



BHRIGU PRABHA CENTRAL SCHOOL

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CLASS-X

SUMMER VACATION HOME WORK 2025-26

Dear Students

Summer Vacation is a welcome break but Good Habits and Good Manners are life long assets and manners must be practiced until they become a habit.

Four magic words that are basics of good manners are – Please, Thank you, Excuse me and Sorry. Make these four words a habit and see the difference.

Try to practice theses manner –

Manners :

At home :

- Help to keep the house clean especially the areas you use. Clear the toys, books or crafts that remain after you have finished.
- Honesty is the best policy. Tell the truth at all times.
- Be polite.
- Share the T.V. time. So not sit too close while watching T.V.
- Be fair with your friends, brothers and sisters.
- Be responsible.

At the dining table :

- Take small helping and refill, clean your plate up.
- Take small bites, eat neatly, slowly with your mouth closed.
- Help to clear the table and clean up.

In the park :

- Littering makes the park untidy.
- Destroying the plants or plucking the flowers will spoil the beauty.
- Wait for your turn on swing and slides.

At a party :

- Wish the host.
- Don't mess up somebody's house.

While shopping :

- Softly ask your parent for what you want. If refused, don't throw a tantrum.
- Be careful, don't touch any breakable item.

On the telephone :

- If there are no elders around, don't let the phone ring long, answer it.
- Talk softly when someone is speaking on the phone and don't interrupt.

Hygiene :

- Brush your teeth twice a day.
- Do trim your nails often.
- Do not waste water and electricity.
- Keep your surroundings and environment clean. It is bad habit to throw things out of the window, car or a balcony.

- Make friends having good habits who respect their elders and use good language.
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ASSIGNMENT AND SPECIAL ASSIGNMENT FOR THE
SESSION 2025-2026

Mathematics

Solve the following

1. $\frac{3}{2x} + \frac{2}{3y} = 5$ and $\frac{5}{x} - \frac{3}{y} = 1$
2. $7x - 2y = 5xy$ and $8x + 7y = 15xy$
3. $a(x+y) + b(x+y) = a^2 - ab + b^2$ and $a(x+y) - b(x-y) = a^2 + ab + b^2$
4. $\frac{x}{a} + \frac{y}{b} = a+b$ and $\frac{x}{a^2} + \frac{y}{b^2} = 2$
5. Solve graphically $4x - 3y + 4 = 0$ and $4x + 3y - 20 = 0$. What is the area of the triangle enclosed by the given lines and the x-axis?
6. Find the values of a & b for which the following system of linear equations has infinite solutions;
 $2x - 3y = 7$ and $(a + b)x - (a + b - 3)y = 4a + b$
7. Solve for x:
 $\frac{1}{x-3} - \frac{1}{x+5} = \frac{1}{6}$, $x \neq 3, -5$.
8. Solve for x:
 $\frac{1}{x} - \frac{1}{2x-2} = \frac{1}{x-2}$, $x \neq 0, \frac{3}{2}, 2$.

9. Solve $\frac{1}{2a+2b+2x} = \frac{1}{2a} + \frac{1}{2b} + \frac{1}{2x}$, $x \neq 0$, $x \neq -(a+b)$

Section-A PHYSICS

1. The laws of reflection hold true for
 - a. Plane mirrors only
 - b. Concave mirrors only
 - c. Convex mirrors only
 - d. All reflecting surface
2. When an object is kept within the focus of a concave mirror, an enlarged image is formed behind the mirror. This image is
 - a. Real
 - b. inverted
 - c. Virtual and inverted
 - d. virtual and erect
3. An object is placed at a distance of 12cm in front of a concave mirror of radius of curvature 30 cm. List four characteristics of the image formed by the mirror.
4. The linear magnification produced by a spherical mirror is +3. Analyse the value and state the (i) type of mirror and (ii) position of the object with respect to the pole of the mirror. Draw a ray diagram to show the formation of image in this case.
5. Draw ray diagrams for the following cases when a ray of light:
 - (i). passing through centre of curvature of a concave mirror is incident on it.
 - (ii). parallel to principal axis is incident on convex mirror.
 - (iii). is passing through focus of a concave mirror incident on it.
6. An object 4 cm in height, is placed at 15 cm in front of a concave mirror of focal length 10 cm. At what distance from the mirror should a screen be placed to obtain a sharp image of the object. Calculate the height of the image.
7. Explain the refraction of light through a prism.
8. Explain the dispersion of white light by a glass prism.
9. Explain the following terms:
 - a. Scattering of light.
 - b. Power of accommodation
 - c. Myopia defect.
 - d. Hypermetropia defect.

