

# KENDRIYA VIDYALAYA NO.2 DELHI CANTT

## FIRST SHIFT

### SESSION 2022-23

## SUMMER BREAK HOLIDAY HOMEWORK

# CLASS ~ ~ 6

## ENGLISH

### CLASS-6 (English)

- 1) Make a list of 20 naming words, 20 describing words, 20 action words, 20 joining words.
- 2) Make 50 different types of sentences - (declarative, interrogative, imperative, exclamatory).
- 3) Make a model of cone Ice-cream.
- 4) COMPLETE THE CLASS WORKS IN YOUR FAIR COPY FROM YOUR ROUGH COPY.



कक्षा -6 विषय- हिंदी  
विद्यार्थी दिए गए कार्य को परियोजना कॉपी (अलग कॉपी) में करेंगे।

- 1- अनुच्छेद लेखन : लगभग 100 से 120 शब्दों में निम्नांकित विषयों पर अनुच्छेद लिखें -  
1 पेड़ों की उपयोगिता।  
2) प्रिय मित्र।

2-पत्र लेखन :- निम्नांकित विषयों पर पत्र लिखें:

- 1) अपने मित्र को परीक्षा में प्रथम आने पर बधाई पत्र लिखें।
- 2) अपने भाई की शादी में जाने के लिए विद्यालय की प्राचार्या महोदया को 4 दिन की छुट्टी (अवकाश) के लिए एक प्रार्थना पत्र लिखें।

3 - अपनी किसी भी की गई यात्रा के बारे में वर्णन करते हुए उससे सम्बन्धित आकर्षक चित्र बनाइये।

4 - बाल राम- कथा पुस्तक को पढ़ें।

जो पाठ आपको पढ़ा दिए गए उनके प्रश्न- उत्तर करें।

5 पाठ्य पुस्तक के करवाए गए सभी पाठों के अभ्यास कार्य तथा भाषा की बात के कार्य को पूर्ण करें तथा याद करें।

6 परियोजना कार्य

व्याकरण खंड : संज्ञा की परिभाषा तथा भेदों का वर्णन लिखें।

\* यह कार्य परियोजना कॉपी (अलग कॉपी) में करेंगे।

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# संस्कृत ग्रीष्म अवकाश कार्य

- 1- 10 संस्कृत भाषा के आदर्श वाक्यों की सूची बनाइए उनके विभाग के नाम के साथ जैसे-तत् त्वम पूशन अपावृनु — —केन्द्रीय विद्यालय संगठन ।
- 2- दैनिक जीवन में प्रयुक्त 10वस्तुओं के संस्कृत नाम की सूची बनाइए और लिखिए जैसे-प्रातराश, दंतधावन आदि
- 3- अपनी अब तक पठित कथाओं में से पंचतंत्र की सबसे प्रिय कहानी हिंदी में लिखिए ।
- 4- पुल्लिंग , स्त्रीलिंग , नपुंसक लिंग के दस दस उदाहरण अपनी पाठ्य पुस्तक से खोजकर लिखिए ।
- 5- पठ,चल धातु के रूप तीन लकारों में (लट लृट लंग लकार )लिखकर याद कीजिए ।
- 6- बालक ,बालिका ,फलम शब्द रूप अपनी पाठ्य पुस्तक से देखकर याद करके लिखो ।
- 7- हम स्वस्थ कैसे रह सकते हैं ?अपनी समझ से स्वस्थ रहने के दस उपाय लिखिए ।

## MATHS

### CLASS VI (MATHEMATICS) CHAPTER – 1. KNOWING OUR NUMBERS.

- Q1. One Km is how many centimetres ?  
(i) 100000 (ii) 10000 (iii) 1000 (iv) 100
- Q2. Population of a town in the year 2000 was 200000 . In the year 2005 , it was found to be increased by 10359 . What was the population of the town in 2005.  
(i) 220359 (ii) 210000 (iii) 210359 (iv) 20359
- Q3. A machine , on an average , manufactures 2825 screws a day. How many screws did it manufacture in the month of January ?  
(i) 84750 (ii) 87575 (iii) 81925 (iv) 79100
- Q4. A vessel has 4 litres & 500 ml of milk. In how many glasses , each of 25 ml capacity, can it be filled?  
(i) 150 (ii) 160 (iii) 170 (iv) 180
- Q5. Which of the following is the Roman Numeral for 69  
(i) LXXI (ii) LXIX (iii) CXIX (iv) CXXI

### CHAPTER – 2. WHOLE NUMBERS.

- Q1. Which is the successor of 1099999 ?  
(i) 1100001 (ii) 1100000 (iii) 1099998 (iv) 9999999
- Q2. Which is the predecessor of 208090 ?  
(i) 208089 (ii) 208091 (iii) 218090 (iv) 198090
- Q3. What is the value of  $8 \times 1769 \times 125$   
(i) 1769000 (ii) 1768000 (iii) 1768010 (iv) 1769010
- Q4. What is the value of  $81265 \times 169 - 81265 \times 69$   
(i) 81265000 (ii) zero (iii) 8126500 (iv) 8026500
- Q5. Which of the following is the additive identity in the set of Whole numbers ?  
(i) 1 (ii) zero (iii) - 1 (iv) any number
- Q6. The school canteen charges Rs. 20 for lunch & Rs. 5 for milk each day.  
How much money will be charged in 5 days on these things?  
(i) Rs. 125 (ii) Rs. 25 (iii) Rs. 75 (iv) Rs. 100

### CHAPTER – 3. PLAYING WITH NUMBERS.

- Q1. Which of the following is the factor of every number ?  
(i) - 1 (ii) zero (iii) 1 (iv) any number
- Q2. How many factors does 36 have ?  
(i) 5 (ii) 6 (iii) 7 (iv) 9
- Q3. Which of the following is the smallest prime number ?  
(i) 1 (ii) 2 (iii) 3 (iv) 5
- Q4. How many prime numbers are there between 1 & 20 ?  
(i) 7 (ii) 8 (iii) 9 (iv) 10
- Q5. Which of the following is the smallest composite number ?  
(i) 2 (ii) 3 (iii) 4 (iv) 5
- Q5. Which of the following is the HCF of the numbers 20, 28 & 36 ?  
(i) 20 (ii) 36 (iii) 4 (iv) 5
- Q6. Which of the following is the LCM of the numbers 20, 30 & 60 ?  
(i) 20 (ii) 30 (iii) 60 (iv) 36000



## SCIENCE

1. Conduct a survey for 10 families around you about what kind of food they eat. Then categorise those families into families that take balanced diet and families that do not take balanced diet. (collect the data and arrange in tabular form).
2. Prepare a list of food items you commonly eat and find out (through tests, books, encyclopaedia or internet resources) major nutrients contained in them and check if you are missing on any essential nutrient.
3. List 5 plants and their parts that are eaten as food (paste pictures).
4. Prepare a diet chart for a 12 years old student.
5. Revise ch-1 and 2.
6. Write the deficiency diseases its causes and symptoms in a tabular form on A4 sheet.
7. Grow 5 grains through sprouting. Paste picture also.
8. Skills and application-based questions:
  - (i) Ravi had weak eyesight. He had difficulty in reading and writing. He went to a doctor. The doctor asked him to increase the intake of green vegetables. Why do you think the doctor suggested him this?
  - (ii) Separate the insects, dead worms, and excreta of rodents in rice and wheat, husk and wheat grains, coffee powder from coffee seeds, mixture of cooking oil, sand and water.
9. Ask the students to gather information about countries facing shortage of food, its causes and effects through newspapers, magazines, and internet.
10. Make Poster on topic: Roll no. 1-10-  
Air Pollution  
Roll no. 11-20- Water Pollution Roll no. 21-30- Oral hygiene  
Roll no. 31-40- Personal hygiene  
Roll no. 41-50- Sound Pollution  
Roll no. 51-60- Dental Care



## SOCIAL SCIENCE

### SUMMER VACATION HOLIDAY HOMEWORK Class 6 Social Science

**History 1.** Imagine the year is 2122. You are an archaeologist excavating the area around your house. List ten items you find in the course of excavation.

**2.LOCATE THE FOLLOWING OF THE OUTLINE PHYSICAL MAP OF INDIA (ONLY DRAW MAP ) TAPI RIVER, BRAHMAPUTRA RIVER, GODAVARI RIVER**

**Geography 1.** Draw neat and clean diagram of phases of moon on plain paper and paste it on your notebook.

**2.DRAW SOLAR SYSTEM AND WRITE NAME OF PLANET**

**Civics 1.** As per your learning in class make a list (DRAW MAP OF INDIA AND INDICATE STATE) of any five states of India showing the following points. Language spoken, food festivals, dance forms, dress worn, religious places etc.

**2.** Globalization has changed the way of living of people since independence. With the help of your parents and friends note down these changes on following parameters.

Transportation, communication, technology, tourism, health and education.

