



SHIKSHA BHARATI GLOBAL SCHOOL  
DWARKA



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**Dear Children,**

It is blazing hot in summer and we begin to look forward for our summer vacations when we can relax and spend quality time with our family, friends and excursions.

Try to develop new skills that will enhance your knowledge and will be lessons for a lifetime. It will be great if you keep some semblance of academics alive in the fun.

**Guidelines for students:**

1. Ensure timely submission of the given assignment after the school reopens. Remember, a well-presented holiday homework fetches your accolades.
2. Revise all the topics which have been taught by your subject teachers in the new session.
3. Books are companions of lifetime. Read good books, novels, short stories, travelogues etc. During your summer holidays.
4. Take up an activity at home that is joyful and excites you like sketching, painting, learning any musical instrument, gardening etc.

**Guidelines for the parents:**

1. Communication skills play a pivotal role in grooming the holistic personality of the children. Please converse with your children preferably in English to acquaint them with the language skills.
2. Please spend quality time with your children engaging them in activities based on enhancing their powers of observation, imagination and creativity.
3. Please sensitize your child about the rich culture and heritage by watching different informative channels, videos or reading books.

**Stay Healthy**

**Wishing you all a very enjoyable and fun-packed Summer Holidays**

**Manisha Kaushal**  
**Principal**

# SUMMER BREAK HOLIDAY HOMEWORK

Class: X

## COMMUNITY AND SOCIAL SERVICE

Dear children,

As per the guidelines of CBSE, all the students are informed to do Community Service and Social Service during their Summer Vacation individually.

Students have to do this service on an individual basis. Submit a report and photographs on accomplishment of the task to your Class Teacher. Weightage of this work will be added in your academic performance.

Students can select community service from the below given fields: -

1. Park Cleanup Drive
2. Tree Plantation Drive
3. Visit to Old Age Homes. Spending time with senior citizens and providing assistance.
4. Teaching underprivileged children
5. Book Donation Drive
6. Fitness Programme for Seniors
7. Animal Shelter Support
8. Water and air pollution prevention
9. Health and hygiene awareness etc.



## English

(1) Write 50 words with meaning and make sentences of each word. And make it's cover in a different shape.

(2) Solve 1 to 3 Test Assignments of (Factual Passage) in book ( CBSE Practice Papers in Communicative English).

(3) Write all poetic devices used in poem - 1, 2 & 3.

(4) Write the following character sketch in 150 words with pictures.

(i) Lencho, the farmer (ii) The Postmaster (iii) James Herriot, the narrator (iv) Mrs. Pumphrey (v) Nelson Mandela

(5) Write a letter to the editor of a national newspaper on the importance of education in the holistic personality development and nation building. You are Rohini Das/Rishabh Das of 11, Preet Vihar, Jaipur.

(6) You are Saroop Krishna, a student of S.A. Jain College. You have just returned from an extensive tour of the famine stricken areas of Haryana. Write a letter to the editor of The Tribune, Chandigarh, to the public for funds to help the (famine) victims of Rajasthan and border areas of Haryana.

NOTE: Do all questions from 3 to 6 on A4 Size Sheet colour paper.

## विषय: हिंदी

निर्देश: सारा कार्य गृहकार्य पुस्तिका में कीजिए।

प्रश्न 1 निम्नलिखित विषयों पर संकेत बिन्दुओं के आधार पर लगभग 100 शब्दों में अनुच्छेद लिखिए।

(क) ऑनलाइन खरीदारी :समय की बचत

\* ऑनलाइन खरीदारी से अभिप्राय

\*बदलते समय की आवश्यकता

\*खरीदारी करते समय संयम की आवश्यकता \*खरीदारी के समय सावधानियाँ

(ख) स्वतंत्रता का अमृत महोत्सव \*अमृत महोत्सव का अर्थ \*इस महोत्सव में होने वाले समारोह

\*इस महोत्सव का महत्व

(ग) करत करत अभ्यास के जड़मति होत सुजान \*अभ्यास का अर्थ \*महत्व \*उदाहरण

प्रश्न 2 (क)आपके बैंक खाते में गलती से ₹5000 की राशि अधिक आ गई है। इसकी जानकारी बैंक अधिकारी को ई मेल लिख कर दीजिए।

(ख) प्रत्येक सप्ताहांत में विद्यालय में योग कक्षाएं आयोजित करने का अनुरोध करते हुए विद्यालय के प्रधानाचार्य को पत्र लिखिए।

(ग) आपके मोहल्ले की नालियों की ठीक से सफाई नहीं हो रही है। इसकी शिकायत करते हुए नगर निगम के स्वास्थ्य अधिकारी को पत्र लिखिए।

