
16. Find the discriminant of  $x^2 = 4x - c$ .
17. Find the value of k so that the equation  $2kx^2 - 40x + 25 = 0$  has equal roots.
18. A two digit number is obtained by either multiplying the sum of the digit by 8 and adding 1 or multiplying the difference of the digits by 13 and adding 2. Find the number.
19. Find the nature of the roots of the quadratic equation  $2x^2 - 3x + 4 = 0$
20. The sum of the numerator and denominator of a fraction is 12. If the denominator is increased by 3, the fraction becomes  $\frac{1}{2}$ . Find the fraction.
21. Ten year ago father was twelve times as old as his son and ten years hence he will be twice as old as his son will be find their present ages.
22. What is the nature of roots of the quadratic equation?  $9a^2 b^2 x^2 - 24 abcdx + 16 c^2 d^2 = 0$
23. For what value of k the given equation has real and equal roots  $(k+1)x^2 - 2(k-1)x + 1 = 0$ .
24. Prove that both the roots of the equation  $(x-a)(x-b) + (x-b)(x-c) + (x-c)(x-a) = 0$  are real and equal when  $a = b = c$ .
25. If the roots of the equation  $(b-c)x^2 + (c-a)x + a-b = 0$  are equal, prove that  $2b = a+c$ .

## B. Activites

1. Verify the Pythagoras theorem by method of paper folding, cutting and pasting.
2. Verify that angle subtended by an arc at the centre of a circle is twice the angle subtended by the same arc at any other point on the remaining part of the circle, using the method of paper cutting, pasting and folding.
3. Verify using the method of paper cutting, pasting and folding that the sum of either pair of opposite angles of a cyclic quadrilateral is  $180^\circ$ .
4. Give a suggestive demonstration of the formulae for the volume of a sphere in terms of its radius.
5. Make a cone of given slant length (l) and base circumference ( $2\pi r$ )

Title – Explain with the help of an example that how Geometry can be used in real life including the following points:-

1. Objective
2. Description
3. Method
4. Result & inferences
5. Remark

### General Science

1. Make a working model and then make a report, from the list of topics given below and as allotted to you according to your serial number. (As given in the attendance sheet of April 2009.)

S.No.	Topic	Sec A	Sec B
1)	Electric current and different circuits	23 to 29	1 to 8
2)	Magnetic effects of electric current	15 to 22	9 to 16
3)	Different life processes in humans and other organisms	7 to 14	17 to 23
4)	Conservation of energy, water and soil	1 to 6	24 to 30

2. Find out various ways in which Chemistry could be used in the following streams and write at least 10 chemicals and 5 balanced chemical reactions along with their scientific names)
  - a. Pathology ( Roll no.-1-6)
  - b. Newspaper printing( Roll no.-7-12)
  - c. Photography( Roll no.-13-18)
  - d. Dentist(Medicine) ( Roll no.-18-24)
  - e. Tie and dye factory( Roll no.-25-30)

### Creative Activities

1. Make a painting with poster, acrylics or water based colours on canvas, paper sheet or clay pots.
2. Bring a minimum of 10 used Indian postage stamps of any denomination.
3. Give at least 10 ideas or suggestions for each subject taught to your class to make your classes more interesting for you.
4. Develop a hobby and / or fine and/ or performing art. Come prepared to make a presentation of the same in school.
5. Write a postcard to your Principal at school address. Write it before 15 June 2009 and tell her what part of your holiday homework you have completed.

**All the Best**