**NOTE:** WRITE HHW IN CW/A4 SIZE PAPER/AVAILABLE PAPERS/PRACTICE NOTE BOOK ETC.

## ARTIFICIAL INTELLIGENCE

### Link of Technofun Book Class 6

(Do it in computer notebook)

1. Write a python coding to draw a triangle using turtle. (Refer page 9 Technofun book).
2. Write a python coding to draw a square using turtle. (Refer page 10 Technofun book).
3. Write a python coding to draw a rectangle using turtle. (Refer page 10 Technofun book).
4. Write a python coding to draw a star using turtle. (Refer page 11 Technofun book).
5. Write a python coding to draw a hexagon using turtle. (Refer page 11 Technofun book).
6. Write a python code to fill the image with green color with red outline color.

(Refer page 13 Technofun book)



**KENDRIYA VIDYALAYA NO.2 DELHI CANTT**

**FIRST SHIFT**

**SESSION 2022-23**

**SUMMER BREAK HOLIDAY HOMEWORK**

**CLASS -- 7**

**ENGLISH**

**NOTE: The summer vacations for the session 2022-23 are scheduled from 09 May 2022 to 17 June 2022.**

Enjoy your vacations with your family and make fun. Have healthy diet, fruits and lots of liquid e.g., water, lemonade, buttermilk, milk, juices etc. to keep yourself fit and hydrate in this Summer.

#Do the given work in your English Notebook only.

1. To be proficient in any of the language "Reading" is the most important competency. Read any of your favorite book. Write about the characters of the story in 50-80 words, Gist of the story and what you learn from the story.
2. Underline noun, verb and adjectives from the story and write in your notebook.
3. Write paragraph about- What is Yoga, Need of Yoga and World Yoga Day. Paste some of the yoga postures and describe them.
4. Read the following conversation carefully:

Rosy: Hello ! is it 9035022565?

Rehana: Yes, please. Who's it there?

Rosy: I'm Rosy, a friend of Roma. Where is she?

Rehana: Oh! Sorry. Actually she has forgotten her mobile here. she has gone to the market. Can I help you, please ?

Rosy: Oh, Sure. In fact, I wanted to convey her that today's music classes | shall be suspended because the teacher is not well. Instead it will be held on Sunday. So she should remember it. Could you please pass this message to her?

Rehana: Oh! Sure. Thank you. Rosy: Thank you too.

As Rehana is going to her dance classes she needs to reproduce the message for Roma.

Write the message on her behalf with every detail.

5. You are Rohit/Reema residing at 4/121 A, Malviya Nagar, New Delhi. Your father is posted at the border of India in Kargil. Write a letter to your father telling him about the well being of the family and your achievement in school.
6. Read the stories from your supplementary book and prepare comic of any of the story.
7. Revise the following grammatical concept: Noun, Articles, Adjective, Adverb, Verb forms etc.

## HINDI

कक्षा-7 विषय- हिंदी

विद्यार्थी दिए गए कार्य को परियोजना कॉपी (अलग कॉपी) में करेंगे।

- 1- अनुच्छेद लेखन : लगभग 100 से 120 शब्दों में निम्नांकित विषयों पर अनुच्छेद लिखें -  
1 इंटरनेट की उपयोगिता।  
2) प्रिय त्योहार।

2-पत्र लेखन :- निम्नांकित विषयों पर पत्र लिखें:

- 1) अपने छोटे भाई को योग और ध्यान का महत्व बताते हुए एक अनौपचारिक पत्र लिखें।  
2) अपनी बहन की शादी में जाने के लिए विद्यालय की प्राचार्या महोदया को 3 दिन की छुट्टी (अवकाश) के लिए एक प्रार्थना पत्र लिखें।

3 - अपनी किसी भी की गई यात्रा के बारे में वर्णन करते हुए उससे सम्बन्धित आकर्षक चित्र बनाइये।

4 - बाल महाभारत पुस्तक को पढ़ें

जो पाठ आपको पढ़ा दिए गए उनके प्रश्न उत्तर करें।

5 पाठ्य पुस्तक के करवाए गए सभी पाठों के अभ्यास कार्य तथा भाषा की बात का कार्य पूरा करें तथा याद करें।

6 परियोजना कार्य

व्याकरण खंड : संज्ञा , सर्वनाम, विशेषण , वचन , समास की परिभाषा तथा भेदों का वर्णन लिखें तथा याद करें।

\* यह कार्य परियोजना कॉपी (अलग कॉपी) में करेंगे।

## कक्षा -सप्तम

### संस्कृत ग्रीष्म अवकाश कार्य

कक्षा -सप्तम

संस्कृत ग्रीष्म अवकाश कार्य

1-संस्कृत भाषा के किन्ही 30 आदर्श वाक्यों की सूची बनाइए उनके विभाग के नाम के साथ जैसे-तत् त्वम पूशन अपावृनु —केन्द्रीय विद्यालय संगठन।

2-दैनिक जीवन में प्रयुक्त २० वस्तुओं के संस्कृत नाम की सूची बनाइए और लिखिए

3-अपनी अब तक पठित कथाओं में से सबसे प्रिय संस्कृत कथा संस्कृत/ हिंदी में लिखिए

4-सुभाषित का महत्त्व दस वाक्यों में लिखिए संस्कृत/ हिंदी में।

5-पठ, चल , धातु के रूप लट , लृट, लंग, लोट लकारों में लिखकर याद कीजिए।

6-बालक , बालिका , फलम शब्द रूप याद करके लिखो।

7-अपनी पाठ्य पुस्तक से कोई पाँच श्लोक याद करके लिखो।

8- हम स्वस्थ कैसे रह सकते हैं ? कोई दस उपाय लिखिए।

# MATHS

## Integers Class - 7th Maths Worksheet

### I. Perform the following operations on Integers:-

1.  $(+5) + (+2)$

6.  $(-7) + (-3)$

11.  $(+9) + (-4)$

2.  $(-5) + (-2)$

7.  $(+7) + (-3)$

12.  $(-9) + (+4)$

3.  $(+5) + (-2)$

8.  $(-7) + (+3)$

13.  $(-7) + (-2)$

4.  $(-5) + (+2)$

9.  $(+9) + (+4)$

14.  $(-7) + (+2)$

5.  $(+7) + (+3)$

10.  $(-9) + (-4)$

15.  $(+7) + (-2)$

### II. Perform the following operations on Integers :-

1.  $(+5) - (+2)$

6.  $(-7) - (-3)$

11.  $(+9) - (-4)$

2.  $(-5) - (-2)$

7.  $(+7) - (-3)$

12.  $(-9) - (+4)$

3.  $(+5) - (-2)$

8.  $(-7) - (+3)$

13.  $(-7) - (-2)$

4.  $(-5) - (+2)$

9.  $(+9) - (+4)$

14.  $(-7) - (+2)$

5.  $(+7) - (+3)$

10.  $(-9) - (-4)$

15.  $(+7) - (-2)$

### III. Perform the following operations on Integers :-

1.  $(+5) \times (+2)$

11.  $(+9) \times (-4)$

2.  $(-5) \times (-2)$

12.  $(-9) \times (+4)$

3.  $(+5) \times (-2)$

13.  $(-7) \times (-2)$

4.  $(-5) \times (+2)$

14.  $(-7) \times (+2)$

5.  $(+7) \times (+3)$

15.  $(+7) \times (-2)$

6.  $(-7) \times (-3)$

16.  $-8 \div -2$

7.  $(+7) \times (-3)$

17.  $-8 \div 2$

8.  $(-7) \times (+3)$

18.  $8 \div (-2)$

9.  $(+9) \times (+4)$

19.  $24 \div (-2)$

10.  $(-9) \times (-4)$

20.  $-18 \div 6$

### IV. Find

(a)  $(-7) - 8 - (-25)$

# SCIENCE

## Holiday homework of science for class 7<sup>th</sup>

### • Chapter 1 Nutrition in plants

**Activity 1** – Try growing a sweet potato just in water. Describe your experiment and observation.

**Activity 2** - Take 2 pots of any plant . Place one in presence of sunlight and another one in dark room for 15 days. After 15 days observe both plants and write your observation.

**Activity 3** – Make a file project in which paste 15 different colours leaves also write leaves name.

### Chapter 2 – Nutrition in Animals

**Activity 1** – Write at least 5 different source of food which provide Vitamin A, B, C and D

**Activity 2** –

2. Find out what vitamins are and get the following information.

- (i) Why are vitamins necessary in the diet?
- (ii) Which fruits or vegetables should be eaten regularly to get vitamins?

Write a one-page note on the information collected by you. You may take help of a doctor, a dietician, your teacher or any other person, or from any other source.

## ACTIVITY 3

3. Collect data from your friends, neighbours and classmates to know more about “milk teeth”.

Tabulate your data. One way of doing it is given below:

S. No.	Age at which first tooth fell	Age at which last tooth fell	No. of teeth lost	No. of teeth replaced
1.				
2.				
3.				
4.				
5.				

Find out from at least twenty children and find the average age at which children lose the milk teeth. You may take help of your friends.

**Activity 4** – Make a poster on personal hygiene.

Solve and learn following questions

1. Differentiate between parasitism and symbiosis.
2. Explain the symbiotic relationship between Rhizobium bacteria and leguminous plants.