प्रश्न -3 निम्नलिखित विषयों पर विज्ञापन तैयार कीजिए।

(क) लेमनग्रास हर्बल चाय का सचित्र विज्ञापन तैयार कीजिए

(ख) डेंगू मलेरिया के प्रकोप से बचाव हेतु लोगों में जागरूकता बढ़ाने के लिए स्वास्थ्य मंत्रालय की ओर से एक आकर्षक विज्ञापन तैयार कीजिए।

प्रश्न 4 निम्नलिखित मुहावरों के अर्थ लिखिए व वाक्य में प्रयोग कीजिए।

सिर पर नंगी तलवार लटकना, आड़े हाथों लेना ,अंधे के हाथ बटेर लगना, आसमान सिर पर उठाना, अंधे की लाठी, खून पसीना एक करना,अगर -मगर करना, आकाश पाताल एक करना, ईद का चाँद होना, घी के दिए जलाना, आग बबूला होना

प्रश्न 5 इकाई परीक्षा 2 का पाठ्यक्रम याद कीजिए।

स्पर्श पाठ मीरा के पद, डायरी का एक पन्ना

संचयन पाठ 2 सपनों के से दिन

व्याकरण-अपठित गद्यांश ,पदबंध, समास ,औपचारिक पत्र लेखन, सूचना लेखन

प्रश्न 6 पदबंध की परिभाषा लिखिए । पदबंध कितने प्रकार के हैं ?प्रत्येक पदबंध के पाँच -पाँच उदाहरण लिखिए।

**प्रश्न 7 (क)** कवि कबीर, मैथिलीशरण गुप्त, मीरा का जीवन परिचय सचित्र ए -4साइज शीट पर लिखिए।(अनुक्रमांक 1से 18)

**(ख)** सुमित्रानंदन पंत, रवींद्रनाथ ठाकुर, प्रेमचंद का जीवन परिचय सचित्र ए -4साइज शीट पर लिखिए।(अनुक्रमांक 19से 37)

## SCIENCE

- 1. Prepare a project:** Create a project on selected topic including research data collection & presentation on impact of climate change on biodiversity.
- 2. Scientists Corner:** Choose a renowned Scientist from any field (PHY, CHEM, BIO etc) Gather information about the Scientists life, his Contribution and Achievement's Write all information on a full chart paper which includes pictures, diagrams etc.
- 3. Make a Static or Dynamic QR Codes for at least five trees found in your area. Bring printouts with lamination.**

### Worksheet MCQ QUESTIONS (BIOLOGY)

- Which of the following statements about the autotrophs is incorrect?  
(a) They synthesise carbohydrates from carbon dioxide and water in the presence of sunlight and chlorophyll  
(b) They store carbohydrates in the form of starch  
(c) They convert carbon dioxide and water into carbohydrates in the absence of sunlight  
(d) They constitute the first trophic level in food chains
- In which of the following groups of organisms, food material is broken down outside the body and absorbed?  
(a) Mushroom, green plants, Amoeba  
(b) Yeast, mushroom, bread mould  
(c) Paramecium, Amoeba, Cuscuta  
(d) Cuscuta, lice, tapeworm
- Select the correct statement  
(a) Heterotrophs do not synthesise their own food  
(b) Heterotrophs utilise solar energy for photosynthesis  
(c) Heterotrophs synthesise their own food  
(d) Heterotrophs are capable of converting carbon dioxide and water into carbohydrates
- Which is the correct sequence of parts in human alimentary canal?  
(a) Mouth → stomach → small intestine → oesophagus → large intestine  
(b) Mouth → oesophagus → stomach → large intestine → small intestine  
(c) Mouth → stomach → oesophagus → small intestine → large intestine  
(d) Mouth → oesophagus → stomach → small intestine → large intestine
- If salivary amylase is lacking in the saliva, which of the following events in the mouth cavity will be affected?  
(a) Proteins breaking down into amino acids  
(b) Starch breaking down into sugars  
(c) Fats breaking down into fatty acids and glycerol  
(d) Absorption of vitamins
- The inner lining of stomach is protected by one of the following from hydrochloric acid. Choose the correct one  
(a) Pepsin                      (b) Mucus                      (c) Salivary amylase                      (d) Bile



7. Which part of alimentary canal receives bile from the liver?  
 (a) Stomach (b) Small intestine (c) Large intestine (d) Oesophagus
8. A few drops of iodine solution were added to rice water. The solution turned blue-black in colour. This indicates that rice water contains  
 (a) complex proteins (b) simple proteins (c) fats (d) starch
9. In which part of the alimentary canal food is finally digested?  
 (a) Stomach (b) Mouth cavity (c) Large intestine (d) Small intestine
10. Choose the function of the pancreatic juice from the following  
 (a) trypsin digests proteins and lipase carbohydrates  
 (b) trypsin digests emulsified fats and lipase proteins  
 (c) trypsin and lipase digest fats  
 (d) trypsin digests proteins and lipase emulsified fats

