

## WINTER BREAK HOLIDAYS HOMEWORK

(2021-22)

Sub : Hindi

Class : VI

- 1.परियोजना कार्य - किसी को दो पोस्ट कार्ड में पत्र लिखें , शिक्षक तथा संबंधी रिश्तेदार को (एक पोस्ट कार्ड की कीमत 50 पैसे है)
2. समाचार पत्र पढ़ें और अपनी रुचि के विचार, कविता, लघु कथा रेसिपी को संग्रहित करें।
- 3 . लिखना - अपने 1 दिन की दिनचर्या लिखें |पढ़े गए पाठों को दोहराएं| कठिनाइयों को नोट करें| शिक्षार्थी डायरी को पूरा करें।

Subject - Sanskrit

1. 8- 10 पाठों के प्रश्नों को दोहराएं |
2. धातु रूप लिख कर याद करें।
3. 1 से 50 तक संस्कृत में संख्या याद करें।
4. कोई एक गीत या पांच श्लोक याद कर माता-पिता को सुनाएं।
5. परियोजना कार्य - 10 सूक्तियां का संग्रह करें |कठिनाइयों को नोट करें |शिक्षार्थी डायरी को पूरा करें।

Subject - English

1. Write a paragraph on any one of the following : 5m
  - a. Good manners
  - b. Library
  - C. Importants of sports and games
2. Draft a notice on any one of the following : 5m
  - a. Tree plantation ceremony

- b. Donation of books to library
- 3. Revise the lessons and question answers covered in term -2 ( October to December) for PT - exam.

### Subject - Social science

1. Project work: major landforms of the earth
2. Mountains , types of mountains and uses
3. Plateaus types of plateau and uses
4. What is uses of plains

### Subject - Maths

1. Insert commas suitably and write the names according to system numeration
  - a. 87595762 b. 99900046
2. Insert commas suitably and write the names according to international system of numeration
  - a. 7452286 b. 48941793
3. Find the value of following
  - a.  $297 \times 17 + 297 \times 3$
  - b.  $81265 \times 169 - 81265 \times 69$
4. Find the products using suitable properties
  - a.  $738 \times 103$
  - b.  $258 \times 1008$
5. Draw the table given in page no :51
6. Find the L. C. M. Of the following
  - a. 9 and 4

b. 12 and 5

c. 15 and 4

**Subject: SCIENCE (15 marks)**

**Answer the following questions**

1. Using the “conductor tester” on an object it was found that the bulb begins to glow. Is that object a conductor or an insulator? Explain. **2M**
2. Draw the diagram of “PERISCOPE” **2M**
3. You are given an iron strip. How will you make it into a magnet? **2M**
4. How are clouds formed? **2M**
5. Write any two properties of a magnet. **2M**
6. How will you show that air supports burning? **5M**

**KENDRIYA VIDYALAYA INS KALINGA**

**Class VII**

**DECEMBER-21 HOLIDAY HOME WORK**

**Subject: English**

1. Write the important new words with their meanings from the last four lessons.
2. Write an essay on "Importance of Time"
3. Write Twenty Verbs with their tense forms
4. Write the questions and Answers of the Lesson "The Story of the Cricket"

**Subject: Hindi**

परियोजना कार्य - किसी को दो पोस्ट कार्ड में पत्र लिखें , शिक्षक तथा संबंधी रिश्तेदार को (एक पोस्ट कार्ड की कीमत 50 पैसे है)

2. समाचार पत्र पढ़ें और अपनी रुचि के विचार, कविता, लघु कथा रेसिपी को संग्रहित करें।
3. लिखना - अपने 1 दिन की दिनचर्या लिखें |पढ़े गए पाठों को दोहराएं| कठिनाइयों को नोट करें| शिक्षार्थी डायरी को पूरा करें।