3. Differentiate between autotrophic and heterotrophic modes of nutrition.
4. What is photosynthesis? Draw a schematic diagram to show photosynthesis.
5. If pitcher plant is green and carries out photosynthesis, then why does it feed on insects
6. Explain the process of digestion in stomach.
7. Write the functions of different types of teeth in human beings.
8. Define dental plaque. What harm can it cause? How can the formation of plaque be prevented?
9. Explain rumination.
10. In a birthday party, Ram filled his plate with oily and sugary food. His elder sister Sarita on seeing this interrupted him. She told him that it is not good to eat too much of this kind of food. She asked him to share that plate with his friends and suggested to include some vegetables and salads also.
  - (a) Why eating oily and sugary food not good for health?
  - (b) What is the effect of sugary food on our teeth? How we can prevent it?
  - (c) Where do sugary food get digested in alimentary canal?
  - (d) What value of Sarita is shown here?

### **SOCIAL SCIENCE**

Holiday home work (SUMMER VACATION) class 7 in Social Science

1. Make a diagram of an ecosystem. Explain the interdependence of living organism through the same diagram.
  2. How human beings modify environment? Write the consequences of this interference.
  3. What does Indian constitution say about equality? Enlist the provisions of Article 15 and Article 17 of our constitution.
  4. Write a short note on Civil Right Movement in USA.
  5. Make a list of the social and technological changes observed between the period 700 to 1750.
  6. How does our country get its name India and Hindustan? Write it's story.
  7. Make a scrap book on festivals, folk dances and costumes of Sikkim.
- Do activities 1 to 6 in your social science note book .  
Do activity 7 in a scrap book.

## COMPUTER

### [Link of Class 7 Computer Technofun Book](#)

(Do it in computer notebook)

1. In certain code language, PAIR is written as '7199'. In the same code language, how will 'FAIR' be written as:  
a. 6919 b. 1691 c. 6919 d. 6199
2. If BRAIN is coded as 29195, the how is SLEEP coded in that code.  
a. 13557 b. 15357 c. 31557 d. 35517
3. If 1352 is coded as DEAR and 2693 is coded as ROPE, then 93 52 is coded as  
a. ARPE b. RAEP c. PEAR d. ERPA
4. If RAID is written as %#@\$ and RIPE is coded as %@^\*, then DEAR is coded as  
a. \$\*#% b. \*#%\$ c. \$%\*# d. #%\$\*
5. If STAR is coded as #8@7, then JRKT is coded as  
a. \*789 b. \*7%8 c. %8\*9 d. %7\*#
6. Explains the terms (Refer page-6 Technofun)  
a. Algorithm  
b. Flowchart
7. Why do we require coding?
8. List various symbols used in flowchart development.
9. Write advantages of flowcharts.
10. Draw a flowchart to display the area of a rectangle. (Refer page 7 Technofun)



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**SESSION 2022-23**

**SUMMER BREAK HOLIDAY HOMEWORK**

**CLASS --- 8**

**ENGLISH**

1. Prepare a comic strip on – Protection from Corona Virus.
2. Diary Entry You have witnessed a natural disaster like Tsunami, write a diary entry expressing your feelings, nervousness, pain of seeing casualties and safety measures for it.
3. Paragraph Writing Write a paragraph on What is the best way to resolve dispute between two countries. (100 -120 words)
4. Notice Writing Your friend Smith has planned an adventure trip to Manali in summer holidays, invite your friends for this by writing a notice. (Also mention dates and expected expenditure.)
5. Describe the following faces within 50 words. Write some situations when you had given such expressions.



6. Read and understand the poem – Geography lesson and write its summary in notebook along with question answers given in the book.
7. Make a ppt or slideshow on any one of the following personalities. (8-10 slides) You can add your voice in the background talking about the person:-

APJ KALAM

Or

SUBHASH CHANDRA BOSE

NOTE: DO THE HOMEWORK IN A4 SHEETS OR CLASS NOTEBOO

## HINDI

\*कक्षा -आठवीं विषय- हिंदी\*

विद्यार्थी दिए गए कार्य को परियोजना कॉपी (अलग कॉपी) में करेंगे ।

1- अनुच्छेद लेखन : 100 से 120 शब्दों में निम्नांकित विषयों पर अनुच्छेद लिखें -

क) करो योग रहो नीरोग ।

ख) मेहनत ही सफलता की कुंजी है ।

2- पत्र लेखन :- निम्नांकित विषयों पर पत्र लिखें:

क) अपनी बहन की शादी में जाने के लिए विद्यालय की प्राचार्या महोदया को 5 दिन की छुट्टी (अवकाश) के लिए एक प्रार्थना पत्र लिखें ।

ख) सिक्किम निवासी अपने मित्र को ग्रीष्म कालीन अवकाश में दिल्ली भ्रमण कराने के लिए एक पत्र लिखिए ।

4- अपनी किसी बस की यात्रा के बारे में वर्णन करते हुए बस का आकर्षक चित्र बनाइये ।

5- भारत की खोज पुस्तक के आधार पर लेखक के बारे में एक प्रोजेक्ट तैयार कीजिए ।

6- व्याकरण खंड : संज्ञा , सर्वनाम, विशेषण , क्रिया ,क्रियाविशेषण की परिभाषा तथा भेदों का वर्णन लिखें तथा याद करें ।

7- अपना परिचय देते हुए अपनी रुचियों के विषय में लिखें तथा कोरोनाकाल के अनुभव लिखें ।

(पाठ्य पुस्तक के करवाए गए सभी पाठों के अभ्यास तथा अतिरिक्त प्रश्न पूर्ण करें तथा याद करें । )

\*\*यह परियोजना कार्य परियोजना कॉपी (अलग कॉपी) में करेंगे ।\*\*

कक्षा -अष्टम

संस्कृत ग्रीष्म अवकाश कार्य

- 1- संस्कृत साहित्य के महान कवि कालिदास की रचनायें एवं उनकी जीवनी 1000 शब्दों में लिखिए ।
- 2- दैनिक जीवन में प्रयुक्त २० वस्तुओं के संस्कृत नाम की सूची बनाइए और लिखिए
- 3- अपनी अब तक पठित कथाओं में से सबसे प्रिय कथा संस्कृत/ हिंदी में लिखिए
- 4- (स्वस्थ जीवन का महत्त्व एवं उपाय )बीस वाक्यों में लिखिए संस्कृत/ हिंदी में ।
- 5- चल,पठ धातु के रूप पंच लकारों में लिखकर याद कीजिए ।
- 6- बालक, बालिका तथा किम शब्द रूप तीनों लिंग में याद करके लिखो ।
- 7- अपनी पाठ्य पुस्तक के कोई पाँच श्लोक याद करके लिखिए ।

नोट- यह कार्य संस्कृत कॉपी में कीजिए ।

## MATHS

Q1. Write the definitions of:

- a) Natural Numbers
- b) Whole numbers
- c) Integers
- d) Rational numbers

In support of your answer, also represent a few of each type on a number line.

Q2. Mention the commutativity, associative and distributive properties of rational numbers. Also, check  $a \times b = b \times a$  and  $a + b = b + a$  for  $a = \frac{1}{2}$  and  $b = \frac{3}{4}$

Q3. Write any 5 rational numbers between  $-\frac{2}{5}$  and  $\frac{1}{2}$ .

Q4. Represent  $-\frac{2}{11}$ ,  $-\frac{5}{11}$ , and  $-\frac{9}{11}$  on the number line.

Q5. A positive number is 5 times another number. If 21 is added to both the numbers, then one of the new numbers becomes twice of the other new numbers. Find the original numbers.

Q6. The sum of three consecutive multiples of 8 is 888. Find the multiple.

Q7. Five years ago, Anu was thrice as old as Sonu. After ten years, Anu will be twice as old as Sonu. How old are Anu and Sonu?

Q8. Three consecutive integers are such that they are taken in increasing order and multiplied by 2, 3, and 4 respectively, they add up to 56. Find these numbers.

Q9. There is a narrow rectangular plot. The length and breadth of the plot are in the ratio of 11:4. At the rate of Rs. 100 per meter it will cost the village panchayat Rs. 75000 to fence the plot. What are the dimensions of the plot?

Q10. Convert the following statements into equations.

- (a) 3 added to a number is 11
- (b) 2 subtracted from a number is equal to 15.
- (c) 3 times a number decreased by 2 is 4.
- (d) 2 times the sum of the number  $x$  and 7 is 13.

Q11. The sum of three consecutive odd numbers is 51. Find the numbers.

Q12. A sum of Rs.2700 is to be given in the form of 63 prizes. If the prize is of either Rs.100 or Rs.25, find the number of prizes of each type.

# SCIENCE

## Biology:

1. Identify the following:-

- (a) Providing water to crops
  - (b) Keeping crop grains for a long time under proper conditions
  - (c) Certain plants of the same kind grown on a large scale
  - (d) A machine used for cutting the matured crop
  - (e) A Rabi crop that is also one of the pulses
  - (f) A process of separating chaff from the grains
  - (g) A way of collecting rainwater & later using it for domestic or other purposes
2. Write a short note on Vermicomposting.
3. Explain and draw a neat diagram of Nitrogen cycle.
4. Draw a mind map to show the steps involved in crop production and Nitrogen cycle.

## Physics:

1. Draw a Flow chart about types of forces.
2. Collect and paste related pictures about forces.
3. If a man stands on chair, chances of its breaking are more but if a man sits on chair, chances of its breaking are less. Explain.
4. Why does the nose of a mountaineer bleed at high altitudes?
5. Why does an astronaut wear a special type of suit?
6. The pressure due to atmosphere is very large. Why we are not crushed?
7. Calculate the pressure exerted by a brick, which applies a force of 30 N, when (a) It is placed upright on the soil.  
(b) When it is placed on its widest base.