## PHYSICS

### Very short answer type questions

- The power of a lens is  $-40$ , what is its focal length?
- State laws of reflection.
- What are the properties of image formed by a plane mirror?
- Give two uses of convex mirror.
- What is refractive index?
- Draw a ray diagram to show the image formed by a concave lens for the object placed at infinity.
- Draw a ray diagram to show the path of light when it travels through glass slab.
- State the lens formula and mirror formula.
- The refractive index of water is  $1.33$  and kerosene is  $1.44$  calculate the refractive index of kerosene with respect to water.
- Draw and explain the ray diagram formed by a convex mirror when:
  - object is at infinity.
  - object is at finite distance from the mirror.
- Differentiate between concave lens and convex lens.
  - Name two mirrors used in this fair shop.
  - Name the mirror in which the size of image is small.
- Name two types of spherical mirror.
- Give uses of concave mirror.
- Give uses of convex mirror.
- What are the two types of refractive index?
- Why do we prefer a convex mirror as a rear-view mirror in vehicles?
- Name the type of mirror used in the following situations.
  - Headlights of a car.
  - Side/rear-view mirror of a vehicle.
  - Solar furnace.
- The magnification produced by a plane mirror is  $+1$ . What does this mean?
- Find the focal length of a lens of power  $-2.0$  D. What type of lens is this?
- An incident ray makes an angle of  $60^\circ$  with the mirror. What is the angle of reflection?

## CHEMISTRY

### Short Answer Type Questions

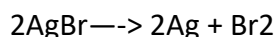
1. Write the chemical equation of the reaction in which the following changes have taken place with an example of each:

- (i) Change in colour
- (ii) Change in temperature
- (iii) Formation of precipitate

2. State the type of chemical reactions and chemical equations that take place in the following:

- (i) Magnesium wire is burnt in air.
- (ii) Electric current is passed through water.
- (iii) Ammonia and hydrogen chloride gases 'are mixed.

3. (i) Write the essential condition for the following reaction to take place:



Write one application of this reaction.

(ii) Complete the following chemical equation of a chemical reaction Heat



(iii) What happens when water is added to quick lime? Write chemical equation.

4. 2g of ferrous sulphate crystals are heated in a dry boiling tube.

- (i) List any two observations.
- (ii) Name the type of chemical reaction taking place.
- (iii) Write the chemical equation for the reaction.

5. Write chemical equation reactions taking place when carried out with the help of

- (i) Iron reacts with steam
- (ii) Magnesium reacts with dil HCl
- (iii) Copper is heated in air.



## MATHS

Do all following questions in A4 size sheet

1. If  $\text{LCM}(a, b) = 910$  and  $\text{HCF}(a, b) = 2$  where  $a = 130$  then find  $b$ .
2. If a pair of linear equations in two variables is inconsistent, then find the graphical representation by two equations.
3. What is the LCM of smallest prime number and smallest composite number?
4. Find LCM of  $(2^2 \times 3 \times 5)$  and  $(2^4 \times 5 \times 7)$ .
5. Two numbers are in the ratio of 15:11. If their HCF is 13, then find the number.
6. If the sum of the zeroes of the quadratic polynomial :  $3x^2 - kx + 6$  is 3, then find the value of  $k$ .
7. How many polynomials can be formed with -2 and 5 as zeroes? Explain.
8. If one zero of the quadratic polynomial  $(k-1)x^2 + kx + 1$  is -3, then find the value of  $k$ .
9. Find a quadratic polynomial, sum of whose zeroes is 9 and product is 14.
10. **Assertion:** The HCF of two numbers is 13 and LCM is 390. The numbers are 26 and 195  
**Reason:** For any two positive integers  $a$  and  $b$ ,  $\text{HCF}(a, b) \times \text{LCM}(a, b) = a \times b$ .

- a. Both (A) and (R) are true and (R) is the correct explanation of (A).
- b. Both (A) and (R) are true but (R) is not the correct explanation of (A).
- c. (A) is true but (R) is false.
- d. (A) is false but reason (R) is true.

