



BRAJKISHORE KINDERGARTEN, CHHAPRA
Session – 2024 - 2025
Home Work for Summer Vacation
Class – X

Name:.....Sec.....Roll No.....

English

1. Write the Summary of all taught chapters: - Prose 125 words Poem 60 words.
2. Learn the hard words – 10 from each taught stories. Use them in your own sentences mentioning parts of speech they belong to and tenses used.
3. Write a letter to the Branch Manager Axis Bank, Bhagwan Bazar, Branch Chhapra, informing about the change of residential address

हिन्दी

1. सूरदास के पद (काव्यखंड) एवं नेताजी का चश्मा (गद्यखंड) पाठ को ध्यानपूर्वक पढ़कर प्रश्नों के उत्तर याद करें।
2. व्याकरण की कॉपी में लिखें –
 - (i) अलंकार की परिभाषा एवं भेदों के नाम लिखकर याद करें।
 - (ii) उपमा एवं श्लेष अलंकार की परिभाषा उदाहरण सहित लिखें।
3. परियोजना कार्य – सुभाषचंद्र बोस का सचित्र जीवन-परिचय स्टिक फाइल में प्रस्तुत करें।

Maths

1. Find the HCF of 96 and 404 by prime factorization method. Find their L. C. M..
2. Explain why $7 \times 11 \times 13 + 13$ and $7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 + 5$ are composite numbers.
3. Check whether 6^n can end with the digit 0 for any natural number n.
4. Prove that $\sqrt{3}$ is an irrational number.
5. Prove that $\sqrt{2} + \sqrt{5}$ is irrational.
6. Prove that $3 + 2\sqrt{5}$ is irrational.
7. Find the zeroes of the polynomial $x^2 - 3$ and verify the relationship between the zeroes and the coefficients.

8. If one zero of the polynomial $(a^2 + 9)x^2 + 13x + 6a$ is reciprocal of the other. Find the value of a .
9. If α, β are the zeroes of the quadratic polynomial $f(x) = kx^2 + 4x + 4$ such that $\alpha^2 + \beta^2 = 24$. Find the value of k .
10. If α & β are the zeroes of the quadratic polynomial $f(x) = 2x^2 + 5x + k$, satisfying the relation $\alpha^2 + \beta^2 + \alpha\beta = \frac{21}{4}$ then find the value of k for this to be possible.
11. If α & β are the zeroes of the quadratic polynomial $f(x) = 2x^2 - 5x + 7$, find the quadratic polynomial whose zeroes are $2\alpha + 3\beta$ and $3\alpha + 2\beta$.
12. If α & β are the zeroes of the quadratic polynomial $f(x) = ax^2 + bx + c$, then evaluate $\frac{\alpha^2}{\beta} + \frac{\beta^2}{\alpha}$.
13. Solve the following system of equations graphically:
 $x - y + 1 = 0, x + y = 5$.
14. Solve for x & y by elimination method:
 (i) $ax + by - a + b = 0, bx - ay - a - b = 0$
 (ii) $\frac{5}{x} - \frac{3}{y} = 1, \frac{3}{2x} + \frac{2}{3y} = 5$ ($x \neq 0, y \neq 0$)
15. Solve for x & y by substitution method:
 (i) $\frac{3x}{2} - \frac{5y}{3} = -2 ; \frac{x}{3} + \frac{y}{2} = \frac{13}{6}$
 (ii) $4x + 6y = 3xy ; 8x + 9y = 5xy$ ($x \neq 0, y \neq 0$)
16. Find the values of a & b for which the following pair of linear equations have an infinite number of solutions:
 $2x + 3y = 7, (a - b)x + (a + b)y = 3a + b - 2$
17. Taxi charges in a city consist of fixed charges and the remaining depending upon the distance travelled in Kilometres. If a person travels 60 km, he pays Rs. 960 and for travelling 80 km, he pays Rs. 1260. Find the fixed charges and the rate per kilometre.
18. The difference of two numbers is 4 and the difference of their reciprocals is $\frac{4}{21}$. Find the numbers.

19. The students of a class are made to stand in rows. If 4 students are extra in each row, there would be 2 rows less. If 4 students are less in each row, there would be 4 rows more. Find the number of students in the class.

20. A boat goes 16 km upstream and 24 km downstream in 6 hours. Also, it covers 12 km upstream and 36 km downstream in the same time. Find the speed of the boat in still water and that of the stream.

Project : - Write a note on the Great Mathematician “Srinivasa Iyengar Ramanujan”.

Science

Physics

1. What is a spherical mirror? Distinguish between a concave mirror and a convex mirror.
2. If the radius of curvature of a spherical mirror is 20 cm. What is its focal length?
3. Write the rules for obtaining images formed by concave mirror with the help of a ray diagram.
4. Draw the ray diagram for the image formation by a concave mirror when an object is placed between focus and centre of curvature,
5. What type of mirror is used by dentists? How does it help?
6. Find the size, nature and position of image formed when an object of size 1 cm is placed at a distance of 15 cm from a concave mirror of focal length 10 cm.
7. When an object is placed at a distance of 50 cm from a concave mirror, the magnification produced is $-\frac{1}{2}$. Where should the object be placed to get a magnification of $-\frac{1}{5}$?
8. Which type of mirror is usually used as a rear-view mirror in cars and why?
9. The magnification produced by a plane mirror is +1. What does this mean?
10. Draw the ray diagram for the image formation by a convex mirror when an object is placed between pole and infinity in front of a convex mirror.