The length, breadth and height of the brick are 20cm, 10cm & 5 cm respectively

8. Explain different forces with examples.

## Chemistry:

1. Give three uses each of nylon and acrylic.
2. Define the following  
(a) Polymer (b) Synthetic fibre
3. (a) Which material is used for making plugs, switches? (b) Name the plastic used for making non-stick pans.  
(c) Give one reason to support the use of teflon in non-stick pans.
4. Give examples, which indicate that nylon fibres are very strong
5. Name the plastic whose sheets are used for packing liquids.
6. How is artificial silk made?
7. Why nylon is used for making parachutes?
8. Can bacteria break down plastics?
9. Write any three important properties and uses of nylon.
10. Give the characteristic properties and important uses of the following  
(i). Polythene (ii). Polystyrene (iii). Teflon

## **SOCIAL SCIENCE**

### **Holidays Home-work-8th SST**

#### **Summer vacation-2022-23**

1. Write the key features of Indian constitution.
2. Write a short note on Secularism.
3. Write some principles of sustainable development.
4. Write some method of soil conservation.
5. Draw the soil profile in a A- 4 size paper.
6. Write & paste picture of all Governor General & Viceroy during the British rule.
7. Write a short note on Tipu Sultan.
8. What is the doctrine of lapse? explain.
9. Learn and write any 10 sentences in the language of Sikkim.
10. Make a scrap book on culture & natural vegetation of Sikkim.

## **ARTIFICIAL INTELLIGENCE**

### **Do Practice of Chapter – 1 from TECHNOFUN Book**

1. What is the main difference between Algorithm and Flow chart? Write in details with images.
2. What are various types of boxes used in Flow chart? Define each with images and examples on a chart paper.
3. Write Do's and Don'ts while working on computer in lab/ in home on A4 Sheet.
4. What is DBMS?

**Note:- Do all in your Computer Notebook**



**KENDRIYA VIDYALAYA NO.2 DELHI CANTT**

**FIRST SHIFT**

**SESSION 2022-23**

**SUMMER BREAK HOLIDAY HOMEWORK**

**CLASS ~~~ 9**

**ENGLISH**

Note: Do the HHW in your English Notebook only.

1. Write Formal letters based on given situations:

- i) letter to the Editor
- ii) Enquiry letter
- iii) Complaint letter

2. Create a memory book of the best moments of your summer vacation. Write few lines for each memory.

Decorate your memory book with a colourful cover.

3. Write a story in about 150-200 words with the following beginning  
and give a suitable title to it.

It had been over two hours waiting for the train. Ruhi was getting restless. Suddenly she.....

4. You met with Margie and Tommy, the characters of the story "The Fun They Had". You had a conversation with them about the teachers, books and schools

Write down this conversation in the form of dialogue (use direct speech only).

5. Write a descriptive paragraph about your favourite sports person.

6. Read and learn all the chapters and poems done in the class till now.



## HINDI

कक्षा 9 ग्रीष्मकालीन अवकाश के लिए हिंदी कार्य:-

1. ग्रीष्मकालीन अवकाश से पहले पढ़ाए गए पाठों के प्रश्न उत्तर याद कीजिए।
2. अर्थ के आधार पर वाक्य के भेद उदाहरण सहित (कम से कम 10 वाक्य) लिखें और याद करें तथा एक प्रोजेक्ट के रूप में इसे तैयार करें।
3. कोरोना काल के बाद स्कूल खुलने पर व्यक्तिगत अनुभव पर अनुच्छेद लिखिए।
4. ग्रीष्मकालीन अवकाश के दौरान मनाली घूमने के लिए अपने दोस्त को आमंत्रित करते हुए पत्र लिखें।
5. प्रत्येक दिन एक निश्चित समय निर्धारित करके समाचार देखें कथा समसामयिक गतिविधियों से परिचित रहें।

## MATHS

Class 9 Holiday Homework Click on the link given below---

<https://drive.google.com/file/d/1dp6QC6gjSr40RE2gmD2SeP0oe82Yj1-u/view?usp=sharing>

**SCIENCE**  
**CLASS 9 SCIENCE**  
**HOLIDAY HOMEWORK CLICK ON IT TO GET PDF**

General Instructions

*Solve and learn the questions given here.*

*All questions are compulsory and to be done in science notebook.*

1. Alka was making tea in a kettle. Suddenly she felt intense heat from the puff of steam gushing out of the spout of the kettle. She wondered whether the temperature of the steam was higher than that of the water boiling in the kettle. Comment.
2. Look at Fig. 1.3 and suggest in which of the vessels A, B, C or D the rate of evaporation will be highest? Explain.

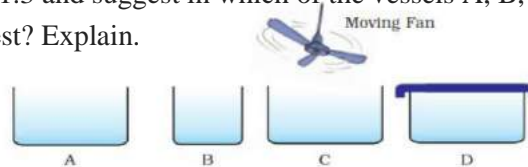


Fig. 1.3

3. It is a hot summer day, Priyanshi and Ali are wearing cotton and nylon clothes respectively. Who do you think would be more comfortable and why?
4. Why does the temperature of a substance remain constant during its melting point or boiling point?
5. Why is it advisable to use pressure cooker at higher altitudes?
6. The temperature at which liquids change into vapours is very high, for example, water vaporises at  $100^{\circ}\text{C}$  then how is not possible for water to evaporate at room temperature or at are other temperature?
7. Identify each of the following changes of state as evaporation, boiling or condensation. Give reason for your answer.
  - (a) Wet clothes dry when spread on wire.
  - (b) After a hot shower, your bathroom mirror is covered with water.
  - (c) Lava flows into the ocean and forms steam.
8. 'Sea water can be classified as homogeneous as well as heterogeneous mixture.' Comment.



Edit with WPS Office

9. Explain why particles of a colloidal solution do not settle down when left undisturbed, while in the case of a suspension they do.
10. Is water an element or a compound? Give reason in support of your statement.
11. Classify each of the following as a physical or a chemical change. Give reasons.
- Drying of a shirt in the sun.
  - Rising of hot air over a radiator.
  - Burning of kerosene in a lantern.
  - Change in the colour of black tea on adding lemon juice to it.
  - Churning of milk cream to get butter.
12. Three students A, B and C prepared mixtures using chalk powder, common salt and milk respectively in water. Whose mixture:
- would not leave residue on filter paper after filtration?
  - would show Tyndall effect?
  - would give transparent/clear solution?
  - would settle down at the bottom when left undisturbed?
  - could be filtered by filter paper?
13. You are given two samples of water labelled as 'A' and 'B'. Sample 'A' boils at  $100^{\circ}\text{C}$  and sample 'B' boils at  $102^{\circ}\text{C}$ . Which sample of water will not freeze at  $0^{\circ}\text{C}$ ? Comment.
14. (a) 110 g of a solute are present in 550 g of solution. Calculate the concentration of solution.  
(b) Give any three points of difference between true solution, colloidal solution and suspension.
15. Water is a compound and not a mixture. Justify the statement giving two reasons.
16. Write short notes with suitable illustrations on the following:
- Carbon cycle
  - Oxygen cycle
  - Nitrogen cycle

## SOCIAL SCIENCE

Complete the following questions in a separate notebook

1. How did the growing middle class and philosophers contribute towards the outbreak of the French Revolution?
2. How did France become a constitutional monarchy?
3. Why is the central location of India at the head of the Indian ocean considered to be of great significance?
4. Why do we need a standard meridian ? Where is it located ? What is its significance?
5. What is democracy? What are its merits and demerits?
6. What are the challenges before democracy?
7. Differentiate between Fixed capital and working capital.
8. What is multiple cropping?
9. What are the main non-farm activities of the people of village Palampur ?

### PROJECT-----

Collection of Patriotic songs, Paintings, Slogans and News used by the local freedom fighters & Unsung heroes during the freedom struggle of India.

## ARTIFICIAL INTELLIGENCE-417

### LINK OF CLASS 9 AI BOOK –

### Class 9 CBSE AI HANDBOOK

Holidays are a break from studies, explanation and completing tasks. But are holidays supposed to make you lazy?

No definitely not!!!!!!

So, a few tasks have been planned to keep you occupied and help you in discovering the creative being in you.

#### General Instructions:

- Make your presentations Captivating and informative.
  - Analyze your work before making presentation.
  - Save your work neatly labelled mentioning your name, class and section
  - Q No-1 should be done on a coloured A4 size sheet.
  - All the holiday homework will be marked out of 5 marks, it will be added as your portfolio marks.
  - PowerPoint Presentation will be submitted on my email id – [comp.1410.1@kvsrodelhi.in](mailto:comp.1410.1@kvsrodelhi.in)
1. Explain – the difference between Human Brain and Artificial Intelligence, Can Artificial Intelligence be replaced by human brain and write three impacts of Artificial Intelligence on society.
  2. Watch the movie ---  
Link for Smart cities video:  
<https://www.youtube.com/watch?v=eRMiKt81nAE>  
Link for Smart Home video:  
<https://www.youtube.com/watch?v=1CajaUoI3vU>.
  3. Make a PowerPoint Presentation on given topic.
    - Different types of Popular Mobile applications/Games based on Artificial Intelligence.

