ST. THOMAS SCHOOL, SAHIBABAD
HOLIDAY HOMEWORK 2024-25
CLASS X

TOPIC: SOCIAL ISSUES

Dear Students,

Please follow the guidelines enlisted below for the project work. At the same time use your imagination, read, explore and think 'out of the box' to make your project unique and meaningful.

GENERAL INSTRUCTIONS:

- Arrange all subject sheets in a single folder except Social Science.
- The Social Science project should be done in a separate folder.
- It must have a cover page.
- Label the file with your name, class, section, roll number and title of your project.
- Write "Multi-Disciplinary Project" above the title.
- Use colours according to the given colour code.

ENGLISH	HINDI/ SANSKRIT	MATHEMATICS	SCIENCE	SOCIAL STUDIES	COMPUTER
LIGHT BLUE	LIGHT YELLOW	LIGHT PURPLE	LIGHT BROWN	LIGHT GREEN	LIGHT PINK

- Pages should be arranged in the given sequence:

S. No.	SUBJECT	PAGE NO.
1.	Index	1
2.	Introduction	2
3.	Acknowledgement	3
4.	Bibliography	Last page of the project

- Arrange your sheets subject-wise, after acknowledgement.
- Submit your file to the respective class teacher.
- **The submission date is till 10th July.**
- Revise the PT-1 syllabus for all subjects.

ENGLISH

Taking clues from the newspaper prepare an analytical paragraph or write an article/letter to the editor on the given topics:

GROUP NO.	ROLL NO.	TOPIC
Group 1	1 to 6	Unemployment
Group 2	7 to 12	Population
Group 3	13 to 18	Corruption
Group 4	19 to 24	Poverty
Group 5	25 to till last	Cybercrime

HINDI

प्र०-1 कुछ मा र्मक प्रसंगों के आधार पर यह दिखाई देता है क 'बालगोबिन भगत प्रच लत सामाजिक मर्यादाओं को चुनौती देने की हिम्मत रखते थे'। बालगोबिन भगत पाठ में समाज में व्याप्त कन- कन रुढियों एवं कुरीतियों पर सीधे-सीधे प्रहार कया गया है? ल खए तथा इसके अतिरिक्त और कौन-कौन सी रुढियाँ हैं? इनका खंडन कसने कया है? वस्तार से ल खए।

MATHEMATICS

Solve the following in a separate notebook

1. In a school, the duration of a period in the junior section is 40 minutes and in the senior section is 1 hour. If the first bell for each section rings at 9.00 am, when will the two bells ring together again?
2. The LCM of the two numbers is 14 times their HCF. The sum of LCM and HCF is 600. If one number is 280, then find the other.
3. The set of Mathematics, Physics and Physical Education books have to be stacked in such a way that all the books are stored topic-wise. The number of Mathematics, Physics and Physical Education are 14, 18 and 22. Determine the number of stacks of each book provided that are of the same thickness.
4. Two integers p and q are expressed in powers of primes as p = $a^{15}b^{3}ef^{7}$ and q = $a^{4}bgc^{2}$ where a, b, c, d, e, f are primes. Find the HCF (p, q).
5. A, B and C start cycling around a circular path in the same direction at the same time. The circumference of the path is 1980m. If the speed of A is 330m/min, the speed of B is 198 m/min, and the speed of C is 220m/min and they start from the same point, then after what time will they be together at the starting point?
6. The HCF of 408 and 1032 is expressible in the form 1032m-2040. Find the value of m. Also, find the LCM of 408 and 1032.
7. If p and q are the zeroes of $x^2 + px + q$, then find the values of p and q.
8. Find the zeroes of the quadratic polynomial $4\sqrt{3}x^2 + 5x - 2\sqrt{3}$ and verify the relationship between the zeroes and the coefficients of the polynomial.
9. If $\alpha \; and \; \frac{1}{\alpha}$ are the zeroes of the polynomial $4x^2 - 2x + (k - 4)$, find the value of k.
10. If α, β are the zeroes of the polynomial p(x) = $2x^2 - 5x - 7$, find a polynomial whose zeroes are $2\alpha + 3, \; 2\beta + 3$
11. If α, β are the zeroes of the polynomial p(x) = $3s^2 - 6s + 4$, find the value of $\frac{\alpha}{\beta} + \frac{\beta}{\alpha} + 2(\frac{1}{\alpha} + \frac{1}{\beta}) + 3\alpha\beta$.
12. If α, β are the zeroes of the polynomial, such that $\alpha + \beta$ = 6 and $\alpha\beta$ = 4, then write the polynomial.
13. A number is chosen at random from the numbers -3, -2, -1, 0, 1, 2, 3. What will be the probability that the square of this number is less than or equal to 1?
14. Two different dice are thrown together. Find the probability that the number obtained (a) a sum less than 7 (b) a product less than 16 (c) is a doublet of odd numbers.
15. A number ‘a’ is selected from the number (2, 3) and then a second number ‘b’ is selected from (1, 3, 7). What is the probability that the product ‘ab’ of two numbers is greater than 9?
16. The probability of selecting a red ball at random from a jar that contains only red, blue and orange balls is $\frac{1}{4}$. The probability of selecting a blue ball at random from the same jar is $\frac{1}{3}$. If the jar contains 10

