Holiday Homework

Class : X

English

Q1. Suppose that you were on a morning walk and caught in a heavy storm, how did you manage to save yourself. Compose a story within 150 words.

Q2. Write the summary of the lesson "A Triumph of Surgery" in your own words.

Q3. Memorise all the answers from the chapters discussed so far.

विषय:हिंदी

(I)अपनी पाठ्यपुस्तक संचयन से 'हरिहर काका' तथा 'सपनों के से दिन' कहानी का अध्ययन करें।

(II)'लालच बुरी बला है' और 'सच्ची मित्रता' विषय पर लघु कहानी लिखें।

Biology :-

1. Describe an activity to show that light is necessary for photosynthesis.
2. Draw a labelled diagram to show the internal structure of a leaf.
3. Draw labelled diagrams to show ingestion, digestion, absorption, assimilation and egestion in Amoeba.
4. Do you know what is double circulation ? Draw a labelled diagram of the human heart.
5. Where are nephrons found ? What do you know about the functions of our kidneys ?

Chemistry :-

1. Name and define different types of chemical reactions with examples.
2. Compare between electrochemical and photochemical reactions.
3. Compare the tests for hydrogen gas and carbon-dioxide gas.
4. What is P^H scale ? Explain.
5. What is chlor-alkali process ? Explain in your words.

MATHS :-

1. Revise all chapters done so far.
2. Practice solved examples of chapter 1,2.
3. Complete given WORKSHEET .

Maths Work Sheet

Class - X

Chapter:- Polynomials

Q01 :} Find the Zeroes of the following quadratic polynomials and verify the relationship between the zeroes and the coefficients:-

a) $5x^2 - 29x + 20$
b) $2\sqrt{2}x^2 - 9x + 5\sqrt{2}$
c) $3\sqrt{3}x^2 - 19x + 10\sqrt{3}$
d) $x^2 - x - 72$
e) $x^2 - 2$
f) $x^2 - 5x$
g) $x^2 - 9$

Q02 :} Form the Quadratic polynomials whose zeros are:-

a) $3 \pm \sqrt{2}$
b) $-\sqrt{2}$ and $\sqrt{2}$
c) $\frac{1}{3}$ and $\frac{1}{4}$
d) -5 and -3
e) 3 and $\frac{1}{5}$
f) $\frac{1}{a}, \frac{1}{b}$

Q03 :} Find all the Zeroes of $x^3 + 6x^2 + 11x + 6$ if $(x + 1)$ is a factor.

Q04 :} Find all the Zeroes of $x^3 - 10x^2 + 31x - 30$ if 2 is a zero of it.

Q05 :} Find the values of a and b, if 2 and 3 are zeroes of $x^3 + ax^2 + bx - 30$.

Q06 :} Divide $x^4 - 4x^3 + 8x^2 + 7x + 10$ by $(x - 2)$ and verify the division algorithm.

Q07 :} Find the value of k if $(x - 2)$ is a factor of $x^2 - kx + 10$.

Q08 :} Find the value of k if 2 is zero of $3x^2 - 17x + k$.

Q09 :} Find all the zeroes of $4x^4 - 20x^3 + 23x^2 + 5x - 6$ if two of its zeroes are 2 & 3.