OR

    - History of Artificial Intelligence and Meaning of Artificial Intelligence.
  4. Games are an integral part of our culture. People across the world participate in different kinds of games as a form of social interaction, competition and enjoyment. Play the following AI based Game on the link given below—

Link for Game 1 (Rock, Paper and Scissors):

<https://www.afiniti.com/corporate/rock-paperscissors>

Link for Game 2 (Mystery Animal):

<https://experiments.withgoogle.com/mystery-animal>

Link for Game 3 (Emoji Scavenger Hunt):

<https://emojiscavengerhunt.withgoogle.com/>

Write the experience of each game in your computer Notebook in 5 to 6 lines.

5. Revise all the work done in class.



**KENDRIYA VIDYALAYA NO.2 DELHI CANTT**  
**FIRST SHIFT**  
**SUMMER BREAK HOLIDAY HOMEWORK 2022-23**

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**CLASS ~~ 10**

**ENGLISH**

**NOTE: DO YOUR H.H.W. IN ENGLISH NOTEBOOK ONLY. FOR ANY DOUBT, CONTACT YOUR CONCERNED SUBJECT TEACHER.**

1. WRITE DOWN THE DETAILED SUMMARY OF FOLLOWING CHAPTERS/POEMS:
  - I. A LETTER TO GOD
  - II. NELSON MANDELA: A LONG WALK TO FREEDOM
  - III. TWO STORIES ABOUT FLYING
  - IV. A TRIUMPH OF SURGERY
  - V. THE THIEF'S STORY
  - VI. POEMS: DUST OF SNOW, FIRE & ICE, A TIGER IN THE ZOO.
  
2. WRITE DOWN ANY 5 UNSEEN PASSAGES OF MINIMUM 150 WORDS WITH QUESTIONS AND SOLVE IT.
  
3. WRITE DOWN ANY 6 FORMAL LETTERS AS GIVEN BELOW OF YOUR CHOICE: I LETTER TO THE EDITOR- 2 LETTERS.
  - II LETTER OF COMPLAINT (OFFICIAL)- 2 LETTERS.
  - iii LETTER OF PLACING ORDERS (OFFICIAL) – 2 LETTERS.
4. WRITE DOWN ALL THE 12 TENSES WITH ITS CONSTRUCTION AND USES OF IT. WRITE DOWN 3 EXAMPLES OF EACH TENSE. ( ie. TOTAL 36 EXAMPLES SHOULD BE THERE)

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**CLASS—10**

**Page-1**

## ग्रीष्मकालीन अवकाश गृह कार्य २०२२

कक्षा 10 हिंदी

विद्यार्थी दिया गया कार्य अलग कॉपी पर करेंगे।

अनुच्छेद लेखन : लगभग १०० शब्दों में निम्नांकित विषयों पर अनुच्छेद लिखें -

- 1)मोबाइल फोन की उपयोगिता
- 2)योग और स्वास्थ्य
- 3)मन के द्वारे द्वार हैं मन के जीते जीत

पत्र लेखन :- निम्नांकित विषयों पर पत्र लिखें:

- १) अपने छोटे भाई को शिक्षा का महत्व बताते हुए पढ़ने के लिए प्रेरित करें।
- २) अपनी माता जी को विद्यालय के वार्षिक उत्सव का वर्णन करते हुए पत्र लिखें।
- ३) अपने क्षेत्र के पुलिस अधीक्षक को क्षेत्र में बढ़ रही आपराधिक घटनाओं के विषय में जानकारी देते हुए ठोस कदम उठाने के लिए पत्र लिखें।

विज्ञापन लेखन : किसी साबुन कम्पनी के लिए आकर्षक विज्ञापन तैयार करें

मोबाइल फोन के लिए विज्ञापन तैयार करें

पाठ्य पुस्तक के करवाए गए सभी पाठों के अभ्यास तथा अतिरिक्त प्रश्न पूर्ण करें तथा याद करें।

व्याकरण खंड : संज्ञा , सर्वनाम, विशेषण , क्रिया ,क्रियाविशेषण की परिभाषा तथा भेदों का वर्णन लिखें तथा याद करें।

परियोजना कार्य : यह कार्य A4 शीट पर करें

अपनी पुस्तक के किसी भी एक पाठ को पढ़ें तथा उसका सम्पूर्ण विश्लेषण , पात्र परिचय , लेखक परिचय चित्र सहित प्रस्तुत करें।

अपना परिचय देते हुए अपनी रुचियों के विषय में लिखें तथा करोनाकाल के अनुभव लिखें।



# SCIENCE

Q1. Name the following:

- a) The process in plants that link light energy with chemical energy.
- b) The cell organelle where photosynthesis occurs
- c) Cell that surrounds a stomatal pore
- d) An enzyme secreted from gastric glands in stomach that act on proteins.

Q2. Name the correct substrates for the following enzymes:

- a) Trypsin
- b) Amylase
- c) Pepsin
- d) Lipase

Q3. Explain the three pathways of glucose breakdown in living organisms

Q4. Describe the process of urine formation in kidneys?

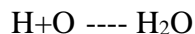
Q5. Expand the following:

- a) ATP
- b) ADP

Q6. Answer the following question:

- a) Write the formula of limestone?
- b) Name the element present in it?
- c) Which gas do we get when limestone is heated strongly?

Q7. What is wrong in the following equation?



Correct and balance it.

Q8. List the following as exothermic or endothermic reaction:

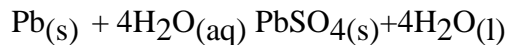
- Temperature of water increases on adding sulphuric acid to it.
- Heat is absorbed when water evaporates.
- Temperature drops when ammonium chloride dissolves in water.

Q9. Name the type of chemical reaction when

- Water is subjected to electrolysis.
- Calcium carbonate is heated
- Silver bromide is exposed to sunlight

Q10. Why does aluminum not undergo corrosion but iron does?

Q11. Name the substance oxidized, reduced, oxidizing agent, reducing agent in the following:



Q12. What is combination reaction?

Q13. What is decomposition reaction?

Q14) Draw a sectional view of the human heart and label on it the following parts:

- i) Aorta
- ii) Pulmonary arteries
- iii) Vena cava from upper body
- iv) Left ventricle

b) why is double circulation of blood necessary in human beings?

Q15)

i) Leaves of a healthy potted plant were coated with Vaseline to block the stomata. Will this plant remain healthy for long? State three reasons for your answer.

ii) state any two differences between autotrophic and heterotrophic nutrition.

Q16) what is displacement reaction? Give examples.

Q17) what is double displacement reaction? Give examples

Q 18. Draw the diagram of human digestive system, human respiratory system?

Q20. Read the passage and answer the following question: Clean a magnesium ribbon about 2 cm long by rubbing it with a sandpaper. Hold it with a pair of tongs. Burn it using a spirit lamp or burner and collect the ash so formed in a watch glass. Burn the magnesium ribbon keeping it as far as possible from our eye. What do you observe?

- (a). What is the symbol of magnesium?
- (b). Why is the magnesium ribbon rubbed with a sandpaper?
- (c) Name the ash formed because of burning of magnesium ribbon?
- (d). Name the elements present in the ash formed?
- (e) What is your observation?

### PROJECTS:

Q19. Write articles with pictures on – a) Pollution of the Ganga and Ganga Action Plan b) Chipko Andolan c) Narmada Bachao Andolan

# MATHS

## BASIC

1. If  $\text{HCF}(306, 657) = 9$ , then  $\text{LCM}(306, 657) = \underline{\hspace{2cm}}$ .
2. The sum of the exponents of prime factors in the prime factorisation of 250 is  $\underline{\hspace{2cm}}$ .
3. If the prime factorisation of a natural number  $n$  is  $2^4 \times 3^4 \times 5^3 \times 7$ , then the number of consecutive zeros in  $n$ , is  $\underline{\hspace{2cm}}$ .
4. If  $2^3 \times 3^a \times b \times 7$  is the prime factorisation of 2520, then  $5a + 2b = \underline{\hspace{2cm}}$ .
5. If  $2520 = 2^a \times 3^b \times 5^c \times 7^d$ , then  $a + b - 2c - 3d = \underline{\hspace{2cm}}$ .

## BASED ON LOTS

6. If  $a$  and  $b$  are two positive co-prime integers such that  $a = 12b$ , then  $\text{HCF}(a, 12) = \underline{\hspace{2cm}}$ .
7. If two positive integers  $m$  and  $n$  are expressible in the form  $m = a^2 b^3$  and  $n = a^3 b^2$ , where  $a, b$  are prime numbers, then  $\text{HCF}(m, n) = \underline{\hspace{2cm}}$  and  $\text{LCM}(a, b) = \underline{\hspace{2cm}}$ .
8. If the HCF and LCM of two positive integers  $a$  and  $b$  are  $x$  and  $y$  respectively, then  $\frac{x^2 y^2}{a^2 b^2} = \underline{\hspace{2cm}}$ .
9. The ratio between the HCF and LCM of 5, 15 and 20 is  $\underline{\hspace{2cm}}$ .
10. The HCF and LCM of two numbers are 33 and 264 respectively. When the first number is completely divided by 2 the quotient is 33. The other number is  $\underline{\hspace{2cm}}$ .
11. Two numbers are in the ratio 21 : 17. If their HCF is 5, the numbers are  $\underline{\hspace{2cm}}$  and  $\underline{\hspace{2cm}}$ .
12. Given that  $\text{LCM}(91, 26) = 182$ , then  $\text{HCF}(91, 26) = \underline{\hspace{2cm}}$ .
13. Two numbers are in the ratio 3 : 4 and their LCM is 120. The sum of the numbers is  $\underline{\hspace{2cm}}$ .
14. The LCM of  $2x, 5x$  and  $7x$  and  $7x$  is  $\underline{\hspace{2cm}}$ , where  $x$  is a positive integer.