**Subject -Social Science**

1. How was the administration of the ahom state organised
2. Brief write about Shankara
3. Give reasons
  - i) the rainforests are depleting
  - ii) paddy is grown the Ganga-Brahmaputra plains
4. What do you understand about the link between media and big business from this diagram
5. Explain how a chain of markets is formed what purpose does it serve

## Subject:SCIENCE

- 1)MAKE A MODEL OF ELECTRIC CIRCUIT (5 M)
- 2) MAKE A MODEL OF ELECTROMAGNET
- 3) MAKE NEWTONS DISC. (5)
- 4) SOLVE THE EXERCISE FROM LESSON 15 LIGHT (5M)

## SUBJECT:MATHS

- 1.write the properties of integers with respect to addition
- 2.write the prime numbers below 100
- 3.solve the equations a) $10p+10=100$  b) $3s+12=0$  c) $3(n-5)=21$
- 4.draw the triangles i. equilateral ii. Isosceles iii. Scalen
- 5.find the ratio of  
i) rs 5 to 50 paise ii)9m to 27cm

## Subject:Sanskrit

कक्षा vii

विषय

8-12 पाठ के प्रश्नों को दोहरायें |  
धातुरूप लिखकर याद करें | कोई तीन पांचों लकार में  
1-100 संस्कृत में संख्या याद करें |  
कोई एक गीत या 5 श्लोक याद करके माता -पिता को सुनाएँ |  
परियोजना कार्य—20 सूक्तियों का संग्रह करें |  
. कठिनाइयों को नोट करें | लार्नर्स डायरी (learners diary)  
को पूरा करें |(समाचार पत्र पढ़ें और अपनी रुचि के विचार,  
कविता, लघुकथा ,रेसिपी आदि को संगृहीत करें |

संस्कृत

Viii

संस्कृत

8-12 पाठ के प्रश्नों को दोहरायें |  
धातुरूप लिखकर याद करें | कोई पांच  
1-100 संस्कृत में संख्या याद करें |  
कोई 2 गीत या 5 श्लोक याद करके माता -पिता को सुनाएँ |  
परियोजना कार्य—20 सूक्तियों का संग्रह करें | 3 गीत लिखें  
कठिनाइयों को नोट करें | लार्नर्स डायरी (learners diary) को  
पूरा करें |

## WINTER BREAK HOLIDAYS HOMEWORK

(2021-22)

**Class-VIII**

**Subject:Hindi**

विषय हिंदी कक्षा 8 शीतकालीन अवकाश गृह कार्य

1. श्री कृष्ण और सुदामा की दोस्ती से आपको क्या शिक्षा मिलती है ? उत्तर 8 से 10 पंक्तियों में लिखें।
2. अभि, प्र और अनु उपसर्गों का प्रयोग करके 3 - 3 नए शब्द लिखिए ।
3. अगर आपको ₹250 की आवश्यकता है, अभी आपके पिता के पास पैसे नहीं है । ऐसी स्थिति में आप पैसे की व्यवस्था कैसे करेंगे लिखिए।
4. पाठ अकबरी लोटा की शिक्षार्थी डायरी लिखिए।
5. चित्र सहित एक कविता लिखिए विषय है - 'अच्छे विद्यार्थी'।

## Subject-social science

1. How did Jyotirao the reformer justify their criticism of caste inequality in society
2. Difference between the following
  - i) agro based and mineral based industry
  - ii) public sector and joint sector industry
3. Explain the contents of an FIR
4. List two reasons why adivasis are becoming increasingly marginalised
5. What are various aspect which are ensued by the constitution for the minorities

### Subject : Science

1. What is fluid friction ? Give some examples
2. Write the characters of force.
3. Describe the nutritional requirements of adolescence.
4. Define the external and internal fertilization with examples.
5. Write the advantages & disadvantages of friction.

