

**ST. COLUMBUS SCHOOL**  
**DAYAL BAGH, FARIDABAD**  
**CLASS – X**  
**HOLIDAY HOMEWORK (2024-25)**

**General Instructions:-**

1. Revise the completed syllabus of all the subjects for the Test to be held in July.
2. Holiday Homework of all the subjects should be done in A4 size sheets.

**SUBJECT – ENGLISH**

1. Write an article on any one of the following topics and prepare yourself for the speaking assessment.

- a. Children losing childhood
- b. Absenteeism is the major cause of falling standard in education
- c. Importance of discipline in a student's life
- d. The person who inspires me
- e. Gender Equality
- f. Health hazards caused by fast food
- g. Time Management

**2. PORTFOLIO**

Make a portfolio reflecting intellectual ability comprising the following points:

- a. Cover page
- b. About me ( my character traits –weaknesses and strength )
- c. A poster portraying your thought and point of view  
“LOVE FOR FREEDOM IS THE NATURAL INSTINCT OF EVERY LIVING BEING”.
- d. A portrait on any of your favourite freedom fighter.

3. Write a letter to the chairman, Water Authority, in upto 120- 150 words, on the problems related to scarcity of water. Also suggest a few effective remedies.

4. Read the chapters of FIRST FLIGHT done in the class and frame 5 internal questions from each.

5. Prepare a Dictionary for yourself writing the difficult words and their meanings used in the stories 1 & 2 of FOOT PRINTS WITHOUT FEET.

## SUBJECT - HINDI

1. " पर्यावरण के प्रति जागरूकता बढ़ाने के लिए एक विज्ञापन तैयार कीजिए।
2. भारतीय संस्कृति, पर्यावरण, आतंकवाद, जल, फैशन, सफलता, मित्रता, धैर्य, समय आदि में से किसी एक विषय पर **वाचन कौशल के मूल्यांकन** हेतु **स्वरचित कविता** लिखिए व याद कीजिए।
3. विद्यालय में खेल का सामान उपलब्ध कराने हेतु प्रधानाचार्य को प्रार्थना पत्र लिखिए।
4. गृह प्रवेश के अवसर पर आयोजित कार्यक्रम में भाग लेने के लिए अपने अपने मित्र को आमंत्रित कीजिए।
5. निम्नलिखित में से किसी एक विषय पर अनुच्छेद लिखिए।
  - मेरा देश महान
  - आज का युग सूचना प्रौद्योगिकी ( IT का युग )
6. सादा जीवन उच्च-विचार, शिक्षा का महत्व, जीवन में खेलकूद का महत्व व उपयोगिता, वृक्षारोपण आदि में से किसी एक विषय पर **वाचन कौशल के मूल्यांकन हेतु भाषण** तैयार कीजिए।
7. दिए गए बिंदुओं के आधार पर **पोर्टफोलियो** तैयार कीजिए-:
  - कवर पृष्ठ
  - मेरे विषय में
  - पोस्टर बनाइए आजादी का अमृत महोत्सव / विकसित भारत
  - पोर्ट्रेट 'चित्र' बनाइए मन्नू भंडारी / तुलसीदास
8. मित्र की नौकरी लगने पर उसे शुभकामना संदेश प्रेषित कीजिए।

## SUBJECT – MATHEMATICS

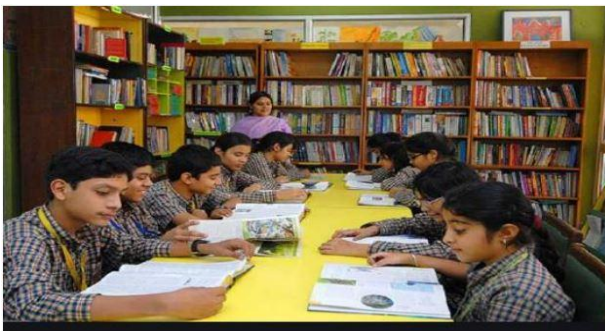
1. Solve for x and y:  $x/a=y/b$ ;  $ax + by = a^2 + b^2$ .
2. A man earns Rs.600 per month more than his wife. One-tenth of the man's salary and  $1/6$ th of the wife's salary amount to Rs.1,500, which is saved every month. Find their incomes.
3. The age of the father is twice the sum of the ages of his 2 children. After 20 years, his age will be equal to the sum of the ages of his children. Find the age of the father.
4. The angry Arjun carried some arrows for fighting with Bheeshm. With half the arrows, he cut down the arrows thrown by Bheeshm on him. Six arrows, he used to kill the

rath driver of Bheeshm. With one arrow each he knocked down respectively the rath, flag and the bow of Bheeshm. Finally, with one more than four times the square root of arrows he laid Bheeshm unconscious on an arrow bed. Find the total number of arrows Arjun had.