## BASED ON HOTS

15. A positive integer  $m$  when divided by 11 gives remainder 6. If  $4m + 5$  is divided by 11, the remainder is  $\underline{\hspace{2cm}}$ .
16. The LCM of the smallest prime number and the smallest odd composite number is  $\underline{\hspace{2cm}}$ .
17. The LCM of the smallest prime number and the smallest composite number is  $\underline{\hspace{2cm}}$ .
18.  $6^n$  can not end with digit 0 for  $\underline{\hspace{2cm}}$  value of  $n$ .
19. If  $n$  is a natural number, then the number of consecutive zeros in  $7^n$ , is  $\underline{\hspace{2cm}}$ .
20. If the least prime factors of two positive integers  $a$  and  $b$  are 5 and 13 respectively, then the least prime factor of  $a + b$ , is  $\underline{\hspace{2cm}}$ .

### BASIC

1. Quadratic polynomials, whose zeroes are  $-4$  and  $3$  are given by \_\_\_\_\_.
2. The number of quadratic polynomials whose zeroes are  $2$  and  $-3$ , is \_\_\_\_\_.
3. The zeroes of the quadratic polynomial  $x^2 + x - 6$  are \_\_\_\_\_.
4. The quadratic polynomials, the sum and product of whose zeroes are  $7$  and  $12$  are given by \_\_\_\_\_.
5. If  $x + 1$  is a factor of the polynomial  $2x^3 + ax^2 + 4x + 1$ , then  $a =$  \_\_\_\_\_.
6. The graph of a quadratic polynomial intersects the  $x$ -axis at the most at \_\_\_\_\_ points.
7. If  $-4$  is a zero of the polynomial  $x^2 - x - (2k + 2)$ , then  $k =$  \_\_\_\_\_.
8. If  $4x^2 - 6x - m$  is divisible by  $x - 3$ , then  $m =$  \_\_\_\_\_.
9. If one zero of the quadratic polynomial  $2x^2 - 6kx + 6x - 7$  is negative of the other, then  $k =$  \_\_\_\_\_.
10. The sum of the zeros of the quadratic polynomial  $2x^2 - 3k$  is \_\_\_\_\_.

### BASED ON LOTS

11. Quadratic polynomials with rational coefficients having  $\sqrt{3}$  as a zero are given by \_\_\_\_\_.
12. If  $x + \alpha$  is a factor of the polynomial  $2x^2 + 2\alpha x + 4x + 12$ , then  $\alpha =$  \_\_\_\_\_.
13. If the product of the zeroes of the quadratic polynomial  $x^2 - 3ax + 2a^2 - 1$  is  $7$ , then  $a =$  \_\_\_\_\_.
14. The maximum number of zeros which a quadratic polynomial can have is \_\_\_\_\_.

### BASED ON HOTS

15. If  $a + b + c = 0$ , then a zero of the polynomial  $ax^2 + bx + c$ , is \_\_\_\_\_.
16. If  $a + c = b$ , then a zero of the polynomial  $ax^2 + bx + c$ , is \_\_\_\_\_.
17. If two of the zeroes of a cubic polynomial are zero, then it does not have \_\_\_\_\_ and \_\_\_\_\_ terms.
18. If all the zeroes of cubic polynomial  $x^3 + ax^2 - bx + c$  are negative then  $a$ ,  $b$  and  $c$  all have \_\_\_\_\_ sign.
19. If the zeroes of the quadratic polynomial  $ax^2 + x + a$  are equal, then  $a =$  \_\_\_\_\_.
20. If the zeroes of the quadratic polynomial  $ax^2 + bx + c$  are both negative, then  $a$ ,  $b$  and  $c$  all have the \_\_\_\_\_ sign.
21. If  $a$ ,  $a + b$ ,  $a + 2b$  are zeroes of the cubic polynomial  $x^3 - 6x^2 + 3x + 10$ , then  $a + b =$  \_\_\_\_\_.
22. The parabola representing a quadratic polynomial  $f(x) = ax^2 + bx + c$  opens upward when \_\_\_\_\_.
23. The parabola representing a quadratic polynomial  $f(x) = ax^2 + bx + c$  opens downward when \_\_\_\_\_.

### BASIC

1. The pair of equations  $y = 0$  and  $y = -7$  has \_\_\_\_\_ solution.
2. The pair of equations  $x = a$  and  $y = b$  has \_\_\_\_\_ solution.
3. If the pair of equations  $3x + 2ky = 2$  and  $2x + 5y + 1 = 0$  has no solution, then  $k =$  \_\_\_\_\_.
4. If a pair of linear equations is consistent, then the lines representing them are either \_\_\_ or \_\_\_.
5. There is (are) \_\_\_\_\_ value(s) of  $c$  for which the pair of equations  $cx - y = 2$  and  $6x - 2y = 3$  have infinitely many solutions.
6. If a pair of linear equations is consistent with a unique solution, then the lines representing them are \_\_\_\_\_.
7. The pair of equations  $\lambda x + 3y = 7$ ,  $2x + 6y = 14$  will have infinitely many solutions for  $\lambda =$  \_\_\_\_\_.
8. If the pair of equations  $2x + 3y - 5 = 0$  and  $px - 6y - 8 = 0$  has a unique solution for all real values of  $p$  except \_\_\_\_\_.
9. If the lines represented by the equations  $3x - y - 5 = 0$  and  $6x - 2y - p = 0$  are parallel, then  $p$  is equal to \_\_\_\_\_.
10. If  $x = a$ ,  $y = b$  is the solution of the pair of equations  $x - y = 2$  and  $x + y = 4$ , then  $a =$  \_\_\_\_\_ and  $b =$  \_\_\_\_\_.

### BASED ON LOTS

11. If one equation of a pair of dependent linear equations is  $5x - 7y + 2 = 0$ , then the second equation is given by \_\_\_\_\_.
12. If the pair of equations  $ax + 2y = 7$  and  $3x + by = 16$  represent parallel lines, then  $ab =$  \_\_\_\_\_.
13. The line  $4x + 3y - 12 = 0$  cuts the coordinate axes at  $A$  and  $B$ . The area of  $\Delta OAB$  is \_\_\_\_\_.
14. If  $2^{x+y} = 2^{x-y} = \sqrt{8}$ , then  $x =$  \_\_\_\_\_ and  $y =$  \_\_\_\_\_.
15. The system of equations  $ax + 3y = 1$ ,  $-12x + ay = 2$  has \_\_\_\_\_ for all real values of  $a$ .

### BASIC

1. If  $(k+1)x^2 + \frac{3}{2}x = 7$  is a quadratic equation, then  $k$  cannot be equal to \_\_\_\_\_.
2. Every quadratic equation has exactly \_\_\_\_\_ roots.
3. The values of  $k$  for which the quadratic equation  $2x^2 - kx + k = 0$  has equal roots are \_\_\_\_\_.
4. If  $\frac{1}{2}$  is a root of the equation  $x^2 + kx - \frac{5}{4} = 0$ , then the value of  $k$  is \_\_\_\_\_.
5. If one root of the quadratic equation  $3x^2 - 10x + k = 0$  is reciprocal of the other, then  $k =$  \_\_\_\_\_.
6. The values of  $k$  for which the quadratic equation  $x^2 - 4kx + k = 0$  has equal roots, are \_\_\_\_\_.

### BASED ON LOTS

7. If the arithmetic mean of the roots of the equation  $x^2 - 6x + 8 = 0$  is \_\_\_\_\_.
8. If the arithmetic mean of the roots of the equation  $x(x-2) + 4ax = 5$  is 3, then  $a =$  \_\_\_\_\_.

### BASED ON HOTS

9. If the equation  $mx^2 + 2x + m = 0$  is satisfied by only one real value of  $x$ , then the values of  $m$  are \_\_\_\_\_ and \_\_\_\_\_.
10. The quadratic equation with rational coefficients having  $\frac{\sqrt{3}}{2}$  as a root is \_\_\_\_\_.
11. The total number of values of  $x$  satisfying  $x^2 - 3|x| + 2 = 0$  is \_\_\_\_\_.
12. The number of real roots of the equation  $x^2 + 3|x| + 2 = 0$  is \_\_\_\_\_.
13. If the coefficient of  $x^2$  and the constant term of a quadratic equation have opposite signs, then the roots of the quadratic equation are \_\_\_\_\_ and \_\_\_\_\_.
14. If the coefficient of  $x^2$  and the constant term of a quadratic equation have the same sign and if the coefficient of  $x$  term is zero, then the quadratic equation has \_\_\_\_\_ roots.