### Subject : Sanskrit

पाठ 8 से 12 के प्रश्नों को दोहराएं ।

1. कोई पांच धातु रूप लिख कर याद करें।
2. संस्कृत में 1 से 100 तक संख्या याद करें।
3. कोई दो गीत या पांच श्लोक याद कर माता-पिता को सुनाएं।
4. परियोजना कार्य  
3 गीत लिखें या 20 शक्तियों सूक्तियां का संग्रह करें।
5. शिक्षार्थी डायरी (LD) को पूरा करें और कठिनाइयों को नोट करें।

### Subject : English

Revise the lessons and question answers covered in term 2 (October to December) PT 2 exam.

1. Formal letter - write a letter to the principal Requesting him to create and provide facilities to cater to the needs of CWSN ( children with special needs). 5m

2. Draft a notice for the school notice board on any one of the following :

5m

- a. Van mahotsav
- b. Donation of books to library
- c. Drawing and painting competition

Subject- Maths

1. Represent  $-2/11$ ,  $-5/11$ ,  $-9/11$  on the number line.
2. Solve the linear equation:

$$m - \frac{(m-1)}{2} = 1 - \frac{(m-2)}{3}$$

3. Draw a pie chart for example 2 (page no. 80)
4. Write the squares of 1 to 50 numbers.
5. Compile the table of the exercise 9.2 (3rd sum).



# CLASS – 9

## WINTER BREAK HOMEWORK

### Subject:ENGLISH

#### ENRICHMENT

##### WEATHERING THE STORM IN ERSAMA:

1.Describe the cyclone and the role of Prashant and the villege in facing the challenging situation.(Picture to be used).

##### THE LAST LEAF:

2.Depression among the yteenagers and youth in the resent scenario. (WHY,The CONSEQUENCES & HOW TO OVERCOME IT)

##### ASSIGNMENT:HW NOTEBOOK

REACH FOR THE TOP: Bio-Sketch of Santosh Yadav and Maria Sharapova –

(their strougle in life to reach their goals),qualities required for our success.

### Subject:SANSKRIT

कक्षा ix	
विषय	पढाये गए पाठ के प्रश्नों को दोहरायें   धातुरूप लिखकर याद करें   कोई 5 पाँचों लकार में 1-100 संस्कृत में संख्या याद करें
संस्कृत	समयबोधक / अव्यय / संधि के प्रश्नों को पुनः लिखें कोई एक गीत या 5 श्लोक याद करके माता -पिता को सुनाएँ   परियोजना कार्य—20 सूक्तियों का संग्रह / याद करें   • कठिनाइयों को नोट करें   लार्नर्स डायरी (learners diary) को पूरा करें   0समाचार पत्र पढ़ें और अपनी रुचि के विचार, कविता, लघुकथा ,रेसिपी आदि को संगृहीत करें

## Subject:HINDI

विषय -हिंदी कक्षा- 9 (शीतकालीन अवकाश गृह कार्य)

1. 'खेल हमारे स्वास्थ्य के लिए लाभकारी है' विषय को ध्यान में रखते हुए अनुच्छेद लिखिए। ( 20 से 25 पंक्तियां)
2. अपने मनपसंद किसी प्यारे पक्षी के साथ बातचीत करते हुए संवाद लिखिए। संवाद का विषय - 'पक्षी और मैं'
3. आगामी वर्ष से दसवीं कक्षा के बोर्ड परीक्षा के हटाए जाने के पक्ष विपक्ष में अपना विचार प्रकट करते हुए अपने मित्र को एक पत्र लिखिए। अनौपचारिक पत्र।
4. कोरोना काल में विद्यार्थियों की स्थिति को ध्यान में रखते हुए एक लघु कथा लिखिए।
5. 'मेरी पहचान हिंदी भाषा' विषय पर एक कविता लिखते हुए चित्रांकन कीजिए।

## Subject: Maths

1. Locate  $\sqrt{5}$  on numberline.
2. Divide the polynomial  $3x^4-4x^3-3x-1$  by  $x-1$
3. Plot the points  $(-3,7)$ ,  $(0, -3.5)$ ,  $(-1,-3)$ ,  $(4,4)$  and  $(2, -3)$  in the cartesian plane.
4. Sides QP and QR of triangle PQR are produced to points and T. If  $\angle SPR = 135^\circ$  and  $\angle PQT = 110^\circ$ . Find  $\angle PRQ$
5. Draw different types of circles. How many points does each pair have ?