5. One fourth of a herd of camel was seen in forest. Twice the square root of the herd had gone to mountain and the remaining 15 camels were seen on the banks of a river. Find the total number of camels.
6. At a certain time in a zoo, the number of heads and the number of legs of tigers and peacocks were counted and it was found that there were 47 heads and 152 legs. Find the number of tigers and peacocks in the zoo. Why it is necessary to conserve these animals?
7. Determine the value of  $m$  and  $n$  so that the following pair of linear equations  $(2m - 1)x + 3y = 5$ ;  $3x + (n - 1)y = 2$  have infinite number of solutions.
8.  $\alpha$  and  $\beta$  are zeroes of the quadratic polynomial  $x^2 - 6x + y$ . Find the value of 'y' if  $3\alpha + 2\beta = 20$ .
9. Find a quadratic polynomial whose zeroes are reciprocals of the zeroes of the polynomial  
 $f(x) = ax^2 + bx + c$ ,  $a \neq 0$ ,  $c \neq 0$ .
10. If  $\alpha$  and  $\beta$  are the zeroes of polynomial  $p(x) = 3x^2 + 2x + 1$ , find the polynomial whose zeroes are  $(1-\alpha)/(1+\alpha)$  and  $(1-\beta)/(1+\beta)$ .
11. Prove that  $(\sin \alpha + \cos \alpha)(\tan \alpha + \cot \alpha) = \sec \alpha + \operatorname{cosec} \alpha$ .
12. If  $\sin \theta + \cos \theta = \sqrt{3}$ , prove that  $\tan \theta + \cot \theta = 1$ .
13. Prove that  $(\sqrt{3} + 1)(3 - \cot 30^\circ) = \tan 360^\circ - 2 \sin 60^\circ$ .
14. Prove that  $(\sin^4 \theta - \cos^4 \theta + 1) \operatorname{cosec}^2 \theta = 2$
15. If  $7 \sin^2 \theta + 3 \cos^2 \theta = 4$ , then, show that  $\tan \theta = \frac{1}{\sqrt{3}}$ , where  $\theta$  is an acute angle.

### **CASE BASED QUESTION:**

To enhance the reading skills of grade X students, the school nominates you and two of your friends to set up a class library. There are two sections- section A and section B of grade X. There are 32 students in section A and 36 students in section B.



1. What is the minimum number of books you will acquire for the class library, so that they can be distributed equally among students of Section A or Section B?
2. If the product of two positive integers is equal to the product of their HCF and LCM, is true then, find the HCF (32, 36).
3. Express the LCM in prime factors.
4. If  $p$  and  $q$  are positive integers such that  $p = ab^2$  and  $q = a^2b$ , where  $a, b$  are prime numbers, then find LCM ( $p, q$ ).
5. Define co-prime numbers.

### **PROJECT WORK:-**

The General Elections of 2024-25 are taking place in different phases throughout the country. Conduct a survey on the number of major parties taking part in the elections covering the following points--

1. Number of major parties taking part in the election along with their election symbol.
2. Number of candidates participating from each major party from Haryana.
3. Collect the data of candidate's age starting from 25- 30 till 80 -85. Find mean age of the candidates. Also find Mode and Median of the data collected.

### **SUBJECT – SCIENCE**

1. A converging lens of focal length 5 cm is placed at a distance of 20 cm from a screen. How far from the lens should an object be placed to form its real image on the screen?
2. An object 5 cm high is held 25 cm away from a converging lens of focal length 10 cm. Find the position, size and nature of the image formed. Also, draw the ray diagram.
3. At what distance should an object be placed from a convex lens of focal length 18 cm to obtain an image at 24 cm from it on the other side? What will be the magnification produced in this case?
4. The magnification produced by a spherical lens is +2.5. What is the nature of the image and lens?
5. What is the position of the image when an object is placed at a distance of 10 cm from a convex lens of focal length 10 cm?
6. What are endothermic and exothermic reactions? Give one example of each.
7. A small amount of ferrous sulphate was heated in a hard glass test tube.
  - (i) Write the equations involved in the reaction.
  - (ii) What type of reaction is taking place?
8. When a green compound is heated strongly, its colour changes to black and odour of burning sulphur is given out.
  - (i) Name the compound.