# **SOCIAL SCIENCE**

## **SUBJECT- SOCIAL SCIENCE**

**Note: - Do Holiday Home Work in Social Science notebook or consult from your subject teacher.**

1. Map Activity:-

Note: - If map is not available you can draw/trace it from text book.

- a) Locate and label following on the map of Europe: - Belgium, Greece, Ireland, Scotland, England, Germany, Italy, Austria, Hungary, France, Poland, Spain, Denmark.
  - b) Types of soil in India: - Black Soil, Alluvial soil, Laterite soil, Arid Soil
2. Read about the process of Unification of Germany Italy and UK
  3. What steps did the French revolutionaries take to create a sense of collective identity among the French people?
  4. What were the features of liberalism in the nineteenth century Europe?
  5. Explain briefly the earth summit 1992.
  6. What are features of:
    - A. black soil
    - B. Alluvial soil
    - C. Arid soil
    - D. Laterite soil
  7. Explain classification of resources on various basis.
  8. Write difference between Bangar & Khadar.
  9. What is meant by development? How can the goals of development be different for different people? Explain by using suitable examples.
  10. Why is power sharing desirable? How is power shared among different organs of government?
  11. What was Napoleonic code of 1804? After its initial success why it failed to attract people?
  12. Prepare ten one-word answer type question- answers on the following chapters (Ten for each chapter): -
    - i) Rise of Nationalism In Europe
    - ii) Power Sharing
    - iii) Resources And Development
  13. (A) Make a project on Sikkim under EBSB: - Cover the following points
    - a) latitude & longitude
    - b) Language
    - c) natural vegetation



d)festivals

e) culture

f) Costumes

G) Song& dance

H) Tourist Place

B) Write about the unsung heroes from Sikkim. Paste necessary pictures and use your creativity.

## ARTIFICIAL INTELLIGENCE-417

**Holidays are a break from studies, explanation and completing tasks. But are holidays supposed to make you lazy?**

**No definitely not!!!!!!**

**So, a few tasks have been planned to keep you occupied and help you**

**in discovering the creative being in you.**

### **General Instructions:**

- Make your presentations Captivating and informative.
  - Analyse your work before making presentation.
  - Save your work neatly labelled mentioning your name, class and section
  - Q No-1 & 2 should be done on a coloured A4 size sheet.
  - All the holiday homework will be marked out of 5 marks, it will be added as your portfolio marks.
  - PowerPoint Presentation will be submitted on my email id – [comp.1410.1@kvsrodelhi.in](mailto:comp.1410.1@kvsrodelhi.in)
1. Write biographies of any two youth icons who contributed in making Artificial intelligence a great success with pictures to make your page a source of attraction. You can use internet, talk to seniors, etc. Happy hunting!
  2. Collect the data on various career options in Artificial Intelligence.
  3. Watch the movie A.I. Artificial Intelligence by Spielberg during the summer holidays.
  4. Make a PowerPoint Presentation on given topic.
    - Effective communication
    - Methods of Communication
  5. Make a poster on different types of AI domains.
  6. Write down the history of AI on A4 Sheet.
  7. Write the coding for a simple calculator (addition, multiplication, subtraction, division) in PYTHON.
  8. Revise all the work done in class.



HAPPY  
Holidays

**KENDRIYA VIDYALAYA NO.2 DELHI CANTT**

**FIRST SHIFT**

**SESSION 2022-23**

**SUMMER BREAK HOLIDAY HOMEWORK**

**CLASS ~~ XII**

**ENGLISH**

- Q1. Write all the poetic devices used in 'My Mother at Sixty – six'. Which line from the poem you liked the most and why?
- Q2. Write the definition of the following figures of speech along with three examples each: Simile, metaphor, alliteration, repetition, transferred epithet, antithesis, hyperbole, onomatopoeia, paradox, personification, synecdoche.
- Q3. What is 'linguistic chauvinism' (look for the meaning in the dictionary). What is the purpose of one's language? Which language do you use while talking to your parents? Why did M. Hamel and the villagers of Alsace and Lorraine regret?
- Q4. Compare and contrast the characters of Saheb-e-Alam and Mukesh .
- Q5. Water supply will be suspended for eight hours (10 am to 6 pm) on 6th of March for cleaning of the water tank. Write a notice in about 50 words advising the residents to store water for a day. You are Karan Kumar/Karuna Bajaj, Secretary, Janata Group Housing Society, Palam Vihar, Kurnool.
- Q6. Write an article on long-term effects of COVID-19 on society (e.g. human interactions, career choices, tourism...)

**HINDI**

\*ग्रीष्मकालीन गृहकार्य\*

कक्षा-बारहवीं, विषय- हिंदी

1. प्रदत्त परियोजना कार्य पूरा करें। इस संबंध में विस्तृत सूचना अलग से दी जाएगी।
2. पढ़ाए गए पाठों की पुनरावृत्ति करें।
3. निम्नलिखित विषयों पर पत्र लिखिए-

(क). आप अपने विद्यालय में तुलसी जयंती मनाना चाहते हैं। इस संबंध में अनुमति हेतु अपने विद्यालय के प्रधानाचार्य को पत्र लिखिए तथा उनसे इस कार्यक्रम की अध्यक्षता हेतु भी अनुरोध कीजिए।

(ख) आप 18 वर्ष के हो चुके हैं। आपने मतदाता सूची में नाम दर्ज करने के लिए प्रार्थना पत्र दिया था जिस पर अभी तक कोई कार्यवाही नहीं हुई है और न ही आपको कोई सूचना मिली है। इस संदर्भ में चुनाव अधिकारी को एक शिकायती पत्र लिखिए।

4. निम्नलिखित विषयों पर 100 से 150 शब्दों में रचनात्मक लेखन कीजिए ।

- (क) मेरी पहली विमान/रेल यात्रा
- (ख) अस्पताल में इलाज के लिए लंबी कतारें
- (ग) आसमान छूती महंगाई

## MATHS

Maths and Applied Maths

All examples from NCERT Book on

- 1. Matrices
- 2. determinant

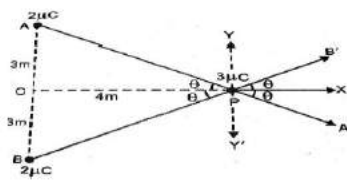
All questions based on Matrices & Determinants from Previous years CBSE question papers.

## PHYSICS

HOLIDAY HOMEWORK PHYSICS CLASS XII

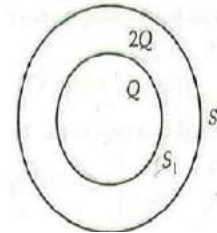
1. Answer the following
  - (a) Define electric flux. Write its SI unit
  - (b) A uniform electric field  $\mathbf{E} = E_x \mathbf{i}$  N/C for  $X > 0$  and  $\mathbf{E} = -E_x \mathbf{i}$  N/C for  $X < 0$  are given. A right circular cylinder of length 'l' cm and radius 'r' cm has its centre at the origin and its axis along the x-axis. Find out the net outward flux. Using Gauss's law write the expression for the net charge within the cylinder.
2. State Gauss's theorem in electrostatics. Using this theorem, derive an expression for the electric field intensity due to an infinitely long, straight wire of linear charge density ' $\lambda$ '  $\text{Cm}^{-1}$ .
3.
  - (a) Define the term 'electric dipole moment'. Is it a scalar or a vector?
  - (b) Deduce an expression for the electric field at a point on the equatorial plane of an electric dipole of length  $2a$ .
4. A point charge is placed at the centre of a spherical Gaussian surface. How will electric flux change if
  - (a) The sphere is replaced by a cube of same or different volume.
  - (b) A second charge is placed near, and outside the original sphere.
  - (c) A second charge is placed inside the sphere
  - (d) The original charge is replaced by an electric dipole
  - (e) The magnitude of charge is doubled
5. An electric dipole of length 2 cm is placed with its axis making an angle of  $60^\circ$  to a uniform electric field of  $10^5$  N/C. If it experiences a torque of  $8\sqrt{3}$  Nm. Calculate
  - (a) Magnitude of the charge on the dipole, and
  - (b) Potential energy of the dipole.

Two equal positive charges each of  $2\mu\text{C}$  interact with a third positive charge of  $3\mu\text{C}$  situated as shown. Calculate the magnitude and direction of force on the  $3\mu\text{C}$  charge.



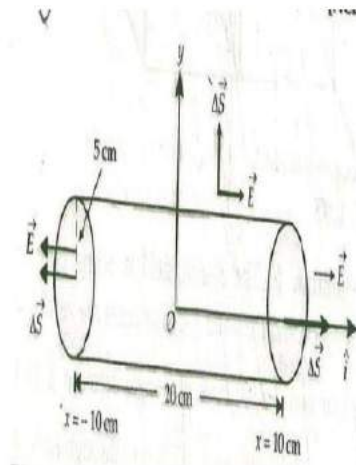
$S_1$  and  $S_2$  are two hollow concentric spheres enclosing charges  $Q$  and  $2Q$  respectively as shown in fig

- What is the ratio of the electric flux through  $S_1$  and  $S_2$  ?
- How will the electric flux through the sphere  $S_1$  change, if a medium of dielectric constant 5 is introduced in the space inside  $S_1$  in place of air ?