## Subject: PHYSICS

### **WORK AND ENERGY TOTAL: MARKS:10**

- 1) Define work. How many types are there? 2M
- 2) Define energy. Write the names of different forms of energy. 2M
- 3) What is power? Write its SI unit. 2M
- 4) Define potential energy, give two examples. 2M
- 5) Define Kinetic energy, give two examples. 2M

## CHEMISTRY : (20 marks)

**Q1.** Write the atomic number and electronic configuration of Chromium and Copper . 3M

**Q2.** Write the formula of the following ions .

ammonium ion, acetate ion , phosphide ion. 3M

Q3. Give five examples for divalent positive ions. 3M

Q4. Give five examples for divalent negative ions. 3M

Q5. Calculate the number of moles in 210 grams of Acetic acid 3M.

Q6. How many number of molecules present in 120 grams of sodium hydroxide 3M.

Q7. Define "mole". And what is the Avogadro number. 2M

## Subject: SOCIAL

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### PROJECT WORK

CLASS IX (2021-22)

**05 Marks**

1. Every student has to compulsorily undertake one project on Disaster Management.
2. **Objectives:** The main objectives of giving project work on Disaster Management to the students are to:
  - a. create awareness in them about different disasters, their consequences and management
  - b. prepare them in advance to face such situations
  - c. ensure their participation in disaster mitigation plans
  - d. enable them to create awareness and preparedness among the community.
3. The project work should also help in enhancing the Life Skills of the students.
4. If possible, **different forms of art** may be integrated in the project work.

## Subject: AI(Artificial Intelligence)

1.What is Python

2.Why Python?

3.What can Python do?

4.How to use Python

5.Write about Python Interpreter

6.Write about Compiler

7.Explain Python Tokens

(i).Keywords (ii).Identifiers(Names) (iii).Literals (iv).Operators

## **Subject: Biology**

1. Write the general characters of Angiosperms
2. Write general characters of vertebrate
3. Write the General characters of Fishes.
4. Describe the important characters of Birds.
5. Describe the important characters of Class Mammalia.

## Winter Break Holidays Homework(2021-22)

### Class X

### Mathematics QUADRATIC EQUATIONS

1. Check whether the following are quadratic equations :

- (i)  $(x+1)^2 = 2(x-3)$                       (ii)  $x^2 - 2x = (-2)(3-x)$   
(iii)  $(x-2)(x+1) = (x-1)(x+3)$                       (iv)  $(x-3)(2x+1) = x(x+5)$   
(v)  $(2x-1)(x-3) = (x+5)(x-1)$                       (vi)  $x^2 + 3x + 1 = (x-2)^2$   
(vii)  $(x+2)^2 = 2x(x^2-1)$                       (viii)  $x^3 - 4x^2 - x + 1 = (x-2)^3$

1. Find the roots of the following quadratic equations by factorisation:

- (i)  $x^2 - 3x - 10 = 0$                       (ii)  $2x^2 + x - 6 = 0$   
(iii)  $\sqrt{2}x^2 + 7x + 5\sqrt{2} = 0$                       (iv)  $2x^2 - x + \frac{1}{8} = 0$   
(v)  $100x^2 - 20x + 1 = 0$

3. Find the roots of the following equations:

- (i)  $x - \frac{1}{x} = 3, x \neq 0$                       (ii)  $\frac{1}{x+4} - \frac{1}{x-7} = \frac{11}{30}, x \neq -4, 7$