- (ii) State the type of reaction  
(iii) Write the chemical equation involved.
9. "Oxidation and reduction processes occur simultaneously ". Justify this statement with the help of an example.
10. Why silver articles turn black and copper items turn green after sometimes?
11. With a suitable diagram, explain the breathing mechanism in human beings.
12. Write the events of photosynthesis with its chemical equation.
13. Explain nutrition in Amoeba.
14. Why is the separation of oxygenated and deoxygenated blood required in mammals and birds?
15. What do you mean by double circulation in human?
16. Prepare a colourful project on the components of transportation in human.

## **SUBJECT – SOCIAL SCIENCE**

### **Subject Enrichment:**

I. On the basis of famous painting by Frederic Sorrieu 1848 – "The dream of worldwide Democratic and Social Republics" present an analytical description of the picture not more than 100 words and it should be original piece of work.

### **Portfolio**

II. Prepare a visual representation on A4 size sheet on the topics given below using your painting skills, sketching or through a collage: -

- |                               |                       |
|-------------------------------|-----------------------|
| 1) Chauri-Chaura incident.    | Roll Number 1 to 5    |
| 2) Champaran Satyagraha.      | Roll Number 6 to 10   |
| 3) Jallianwala Bagh massacre. | Roll Number 11 to 15  |
| 4) Kheda Satyagraha.          | Roll Number 16 to 20. |
| 5) Ahmedabad Satyagraha.      | Roll Number 21 to 25  |
| 6) Salt Satyagraha.           | Roll Number 26 to 30  |
| 7) Quit India Movement.       | Roll Number 31 to 35  |
| 8) Go Back Simon.             | Roll Number 36 to 40  |

III 1. Define the term Resource.

2. What is Waste Land?
3. Which Soils are formed at the foothills?
4. When and where was the First International Earth Summit held?
5. In which state is Land degraded due to mining?

6. Give one characteristic of forest soil.
7. What is strip cropping?
8. How does Soil erosion take place due to defective methods of farming?
9. Which are the border states of India?
10. State one special problem of Brussels.
11. What is Majoritarianism ?
12. What is horizontal distribution of powers?
13. What was the result of policy of Majoritarianism?
14. Which language is spoken by majority of Sri Lanka?
15. What is the moral reason of power sharing?
16. Write any one demand of Sri Lankan Tamils.
17. Define economic development.
18. What is sustainable development?
19. Distinguish between economic development and economic growth.
20. What is per capita income?
21. Define Net Attendance Ratio.
22. Development for one may be destruction for the other. Give one example to support the statement.
23. What are renewable and non- renewable resources?
24. Why do different people have different notions of development?

### **PROJECT**

Prepare a project on any one of the following -

- a) Consumer awareness
- b) Social issues
- c) Sustainable development

### **SUBJECT- INFORMATION TECHNOLOGY**

I. Prepare your record file

II. Project File

Make a PPT or a Document file according to the following Roll numbers

Roll No- 1-10 Five famous IT companies

Roll No- 11-20 Five Documentation Software

Roll No- 21-30 Five Spread sheet Software

Roll No- 31-40 Five Communication Skills

III. Learn and write the following topics in school notebook -

1. Stress
2. Stress management
3. Six stress management techniques
4. Working independently
5. Self-regulation
6. Styles

7. Templates
8. Filters of image
9. Keep scale
10. Keep image size
11. Fill format mode
12. Arrangement
13. Alignment
14. Anchoring
15. Text wrapping
16. TOC
17. Buttons on structural line in TOC
18. Mail merge and its steps

### **SUBJECT- PHYSICAL EDUCATION**

**DO THE BELOW MENTIONED WORK IN PRACTICAL FILE-**

Volley ball – labelled diagram of court, equipments and rules in practical file.

#### **YOGA**

Do yoga Asana Practice every day for half an hour.

# Be Happy By Doing Good

1. Spare some time and help your mother in household work. Talk to your parents and elders and learn values.
2. Adopt the habit of reading newspaper and learn new words and expressions.
3. Read at least two books (Hindi & English) apart from prescribed syllabus.
4. Respect flora and fauna (Plants and Animals). Keep your home and surroundings clean. Plant at least 5 saplings.
5. Keep water for birds and stray animals outside your house or in balcony.
6. Food is equal to God. So avoid wasting of food.
7. Try to share your knowledge and donate old books and notebooks to the underprivileged and deprived children of your locality.
8. Maintain a diary in English & Hindi and write your experience along with daily routine during summer break. It will help you in enriching your vocabulary and writing skills.

**ENJOY YOUR SUMMER BREAK.....**

