

Hodi Public School, Siliguri
Summer Holiday Assignment
Class 10

ENGLISH :

Refer to your Grammar Book and solve the following:

Passage 9 (Page 19)

Exercise 8 (Page 402)

Exercise 17 (Page 407)

Exercise 2 (Page 411)

Exercise 3 (page 415)

Letter Writing

Write a short theme (40 words), summary (120 words) and question answers of the following chapters:

Nelson Mandela : Long Walk to Freedom

Two Stories of Flying (Part 1 & Part 2).

HINDI :

पुस्तक - नया रास्ता लेखिका - सुषमा अग्रवाल - प्रकाशक- इंटर यूनिवर्सिटी प्रेस

BENGALI :

আলোবাবু, জ্ঞানচক্ষু, একাকারে, রাজকাহিনী, শিলাদিত্য, গোহ, বাপ্পাদিত্য

ব্যাকরণ - সমাস, সন্ধি

অ্যাসাইনমেন্ট - বনফুলের ছোট গল্প

NEPALI :

मन बहादुर मुखिया, तुलसी अपतन (अध्ययन कार्य)

MATHEMATICS

SECTION A

1] A sweet seller has 420 *kaju barfis* and 130 *badam barfis*. 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 maximum number of *barfis* that can be placed in each stack for this purpose?

2] There is a circular path around a sports field. Sonia takes 18 minutes to drive one round of the field, while Ravi takes 12 minutes for the same. Suppose they both start at the same point and at the same time, and go in the same direction. After how many minutes will they meet again at the starting point?

3] Prove that $3 + 2\sqrt{5}$ is irrational.

4] Express the GCD of 48 and 18 as a linear combination.

5] Find the largest possible positive integer that will divide 398, 436, and 542 leaving remainder 7, 11, 15 respectively.

6] Use Euclid's algorithm to find the HCF of 4052 and 12576.

POLYNOMIAL

7] Find a quadratic polynomial whose zeroes are $5 + 3\sqrt{2}$ and $5 - 3\sqrt{2}$.

8] Find the value for K for which $x^4 + 10x^3 + 25x^2 + 15x + K$ exactly divisible by $x + 7$.

9] If two zeros of the polynomial $f(x) = x^4 - 6x^3 - 26x^2 + 138x - 35$ are $2 \pm \sqrt{3}$. Find the other zeros.

10] If α & β are the zeroes of the polynomial $2x^2 - 4x + 5$ then find the value of

a. $\alpha^2 + \beta^2$ b. $1/\alpha + 1/\beta$ c. $(\alpha - \beta)^2$ d. $1/\alpha^2 + 1/\beta^2$ e. $\alpha^3 + \beta^3$

LINEAR EQUATION IN TWO VARIABLE

11] Determine the value of K for which the given system of linear equations has infinitely many solutions:

$$Kx + 3y = K - 3$$

$$2x + Ky = K$$

12] A boatman rows his boat 35 km upstream and 55 km downstream in 12 hours. He can row 30 km. upstream and 44 km downstream in 10 hours. Find the speed of the stream and that of the boat in still water. Hence find the total time taken by the boat man to row 50 km upstream and 77 km downstream.

13] Check graphically whether the pair of lines $3x + 2y - 4 = 0$ and $2x - y - 2 = 0$ is consistent. Also find the coordinates of the points where the graphs of the lines of equations meet the y-axis.

14] Solve for x and y

i]

$$\frac{1}{2(2x + 3y)} + \frac{12}{7(3x - 2y)} = \frac{1}{2}$$

$$\frac{7}{(2x + 3y)} + \frac{4}{(3x - 2y)} = 2 \text{ for } 2x + 3y \neq 0 \text{ and } 3x - 2y \neq 0$$

$$139x + 56y = 641$$

ii] $56x + 139y = 724$

15] Sum of the digits of a two-digit number is 9. When we interchange the digits, it is found that the resulting new number is greater than the original number by 27. What is the two-digit number?

Project

SECTION A : Roll Nos. 1 to 5 / SECTION B : Roll Nos. 1 to 3

1] Comparison of number of boys and girls in each house of our school by double bar graph.

SECTION A : Roll Nos. 6 to 11 / SECTION B : Roll Nos. 4 to 7

2] To represent the blood group of 10A and 10B by bar graph.

SECTION A : Roll Nos. 12 to 17 / SECTION B : Roll Nos. 8 to 12

3] To represent the student's height of class 10A and 10B by histogram.

SECTION A : Roll Nos. 18 to 23 / SECTION B : Roll Nos. 13 to 17

4] To represent the student's weight of class 10A and 10B by histogram.

SECTION B :

To be completed in notebook.

1] Prove that $\frac{2\sqrt{3}}{5}$ is irrational numbers.

2] Write whether $\frac{2\sqrt{45} + 3\sqrt{20}}{2\sqrt{5}}$ on simplification gives a rational or an irrational numbers.

3] For what value of K, (-4) is a zero of $P(x) = x^2 - x - (2k - 2)$.

4] Find the zeroes of the quadratic polynomial $4x^2 - 4x - 3$ and verify the relation between the zeroes and its co-efficient.

5] If the zeroes of the polynomial $x^2 + px + q$ are double in value to the zeroes of $2x^2 - 5x - 3$, find the values of p and q.

6] Quadratic polynomial $2x^2 - 3x + 1$ has zeroes as α and β . Now form a quadratic polynomial whose zeroes are 3α and 3β .

7] Obtain all the zeroes of $3x^4 + 6x^3 - 2x^2 - 10x - 5$, if two of its zeroes are $\sqrt{5/3}$ and $-\sqrt{5/3}$.

8] Solve for x, y. $\frac{ax}{b} - \frac{by}{a} = a + b$, $ax - by = 2ab$.

9] For what value of k will the following pair of linear equations have no solutions? $2x + 3y = 9$; $6x + (k - 2)y = (3k - 2)$

10] The sum of a two-digit number and the number obtained by interchanging the digit is 132. If the two digits differ by 2, find the number.

SCIENCE :

Worksheet given in the class to be completed.

SOCIAL SCIENCE : Consumer Awareness

As per instruction given in the class.

*Consumer Rights;

*Duties of Consumers;

*List of Standardisation Logo;

*Survey of 30 Households;

*Representation of data in Pie Chart or Bar Graph;

*Conclusion of Survey;

*Personal Experience.

#Raw Data [Questionnaire] to be attached along with the Project.

ART & CRAFT

Make any newspaper craft.

Materials required for Projects to be taken up during the year –

Old newspapers.

Fevicryl Shilpkar Clay - 2 packets

Earthen pot - 1

Fabric colour set (with golden colour inside) - 1

Fevicol tube - 1

Plaster of Paris - 1 kg

Hard Board - 1 (size 24 cm x 30 cm).

A piece of sponge - medium size

DATE OF SUBMISSION OF ASSIGNMENTS – 17.06.19.