4. The sum of the reciprocals of Rehman's ages, (in years) 3 years ago and 5 years from now is  $\frac{1}{3}$ . Find his present age.
5. In a class test, the sum of Shefali's marks in Mathematics and English is 30. Had she got 2 marks more in Mathematics and 3 marks less in English, the product of their marks would have been 210. Find her marks in the two subjects.
6. The diagonal of a rectangular field is 60 metres more than the shorter side. If the longer side is 30 metres more than the shorter side, find the sides of the field.
7. The difference of squares of two numbers is 180. The square of the smaller number is 8 times the larger number. Find the two numbers.
8. A train travels 360 km at a uniform speed. If the speed had been 5 km/h more, it would have taken 1 hour less for the same journey. Find the speed of the train.
9. Two water taps together can fill a tank in  $9\frac{3}{8}$  hours. The tap of larger diameter takes 10 hours less than the smaller one to fill the tank separately. Find the time in which each tap can separately fill the tank.
10. An express train takes 1 hour less than a passenger train to travel 132 km between Mysore and Bangalore (without taking into consideration the time they stop at intermediate stations). If the average speed of the express train is 11 km/h more than that of the passenger train, find the average speed of the two trains.
11. Sum of the areas of two squares is  $468 \text{ m}^2$ . If the difference of their perimeters is 24 m, find the sides of the two squares.