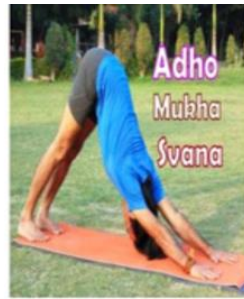
11. Given that  $\sqrt{7}$  is irrational, prove that  $2 + 3\sqrt{7}$  is irrational.
12. If a and b are two positive integers such that the least prime factor of a is 3 and the least prime factor of b is 5. Then find the least prime factor of (a + b).
13. If  $\alpha$  and  $\beta$  are the zeroes of the polynomial  $x^2 - 6x + 8$ , then find the value of  $\alpha^3 + \beta^3$ .
14. Find the value(s) of k for which the equation  $x^2 + 4kx + 16 = 0$  has real and equal roots.
15. **Assertion:** The HCF of two numbers is 18 and their product is 3072. Then their LCM = 169.  
**Reason:** If a, b are two positive integers, then  $\text{HCF} \times \text{LCM} = a \times b$ .
- a. Both (A) and (R) are true and (R) is the correct explanation of (A).
  - b. Both (A) and (R) are true but (R) is not the correct explanation of (A).
  - c. (A) is true but (R) is false.
  - d. (A) is false but reason (R) is true.
16. For what value of k will the following pair of linear equations is inconsistent;  
 $3x + y = 1$  and  $(2k - 1)x + (k - 1)y = 2k + 1$

17. Given that  $\sqrt{2}$  is irrational, prove that  $5 + 3\sqrt{2}$  is irrational.
18. If one root of the polynomial  $f(x) = 5x^2 + 13x + k$  is reciprocal of the other, then
- a) Find the value of k
  - b) Find sum of roots
19. The HCF of two numbers is 27 and their LCM is 162. If one of the n is 54, what is the other no..
20. The zeros of the quadratic polynomial  $x^2 + 88x + 125$  are
- (a) Both Negative
  - (b) Both Positive
  - (c) Both Equal
  - (d) one +ve and one -ve

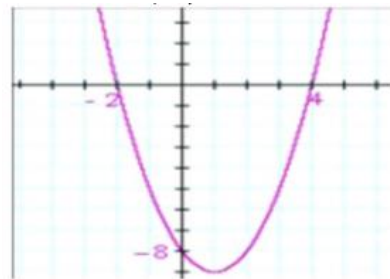
### ASSIGNMENT: POLYNOMIALS

1. Find the quadratic polynomial whose zeroes are  $(-3 + \sqrt{3})$  and  $(-3 - \sqrt{3})$
2. Find the quadratic polynomial whose sum of the zeroes is  $\sqrt{3}/4$  and product of the zeroes is  $-1/2$
3. If  $\alpha$  and  $\beta$  are zeroes of the quadratic polynomial  $p(x) = ax^2 + bx + c$ , then evaluate:
  - a)  $\alpha - \beta$
  - b)  $1/\alpha + 1/\beta$
  - c)  $\alpha/\beta + \beta/\alpha$
  - d)  $\alpha^2 + \beta^2$
  - e)  $\alpha^3 + \beta^3$
4. The zeroes of a quadratic polynomial  $f(x) = x^2 - 7x + k$  are  $\alpha$  and  $\beta$  such that  $\alpha - \beta = 3$ . Find the value of k.
5. If one of the zeroes of the quadratic polynomial  $3x^2 - 10x + (2k - 1)$  is reciprocal of the other, then find k.
6. If sum of the squares of the zeroes of a quadratic polynomial  $f(x) = x^2 - 18x + m$  is 180, find m.
7. If the square of the difference of the zeroes of a quadratic polynomial  $f(t) = t^2 + kt + 85$  is equal to 144, find k.
8. Find a quadratic polynomial whose zeroes are  $2\alpha + 1$  and  $2\beta + 1$  if  $\alpha$  and  $\beta$  are the zeroes of the polynomial  $f(t) = 2t^2 - 7t + 6$
9. An asana is a body posture, originally and still a general term for a sitting meditation pose, and later extended in hatha yoga and modern yoga as exercise, to any type of pose or position, adding reclining, standing, inverted, twisting, and balancing poses. In the figure, one can observe that poses can be related to representation of quadratic polynomial.





1. How many zeroes are there for a quadratic polynomial?
2. The shape of the poses given in the above pictures is-----
3. The graph of parabola opens downwards, if-----
4. The two zeroes in the above shown graph are-----



## SOCIAL SCIENCE

Q1 On the outline map of India label the following:-

- A) Types of forests
- B) Types of soils
- C) Important Dams in India

Note- Paste the maps in your notebook.

Q2. Make project file on any one topic.

- a) Social Issues
- b) Consumer Awareness
- c) Sustainable Development

Note- Make a beautiful and presentable file, consisting of at least 15 pages. It carry 20 marks



## ARTIFICIAL INTELLIGENCE

1. The Sustainable Development Goals (SDGs) are a set of 17 global goals adopted by the United Nations General Assembly in 2015 as part of the 2030 Agenda for Sustainable Development. They are a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030



**Create an online survey related to SDG selected by you.** The questionnaire should be framed in such a way that it helps us in understanding the problem/solutions and how AI contribute to it. Collect responses for your online survey from your family members, neighbours and friends. Compile all the responses of the survey and take a printout of the same.

2. Write the given python programs (SET A) in Python IDLE. After coding execute the program and take the screenshot of each bug /error free code with its output, take print out and arrange them in your practical file.

