

Class: $10^{\text {th }}$

## Subject: English

1) Read the newspaper daily and find out samples of the following and paste them in your English Grammar notebook:

- 5 reports
- 5 advertisements
- 5 posters

2) Writing skills (to be done in Grammar notebook):

- Write an Article on the topic "How Google controls the life of an average person!"
- Write a letter to the Editor of a national daily, drawing attention of the concerned authorities towards the long power cuts that your colony is facing, causing a lot of inconvenience to the students, the old and the sick.

3) Literature: (to be done in literature notebook)
A) Read the play "The Proposal". Write its summary

- Character sketch: Natalya, Lomov
- Theme
B) Read the following poems and write their summary and the poetic techniques used in the poem:
- Snowdrop
- My mother at sixty-six


## Mathematics

1. Find the zeroes of the quadratic polynomial
$x^{2}+7 x=12$, and verify the relationship between thw zeroes and cof ficients.
2. Find the zeroes of the polynomial $x^{2}-3$ and verify the relationship between the zeroes and coefficients.
3. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and coefficients:
a) $x^{2}-12 x+32$
b) $x^{2}+15 x+54$
c) $x^{2}-20 x+96$
d) $3 x^{2}-17 x+24$
e) $6 x^{2}+17 x+7$
f) $2 x^{2}-9 x-45$
4. Find the roots of following quadratic equation by factorization:
a) $x^{2}-4 q x+4 q^{2}=0$
b) $8 x^{2}-22 x-21=0$
c) $2 x^{2}+\frac{5}{3} x-2=0$
d) $21 \mathrm{x}^{2}-2 \mathrm{x}+\frac{1}{21}=0$
e) $15 t^{2}=41 t-14$
5. Solve by the method of completing the square:
a) $x^{2}-3 x-1=0$
b) $3 x^{2}-5 x-1=0$
c) $x^{2}-x-20=0$
d) $2 x^{2}=12-2 x$
e) $3 x^{2}=-7 x-2$
6. Solve by using the quadratic formula
A) $x^{2}-4 x+3=0$
B) $x^{2}+2 x-35=0$
C) $x^{2}-6 x=0$
D) $x^{2}-4 x-4=0$
E) $2 x^{2}+5 x+2=0$
F) $2\left(x^{2}+1\right)=7 x$
G) $2=12 x-9 x^{2}$
H) $3\left(y^{2}+1\right)=7 y$
7. Find the value of $k$ for each of the following quadratic equation so that they have two equal roots:
a) $2 x^{2}+k x+3=0$
b) $k x(x-2)+6=0$
8. comment upon the nature of roots of the following quadratic equation:
a) $5 x^{2}+12 x+10=0$
b) $\frac{4}{3} x^{2}-2 x+\frac{3}{4}=0$
c) $2 z^{2}-2 \sqrt{6} z+3=0$
9. Find the value of $\alpha$ such that the equation $(\alpha-3) x^{2}+4(\alpha-3) x+4=0$
10. The product of two consecutive integers is 306 , find the integers.
11. The product of ages of two sisters is 104. The difference between their ages is 5 . Find their ages.
12. 

a) The sum of the squares of three consecutive positive integers is 50 . Find the integers.
b) Find the two consecutive even numbers, the sum $f$ whose square is 64 .
13. The sum of two natural numbers is 8 , determine the number if the sum of their reciprocals is $\frac{8}{15}$.
14. Two numbers differ by 3 and their product is 270 . Find the numbers.
15. Divide 29 into two parts so that the sum of the squares of the parts is 425 .
16. A two digit number is such that the product of its digits is 35 . When 18 is added to the number, the digits interchange their places, find the number.
17. Two numbers differ by 3 and their product is 504 . Find the numbers.
18. The sum of the two numbers is 18 and the sum of their reciprocals is $\frac{1}{4}$. Find the numbers.
19. A two digit number is such that the product of its digits is 14 . If 45 is added to the number, the digit interchange their places. Find the number.
20. The sum of square of consecutive natural numbers is 421 . Find the numbers.

Project: Make a chart of properties of whole numbers, natural numbers, integers and Rational numbers.

## Science

## Physics

1. Complete all the chapter and worksheets that has been given in group and write down in a separate notebook. 9chapter-1)
2. Try to perform an experiment at home with a bulb, a magnet, water, copper wire, plastic glasses and salt. After performing, make a model on this Link given below

## https://youtu.be/XIf6s4QIVws

Copy this link, paste it in YouTube window, watch the video and do the experiment.
3. Write about one invention of noble price winner physicist with diagram and theory in a file.
4. Write about Renewable energy (Solar energy, wind energy etc.), explain and make diagrams in a file.

Attention, students must not copy each others files.

## Chemistry

1. Prepare Modern Periodic table or Long form of the periodic table on thermocole. First draw it on a glazed paper by using sketch pen of pink and grey colors and then paste on thermocole.
2. Make a free energy electric generator by using potato, salt and water.
3. Write three oxidation - reduction reactions on a white chart by using sketch pens of different colors.
4. Prepare colorful charts of 10-15 scientists and their inventions.
5. Learn two question/answers and then write on rough note books with parent's signatures and dates.

## Biology

Read the chapter: Life processes and control and coordination thoroughly and revise the syllabus done in the month of April and May. (make a separate notebook to note the important points)
A) Explain the following (write 50-100 words for each):

1. Nutrition (autotrophic and heterotrophic)
2. Photosynthesis
3. Nutrition in Amoeba
4. Human alimentary canal
5. Process of digestion of food in man
6. Functions of Liver and Pancreas
7. What is Dentition? Give the dental formula.
8. What are digestive glands?
9. Define digestion? Why is it necessary?
10. Balanced diet
11. Absorption
12. Role of intestinal juices
13. Mechanism of breathing in human beings
14. Respiration
15. Blood circulation in man
16. Working of human heart
17. Transportation of materials in plants
18. Blood clotting
19. What is pace maker?
20. Root pressure
21. Translocation

## 22. Artificial Kidney

23. Osmoregulation
24. Structure of human urinated system
25. Diffusion and osmosis
B) Differentiate between the following (at least 50 words)
26. Auricles and ventricles
27. Artery and vein
28. Erythrocytes and lymphocytes
29. Xylem and phloem
30. Aerobic and anaerobic respiration
31. Autotrophic and heterotrophic
32. Herbivores and carnivores
33. Light reaction and dark reaction
34. Holozoic and saprophytic nutrition
35. Respiration and photosynthesis
36. Extracellular and intracellular digestion

## Social studies

Project on Consumer Awareness (following are the points you have to write on)
-- Who is consumer?
-- Consumer exploitation
-- Responsibility of consumers
-- Consumer awareness
-- Consumer movement
-- Consumer protection act 1986
-- Jago Grahak Jago programme
Project should be done in A4 size coloured sheets.


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