1. Find the nature of the roots of the following quadratic equations. If the real roots exist, find them:

(i)  $2x^2 - 3x + 5 = 0$

(ii)  $3x^2 - 4\sqrt{3}x + 4 = 0$

(iii)  $2x^2 - 6x + 3 = 0$

2. Find the values of  $k$  for each of the following quadratic equations, so that they have two equal roots.

(i)  $2x^2 + kx + 3 = 0$

(ii)  $kx(x - 2) + 6 = 0$

## AIRTHEMATIC PROGRESSION

2. Write first four terms of the AP, when the first term  $a$  and the common difference  $d$  are given as follows:

(i)  $a = 10, \quad d = 10$

(ii)  $a = -2, \quad d = 0$

(iii)  $a = 4, \quad d = -3$

(iv)  $a = -1, \quad d = \frac{1}{2}$

(v)  $a = -1.25, \quad d = -0.25$

3. For the following APs, write the first term and the common difference:

(i)  $3, 1, -1, -3, \dots$

(ii)  $-5, -1, 3, 7, \dots$

(iii)  $\frac{1}{3}, \frac{5}{3}, \frac{9}{3}, \frac{13}{3}, \dots$

(iv)  $0.6, 1.7, 2.8, 3.9, \dots$

4. Which of the following are APs? If they form an AP, find the common difference  $d$  and write three more terms.

(i)  $2, 4, 8, 16, \dots$

(ii)  $2, \frac{5}{2}, 3, \frac{7}{2}, \dots$

(iii)  $-1.2, -3.2, -5.2, -7.2, \dots$

(iv)  $-10, -6, -2, 2, \dots$

(v)  $3, 3 + \sqrt{2}, 3 + 2\sqrt{2}, 3 + 3\sqrt{2}, \dots$

(vi)  $0.2, 0.22, 0.222, 0.2222, \dots$

(vii)  $0, -4, -8, -12, \dots$

(viii)  $-\frac{1}{2}, -\frac{1}{2}, -\frac{1}{2}, -\frac{1}{2}, \dots$

4. Which term of the AP: 3, 8, 13, 18, ... is 78?
5. Find the number of terms in each of the following APs :
  - (i) 7, 13, 19, ..., 205
  - (ii)  $18, 15\frac{1}{2}, 13, \dots, -47$
6. Check whether  $-150$  is a term of the AP: 11, 8, 5, 2, ...
7. Find the 31st term of an AP whose 11th term is 38 and the 16th term is 73.
8. An AP consists of 50 terms of which 3rd term is 12 and the last term is 106. Find the 29th term.
9. If the 3rd and the 9th terms of an AP are 4 and  $-8$  respectively, which term of this AP is zero?
10. The 17th term of an AP exceeds its 10th term by 7. Find the common difference.
11. Which term of the AP: 3, 15, 27, 39, ... will be 132 more than its 54th term?
12. Two APs have the same common difference. The difference between their 100th terms is 100, what is the difference between their 1000th terms?
13. How many three-digit numbers are divisible by 7?
14. How many multiples of 4 lie between 10 and 250?
15. For what value of  $n$ , are the  $n$ th terms of two APs: 63, 65, 67, ... and 3, 10, 17, ... equal?
16. Determine the AP whose third term is 16 and the 7th term exceeds the 5th term by 12.

### 3. In an AP:

- (i) given  $a = 5, d = 3, a_n = 50$ , find  $n$  and  $S_n$ .
- (ii) given  $a = 7, a_{13} = 35$ , find  $d$  and  $S_{13}$ .
- (iii) given  $a_{12} = 37, d = 3$ , find  $a$  and  $S_{12}$ .
- (iv) given  $a_3 = 15, S_{10} = 125$ , find  $d$  and  $a_{10}$ .
- (v) given  $d = 5, S_9 = 75$ , find  $a$  and  $a_9$ .
- (vi) given  $a = 2, d = 8, S_n = 90$ , find  $n$  and  $a_n$ .
- (vii) given  $a = 8, a_n = 62, S_n = 210$ , find  $n$  and  $d$ .
- (viii) given  $a_n = 4, d = 2, S_n = -14$ , find  $n$  and  $a$ .
- (ix) given  $a = 3, n = 8, S = 192$ , find  $d$ .
- (x) given  $l = 28, S = 144$ , and there are total 9 terms. Find  $a$ .

## **Subject: Physics**

### **ELECTRICITY**

**MARKS:10**

- 1) A current of 0.2 A is drawn by a filament of an electric bulb for 5 minutes. Find the amount of electric charge that flows through the circuit
- 2) How much work is done in moving a charge of 3 C across two points having a potential difference 24 V?
- 3) On what factors does the resistance of a conductor depend?
- 4) Will current flow more easily through a thick wire or a thin wire of the same material, when connected to the same source? Why?
- 5) Why are coils of electric toasters and electric irons made of an alloy rather than a pure metal?

## **Subject: SCIENCE (20 marks)**

- Q1.** Draw the modern periodic table. 10M
- Q2.** Define atom . give three examples. 2M
- Q3 .** define compound. Give three examples. 2M
- Q4.** Define Atomicity . give three examples. 2M
- Q5.** Give any four examples for mono atomic elements. 2M
- Q6.** Write the atomicity of the following elements.  
Neon, ozone, phosphorus, sulphur iodine. 2M

## **Subject : Biology**

1. Describe the vegetative reproduction in plants with suitable examples
2. Describe the asexual reproduction in the animals
3. Draw the structure of LS of flower.
4. Draw the neat labeled diagram of the human male reproductive system
5. Draw the neat labeled diagram of human female reproductive system.



## **Subject-Social Science**

1. topic name- Nationalism in India  
The first world war, khilafat and non cooperation
2. Topic name-manufacturing industries  
Classification of industries
3. Lifelines of national economy  
Transport-roadways, railways, pipelines ,,waterways ,Airways
4. Topic name- political parties  
National political parties  
Challenges to political parties
5. Topic name-money and credit  
Money as a medium of exchange  
Self help groups for the poor
6. Life lines of National Economy(Map point)
  - i) Major sea port in India
  - ii) International airport

## **Subject: Information Technology(402)**

1. What is Data and Information?
2. What is Database?
3. What are the advantages and features of database?
4. What is DBMS? Explain it?
5. What is RDBMS?
6. What is Table? How to create a table in a database?
7. Explain about CRUD (Creation, Retrieving, Updating, Deletion)  
Operations in Database