Section –B BIOLOGY

1. What is photosynthesis? Name the raw materials required for it.
2. Differentiate between autotrophs and heterotrophs with one example each.
3. What is the role of saliva in the digestion of food?
4. Why is respiration considered an exothermic process?
5. What is the function of the diaphragm in the process of breathing?
6. Explain the process of photosynthesis in plants with the help of a word equation and diagram.
7. Describe the nutrition in amoeba with the help of a labelled diagram.
8. Explain the digestion process in humans, naming all major organs involved and their functions.
9. Compare aerobic and anaerobic respiration. Give examples of organisms that perform each type.
10. Describe the mechanism of breathing in humans. How are inhalation and exhalation different? Include the role of the diaphragm and rib cage.

ENGLISH

1. Your grandfather is very upset about the rising prices and keeps thinking of his olden times when things were very cheap. You are convinced that inflation has made life difficult for common man. Write a letter in 100-120 words to the editor of a national daily describing the difficulties faced by poor families.
2. You are Sanjeet of 122, Arjun Nagar, New Delhi. A number of scooters and cars are parked in your locality without any order, causing blockage of the streets. Write a letter to the local Secretary of the Resident's Association complaining against this problem.
3. Answer the following questions on the basis of your understanding of the passage
Share market is such a market where people invest crores of rupees every day. The stock market is another name for the share market. Here, people buy and sell shares of those companies which are already listed in this market.
There are many applications on Google Playstore to invest money in the share market. Zerodha is one of the most popular ones. It's a very risky market. Those who are intelligent investors invest money only after estimating the P/E (Price to Earnings) ratio.
Many intelligent people came to this market to make money, but a few got success. There happened many scams in this market. The most popular scam was

the Harshad Mehta scam in 1992. Harshad Mehta was an Indian stockbroker who was involved in the scam of 1992.

A film was made on Harshad Mehta's scam, in which all his characters were shown well. The name of the movie was 'Scam 1992'.

Questions –

- (i) Who are intelligent investors?
 - (ii) What is the share market?
 - (iii) Who was Harshad Mehta?
 - (iv) What is Zerodha?
 - (v) What is the name of the movie related to the Harshad Mehta scam?
4. Read the paragraph given below and fill in the blanks with options that follow:
Amitabh Bachchan is (a)_____ (one/two/a/of) of the greatest actors this country has produced. His fluency, his gift of timing, his command (b) _____ (of/over/off/upon) the language is unparalleled,
(c)_____ (never/otherwise/always/sometimes) his histrionic talents too are among the (d)_____ (best/better/worst/good) this country (e)_____ (was/have/has/had) produced. Even now he (f) (has/had/have/is) to be the most popular actor of the country.

HINDI

1. कबीर के दोहे लिखकर उनके भाव स्पष्ट कीजिए (कोई भी 3 साखी चुनें)।
2. एक रंगीन पोस्टर बनाएं – जिसमें एक प्रसिद्ध साखी हो और उसका जीवन में उपयोग बताएं।
3. अपने पाठ्य पुस्तक से दो मुख्य पात्रों (बड़े भाई साहब और छोटे भाई) का तुलनात्मक वर्णन 150 शब्दों में कीजिए।
4. पाठ के आधार पर यह लिखिए कि "अनुभव और उम्र में क्या अंतर होता है?" (80-100 शब्द)
5. हरिहर काका की कहानी को 200 शब्दों में संक्षेप में लिखिए।
6. यह बताइए कि आज के समय में बुजुर्गों के साथ कैसा व्यवहार किया जाना चाहिए? (100 शब्दों में)
7. अपनी कॉपी में कहानी से जुड़ा कोई एक दृश्य चित्र सहित बनाइए या चिपकाइए।
8. नीचे दिए गए शब्दों से 5-5 पदबंध बनाइए:

जल जीवन

समय

मित्र

सफलता

9. 10 ऐसे वाक्य लिखिए जिनमें अलग-अलग प्रकार के पदबंधों का प्रयोग हो।
10. "मेरे जीवन में भाई-बहन का महत्व" विषय पर 150 शब्दों में निबंध लिखिए।
11. कबीर दास पर एक लघु जीवन परिचय (100 शब्दों में) तैयार कीजिए।

S.St

Geography

Concept-Based Questions:

1. What do you understand by sustainable development? Why is it important?
2. Explain the difference between renewable and non-renewable resources with examples.
3. Define soil erosion. Mention two causes and two preventive measures.
4. What are the causes of land degradation in India? Suggest two ways to solve this problem.

Map Work-Based Question:

5. On an outline map of India, locate and label the following:

Types of soils in different regions (Alluvial, Black, Red, Laterite, Desert, and Mountain soil)

Civics

Concept-Based Questions:

6. What is majoritarianism? How did it affect Sri Lanka?
7. How is power shared among different organs of the government in India?
8. Compare the power-sharing arrangements in Belgium and Sri Lanka.
9. Why is power sharing considered a good practice in democracy?
10. How can we say that power sharing is desirable?

Note/Suggestion :-

- It is suggested to all the students that you must make a fair copy of your prescribed subject. The handwriting should be beautiful and clear.
- Be sure to practice Que. & Ans. of all the chapters in your fair copy.

BPS