Project: - Write a note on The Great Scientist “Einstein” and put in a stick – file.

Chemistry: -

1. What is balanced chemical equation? Why should chemical equation be balanced?
2. What does one mean by 'exothermic reaction' and 'endothermic reaction'? Explain with it an example.
3. Why are 'decomposition reactions' called the opposite of 'combination reactions'? Explain with examples.
4. Translate the following statements into chemical equations and balance them –
 - (i) Hydrogen gas combines with nitrogen to form ammonia.
 - (ii) Hydrogen sulphide gas burns in air to form water and sulphur dioxide.
 - (iii) Barium chloride reacts with aluminium sulphate to give aluminium chloride and a precipitate of barium chloride.
 - (iv) Potassium metal reacts with water to give potassium hydroxide and hydrogen gas.
5. Which gas is usually liberated when an acid reacts with a metal? Illustrate with an example. How will you test for the presence of this gas?
6. What happens when acid and base react together? Give examples

Biology –

Note – Write the question and answer in a separate copy.

1. Explain the process of nutrition in amoeba.
2. Which organ produces bile juice? What is its function?
3. Explain the significance of photosynthesis, write the balanced equation for photosynthesis.
4. Explain the process of digestion of food in mouth, stomach and small intestine in human body?
5. Write 3 points of difference between breathing and respiration.
6. Draw a flow chart to show the breakdown of glucose of various pathways.
7. Draw a diagram of human respiratory system.

Economics

Write and learn the answer of the given questions in c.w. copy.

1. 'Conflicting goals can also be developmental goals.' Elaborate with examples.
2. What are common developmental goals? Give any two suitable examples of common developmental goals.
3. "Money can not buy all the goods and services that one needs to live well." Do you agree with this statement? Justify your answer with any three suitable arguments.
4. Why do different person have different notion of development? Which of the following explanations are more important, why?
 - (a) Because people are different
 - (b) Because life situations of persons are different
5. Explain any five fields other than income where development is needed?
6. Explain with reasons why state of Punjab with a very high per capita income has a low literacy rate.

Chapter – 2

Sectors of the Indian Economy

1. Classify the economy on the basis of : -
 - (i) Ownership of enterprises
 - (ii) The nature of the activity
2. What is disguised unemployment?
3. Explain how public sector contributes to the economic development of nation.
4. Why is NREGA also called the Right to Work? Explain the objectives of National Rural Employment Guarantee Act 2005.
5. With the example of sugarcane explain the interdependence of all the three sectors of the economy.
6. The problem of unemployment is not confined only to agriculture. Support the statement with examples.
7. What are final goods and intermediate goods? How do they help in calculating GDP.
8. Explain any 3 ways to solve the problem of underemployment.
9. Describe the importance of primary sector in the Indian Economy.
10. There are several things needed by the society as a whole. In the light of this statement explain as to who can provide them at a reasonable cost, the private or the public sector and why?

*Complete the Notes of Chap. – 2.

Geography

Write and learn the answer of the given questions in c.w. copy.

1. "Resources are a function of human activities Justify this statement.
2. How are natural resources important for man? Give five points.
3. List the problems which resulted due to indiscriminate use of resources by man.
4. Discuss the factors that contribute to the formation and fertility of soils?
5. What do you mean by 'Sustainable economic development'.
6. How are overgrazing and over irrigation responsible for land degradation?
7. Explain three stages of resource planning.
8. Resource planning is essential for sustainable existence. Give reasons.
9. Prepare the notes of the chapter – 1 "Resources and Development".

Civics

A. Write and learn the answer of the given questions in c.w. copy.

1. Which community was rich in Belgium?
2. Which system of Power sharing called checks and Balances?
3. Who elects the community government in Belgium?
4. What is meant by 'vertical division of Power'?
5. Why is power sharing most important for a Democracy?
6. What are the different forms of power sharing in Modern democracies? Give an example of each of these.

B. Prepare the notes of the chapter – 01 "Power Sharing".

History

A. Write and learn the answer of the given questions in c.w. copy.

- (i) What is meant by Nationalism?
- (ii) Briefly describe the concept of liberalism.
- (iii) List any three features of the civil code of 1804 usually known as the Napoleonic code.
- (iv) How did the local people in the areas conquered by the Napoleon react to French rule?
Explain
- (v) Explain what is meant by the 1848 revolution of the liberals.
- (vi) Why were 1830s called the years of great economic hardship in Europe? Give any three reasons.
- (vii) Write a short note of Giuseppe Mazzini.

B. Prepare the notes of the chapter – 01 “The Rise of Nationalism in Europe”.

Computer

1. Write any two differences between a server and web server.
2. What is the difference between Web Portal and Website?
3. Project: Write the HTML program of a Webpage using
, <HR>, <SUP>, <SUB>, , <I>, <U>, <CENTER>, <RIGHT>, <LEFT> & <JUSTIFY> tags.