Q10 :} If α and β are the zeroes of $x^2 + 5x + 6$ find the value of $\alpha^{-1} + \beta^{-1}$.
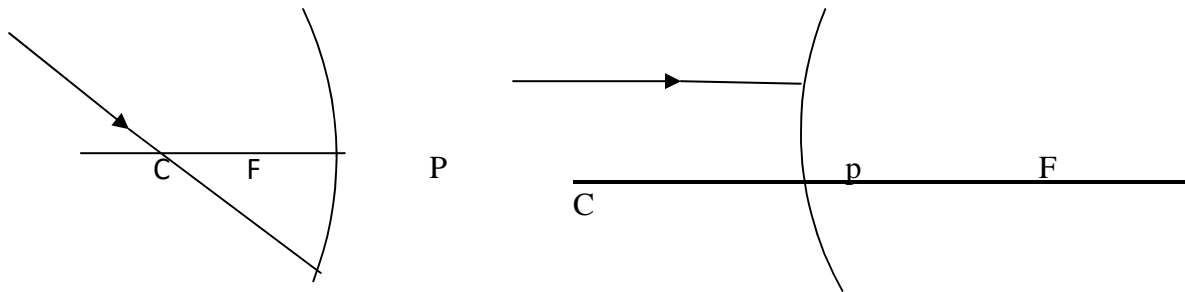
Q11 :} If $\frac{1}{2}$ and 1 are zeroes of $2x^4 - 3x^3 - 3x^2 + 6x - 2$, find the other zeroes.

Q12 :} If -5 and 7 are zeroes of $x^4 - 6x^3 - 26x^2 + 138x - 35$ find the other zeroes.

Physics Assignment   Chapter: Light-Reflection andRefraction

1. What is a mirror?
2. What is the focal length of a plane mirror?
3. Differentiate between real and virtual image.
4. What type of image is formed on a cinema screen?
5. A concave mirror is a part of sphere of radius 40 cm. What is the focal length of the mirror?
6. Radius of curvature of a mirror is 20 cm. What type of mirror is it?
7. Magnification of a mirror is +2/3. What type of mirror is it?
8. Complete the following diagrams:-

9. Magnification of a mirror is '-1'. What type of mirror is it? What is the position of objectand image? Give the nature of image.
10. Name the type of mirror used:-
    (i)   as a reflector in search light   (iii) by the dentist
    (ii)   as side view mirror in vehicles.   (iv) as a shaving mirror
11. Wherever you may stand in front of mirror, your image is always erect & same sized, whattype of mirror is it?
12. (a) A ray of light strikes the mirror at an angle of 20^0. What is the angle of reflection?
    (b) Give the angle of incidence and reflection for normal incidence.
13. A candle is kept in front of plane mirror at distance of 15 cm. What is distance betweencandle & its image?
14. Radius of curvature of a mirror is +24cm. Name the kind of mirror and give the characteristics of the image formed by it.
15. Define refraction.
16. State the laws of refraction.
17. Refractive index of water with respect to air is 1.33, what is refractive index of air withrespect to water?
18. Under what condition, the angle of refraction will be equal to the angle of incidence?
19. Refractive index of glass is 1.65, what is the speed of light in glass?
20. If refractive indices of alcohol & water are 1.36 and 1.33 respectively, which of the two isoptically denser?
21. **An object 2 cm in size is placed 30 cm in front of a concave mirror of focal length 15 cm. At what**

distance from the mirror should a screen be placed in order to obtain a sharp image? What will be the nature and the size of the image formed? Draw a ray diagram to show the formation of the image in this case.

22. The image of an object formed by a mirror is real, inverted and is of magnification -1. If the image is at a distance of 40 cm from the mirror, where is the object placed? Where would the image be if the object is moved 20 cm towards the mirror? State reason and also draw ray diagram for the new position of the object to justify your answer.

SOCIAL SCI :-

POLITICAL SCIENCE

1) What is power sharing and various forms of power sharing?

2) List any ten articles from Indian constitution.

3) Discuss union list, state list and concurrent list.

4) What is decentralisation and its merits?

5) Discuss three factors that determine the outcomes of politics of social divisions.

GEOGRAPHY

1) Describe the classification of soils?

2) How have technical and economic development led to more consumption of resources?

3) Write a note on good practices towards conserving forest and wild life.

4) Draw map of India showing major soil types.

History

1. Prepare a time line on the chapter Nationalism in India.

Economics

1. Write an article on Banking System of India.

COMPUTER :-

Make a power point presentation on communication, its types and do's and don'ts of body language while doing communication.