orange balls, find the total number of balls in the jar.

17. 20 tickets, on which numbers 1 to 20 are written are mixed thoroughly and then a ticket is drawn at random out of them. Find the probability that the number on the drawn ticket is (a) a multiple of 3 or 7 (b) a multiple of 3 and 7.
18. All red face cards are removed from a pack of playing cards. The remaining cards were well shuffled and then a card was drawn at random from them. Find the probability that the drawn card is (a) a red face card (b) a face card (c) a card of the club
19. In a two-digit number, the ten's digit is three times the unit's digit. When the number is decreased by 54, the digits are reversed. Find the number.
20. Draw the graphs of the following equations 2x-y=1, x+2y=13 (a) Find the solution of the equations from the graph (b) Determine the coordinates of the vertices of the triangle formed by these lines and the y-axis, and shade the triangular region.
21. If 51x +23y =116 and 23x+ 51y =106, then find the value of x-y.
22. Find out whether the following pair of equations is consistent or inconsistent. $\frac{4}{3}$x + 2y = 8, 2x+3y = 12
23. Solve the following pair of linear equations using the elimination method.

    $x - y + 1 = 0$, $\quad 4x + 3y - 10 = 0$
24. Find whether the lines representing the following pair of linear equations intersect at a point, parallel, or coincident 2x - 3y + 6 = 0, 4x - 5y + 2 = 0
25. Given a linear equation 3x-5y=11. Form another linear equation in these variables such that the geometric representation of the pair so formed is (a) intersecting lines (b) coincident lines (c) parallel lines.

II **Project**

1. (i) How has the population of our country changed over the past decade and what mathematical methods can be used to analyse and predict its future growth?
   (ii) Compare population rates of our country from 2000 to 2020 by using the graphs Histogram and frequency polygon.

SCIENCE:

1. '**Our resources cannot keep pace with the ever-increasing population'**. Give three examples with illustrations in support of this statement.

SOCIAL SCIENCE

PROJECT WORK

The class is divided into **THREE** groups:

GROUP NO.	ROLL NO.	TOPIC
Group 1	1 to 12	Consumer Awareness
Group 2	13 to 24	Sustainable Development
	25 to till Last	Social issues (Any Three-Poverty, Unemployment, Corruption, Overpopulation, Literacy)

Note: A separate file has to be made for Social Science.

INFORMATION TECHNOLOGY

Instructions

All practicals must be numbered and the title should be specified.

Right Side- (i) Title

(ii) Software- Features

(iii) Stepwise explanation of the project.

Left Side [plain page]- Paste the printout of the practical.

PRACTICAL 1: DESIGNING TEMPLATE

Design your letter pad on the 5 C's of cybersecurity—Change, Continuity, Cost, Compliance, and Coverage. Save it as your template. Reset the default template as your letter pad.

PRACTICAL 2: (A) Design a table on Cybersecurity careers. (Roll No. 1 to 17).

(B) Design a table on types of Antivirus Software. (Roll No. 17 to last).

PRACTICAL 3: **IMPLEMENTING MAIL MERGE**

Design an invitation letter to be sent to the employees of your Company on **CYBER SECURITY WORKSHOP**. Create a recipient list/data source of 10 employees and merge the fields in the letter.

Instructions

- Design the letter and format it.
- Take the printout of the Data Source.
- Take the printout of the letter with the insert merge field.
- Briefly explain the steps of mail merge.

PHYSICAL EDUCATION

1. Prepare a detailed project report on any one of the following sports:

a) Athletics

b) swimming

2. Differentiate between indoor and outdoor games with examples.

ART EDUCATION

1. Make beautiful modern art on an A2 size ivory sheet using acrylic colours.

2. Make a beautiful paper bag using a full-size handmade sheet and decorate it.