Two fixed point charges  $+4e$  and  $+e$  units are separated by a distance  $a$ . where should the third point charge be placed for it to be in equilibrium?

An electric field is uniform, and in the positive  $x$  direction for positive  $x$  and uniform with the same magnitude in the negative  $x$  direction for negative  $x$ . It is given that a right circular cylinder of length  $20\text{ cm}$  and radius  $5\text{ cm}$  has its centre at the origin and its axis along the  $x$ -axis so that one face is at  $x = +10\text{ cm}$  and the other is at  $x = -10\text{ cm}$



- What is the net outward flux through each flat face ?
- What is the flux through the side of the cylinder ?
- What is the net outward flux through the cylinder ?
- What is the net charge inside the cylinder

Two small identical electrical dipoles  $AB$  and  $CD$ , each of dipole moment ' $p$ ' are kept at an angle of  $120^\circ$  as shown in Fig. What is the resultant dipole moment of this combination? If this system is subjected to electric field ( $E$ ) directed along  $+X$  direction, what will be the magnitude and direction of the torque acting on this.

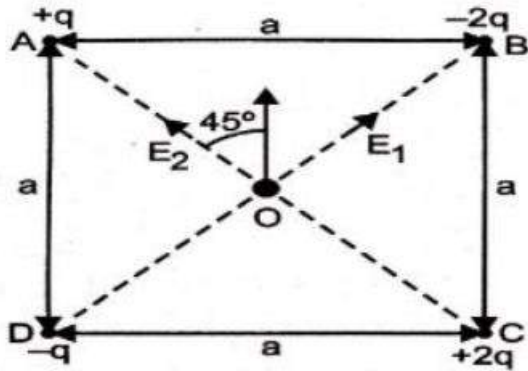
11. Two opposite corners of a square carry  $Q$  charge each and the other two opposite corners of the same square carry  $q$  charge each. If the resultant force on  $q$  is zero, how are  $Q$  and  $q$  related?

12. Two point charges  $+q$  and  $-2q$  are placed at the vertices B and C of an equilateral triangle ABC of side  $a$ . Obtain the expression for magnitude and direction of resultant electric force at the vertex A due to these two charges.

13. Derive formula for electric field due to thin charged spherical shell at a point a) inside b) outside c) on the surface.

Plot graph of  $E$  vs  $r$  (distance).

14. What are the magnitude and direction of electric field at centre of the square in fig, if  $q = 1.0 \times 10^{-8} \text{ C}$  and  $a = 5 \text{ cm}$



15. Complete the following practicals in practical file-

1. To determine resistance of two / three wires by plotting a graph for potential difference versus current.
2. To find resistance of a given wire using metre bridge.

16. Read chapter- electric potential and capacitance & current electricity

Make an activity file and write the following activity .

1. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
2. To assemble the components of a given electrical circuit.
3. To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.

## CHEMISTRY

**Do all the Question given in the link below---**

<https://drive.google.com/file/d/1sI3uDpC2oQrGQFsebya1G7xZvhsSoMsa/view?usp=sharing>

CLASS - 12

PAGE-- 4

# **BIOLOGY**

## **(SOLVE ALL THE QUESTIONS)**

1. The microscopic pollen grains of the past are obtained as fossils. Mention the characteristic of the pollen grains that makes it happen.
2. Mention the pollinating agent of an inflorescence of small dull coloured flowers with well exposed stamens and large feathery stigma. Give any one characteristic of pollen grains produced by such flowers.
3. Name the type of flower which favours cross pollination.
4. Why is bagging of the emasculated flowers essential during hybridisation experiments?
5. The meiocyte of rice has 24 chromosomes. How many chromosomes are present in its endosperm?
6. Why do pollen grains of some flowers trigger 'sneezing' in some people?
7. How do the pollen grains of Vallisneria protect themselves?
8. Mention the unique feature with respect to flowering and fruiting in bamboo species.
9. How many pollen grains and ovules are likely to be formed in the anther and the ovary of an angiosperm bearing 25 microspore mother cells and 25 megaspore mother cells respectively?
10. How many microspore mother cells would be required to produce one hundred pollen grains in a pollen-sac? And why?
11. How does colostrum provide initial protection against diseases to new born infants? Give one reason.
12. List the changes that the primary oocyte undergoes in the tertiary follicular stage in the human ovary.
13. Name the embryonic stage that gets implanted in the uterine wall of a human female.
14. What stimulates pituitary to release the hormone responsible for parturition? Name the hormone.
15. Mention the function of trophoblast in human embryo.
16. Mention the location and the function of Leydig cells in humans.
17. Where is acrosome present in humans? Write its function.
18. Write the location and function of the Sertoli cells in humans.
19. When do the oogenesis and the spermatogenesis initiate in human females and males respectively?
20. Mention the difference between spermiogenesis and spermiation.
21. Where are fimbriae present in a human female reproductive system? Give their function.
22. Name the muscular and the glandular layers of human uterus. Which one of these layers undergoes cyclic changes during menstrual cycle? Name the hormone essential for the maintenance of this layer.
23. What is colostrum? Why is it important to be given to the newborn infants?

Where are the Leydig cells present? What is their role in reproduction?

4. Mention the fate of Corpus Luteum and its effect on the uterus in absence of fertilisation of the ovum in a human female.

5. Placenta acts as an endocrine tissue. Justify.

5. Differentiate between major structural changes in the human ovary during the follicular and luteal phase of the menstrual cycle.

## COMPUTER SCIENCE

### COMPUTER SCIENCE PRACTICAL LIST FOR CLASS XII

1. Write a python program to search an element in a list and display the frequency of element present in list and their location using Linear search by using user defined function. [List and search element should be entered by user]
2. Write a python program to search an element in a list and display the frequency of element present in list and their location using binary search by using user defined function. [List and search element should be entered by user]
3. Write a python program to pass list to a function and double the odd values and half even values of a list and display list element after changing.
4. Write a Python program input n numbers in tuple and pass it to function to count how many even and odd numbers are entered.
5. Write a Python program to function with key and value, and update value at that key in dictionary entered by user.
6. Write a Python program to pass a string to a function and count how many vowels present in the string.
7. Write a Python program to generator(Random Number) that generates random numbers between 1 and 6 (simulates a dice) using user defined function.
8. Write a python program to implement python mathematical functions.
9. Write a python program to implement python string functions.
10. Write a python program to read and display file content line by line with each word separated by #.
11. Write a python program to remove all the lines that contain the character 'a' in a file and write it to another file.
12. Write a python program to read characters from keyboard one by one, all lower case letters gets stored inside a file "LOWER", all uppercase letters gets stored inside a file "UPPER", and all other characters get stored inside "OTHERS"



# ACCOUNTS

**Click on the link below for Accounts Holiday Homework**

1.

<https://drive.google.com/file/d/1pNLEffSZmxjZfew2qbyLieLcOYL5WaEK/view?usp=sharing>

2.

<https://drive.google.com/file/d/1NUPMYJH1WM45EpkbcDYUYF1A5PTzpQN6/view?usp=sharing>

3.

<https://drive.google.com/file/d/1y4Mq98jObDKAkZVQcDlzKZ8KOItn6K2/view?usp=sharing>

## BUSINESS STUDIES

[Click on the link given for Business Studies Holiday Homework](#)

## ECONOMICS

1. Explain the role of RBI
2. WHAT ARE THE TOOLS USED BY RBI to control credit or money supply  
in the economy explain all points
  - i. How does commercial bank create credit. Explain it when LRR is 20 percent and initial deposit is 5000 also mention the loan amount given and total deposit of bank
3. Define money supply, repo rate reverse repo rate, LRR, SLR, CRR
4. Explain the components of AD explain each
5. Explain the equilibrium of economy with the help of AD and AS approach
- 6) Distinguish between MPC and MPS and APC and APS
- 7) DERIVE consumption curve from saving curve and vice versa
- 8) Explain AD and AS approach and S and I approach of equilibrium output
- 9) Define MEC induced investment, autonomous investment, autonomous consumption, break even point (with diagram)
- 10) collect data , case study ,photographs and prepare questionnaire for project

## HISTORY

1. Make notes, mind map and text book exercise of chapter 1-4.
2. Make a project on the topic of book one and two of the chapters mentioned in syllabus 2022-23.

3. Prepare question bank related to chapter 1-4 related to 1,3,4, and 6 marks questions from previous year question papers,
4. The syllabus is given to you for reference.
5. Visit national museum, compare and prepare a report with reference to your Ch. 1.

## **GEOGRAPHY**

1. Learn and write notes of Ch-1,2 from Human Geography: Nature & Scope
2. Learn and write notes of Ch-1 from India: People & Economy
3. Prepare the following map work in the political map of India-
  - i) State with the highest and lowest level of urbanization.
  - ii) State with the highest and lowest level of population density.
  - iii) State with the highest and lowest population
  - iv) Cities with more than 10 million population in India.

## **POLITICAL SCIENCE**

1. Write question answers of ch2 in your notebooks.
2. Notes of additional topics
3. Project work- Prepare Project synopsis as per CBSE guidelines.  
Topics to be selected from book.