## **CLASS - XI: DECEMBER HOLIDAY HOME WORK**

विषय - हिंदी कक्षा 11 ( शीतकालीन अवकाश गृह कार्य)

1. लड़की की विवाह की उम्र 21 वर्ष  
विषय को ध्यान में रखते हुए एक निबंध लिखिए । (20 से 25 पंक्ति)
2. अपने क्षेत्र में कोरोना के बचाव के लिए उचित व्यवस्था की ओर ध्यान आकृष्ट करते हुए स्वास्थ्य अधिकारी को एक पत्र लिखिए।
3. आपके विद्यालय में खेल दिवस का आयोजन किया गया है । उसकी रिपोर्ट समाचार लेखन के रूप में लिखिए ।
4. हिंदी परियोजना कार्य पूर्ण करें । सभी विद्यार्थियों को अपना परियोजना कार्य पूरा करना है।
5. अपने पसंद के किसी जानवर पर कविता लिखिए और चित्र भी बनाइए ।

## **CLASS - XI: SUB – ENG; DECEMBER HOLIDAY HOME WORK**

1. Make ten multiple choice questions with four options and answer from the last two lessons of the English text book
2. Write a letter to your friend describing your performance in the recent exams
3. Write an article on “Health is Wealth”
4. Write Thirty verbs with past tense and past participle forms
5. Read and write the summary of the last two stories
- 6.

## **XI PHYSICS WINTER BREAK HOLIDAY HOME WORK**

### **PROPERTIES OF MATTER MARKS:20 & TIME:45Mts.**

- 1) STATE ARCHIMEDES PRINCIPLE? WRITE ANY THREE APPLICATIONS. 2
- 2) DEFINE ELASTICITY? GIVE ANY TWO APPLICATIONS OF ELASTICITY. 2
- 3) State Bernoulli's theorem. Write any two applications. 2
- 4) Define viscosity. Write its SI unit and D.F. 2
- 5) State the three laws of thermodynamics. 3
- 6) Write any three applications of conduction of heat. 3
- 7) Define (a) linear expansion, (b) areal expansion of heat and volume expansion of heat. 3
- 8) What is capillarity? Write any four applications of capillarity. 3

## WINTER BREAK HOLIDAYS HOMEWORK

(2021-22)

**Subject: Biology**

**Class : XI**

Answer the following questions.

1. Describe the human digestive system with neat labeled diagram.
2. Explain the role of plant hormones in agriculture and horticulture.
3. Describe the importance of photosynthesis in plants and animals.
4. Draw the neat labeled diagram of human respiratory system.
5. Draw the neat labeled diagram of human heart and write its functions.

### WINTER BREAK HOMEWORK

#### CLASS-11<sup>th</sup> (CHEMISTRY) : (20 marks)

- Q1.** How many  $\sigma$  and  $\pi$  bonds are present in each of the following molecules?  
(a)  $\text{HC}\equiv\text{C}-\text{CH}=\text{CH}-\text{CH}_3$  (b)  $\text{CH}_2=\text{C}=\text{CH}-\text{CH}_3$  ( 2M )
- Q2.** Draw the structure of cyclo propane , cyclo pentane and cyclo hexane . 2M
- Q3.** Draw the structure of Furan , Thiophene and Pyridine. 2M
- Q4.** Write the order of decreasing priority for some functional groups. 3M
- Q5.** IUPAC name the following compounds is a)  $\text{CH}_2=\text{CHCH}_2\text{CH}(\text{OH})\text{CH}_3$ .  
b)  $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{CH}_2\text{CH}_2\text{CHO}$ . c)  $\text{CH}_3\text{CH}_2\text{COCH}_2\text{CH}_3$  (3M)
- Q5.** Define function group . and write the formula of ketone , amide functional groups. 3M
- Q6.** Write th secondary suffix for the functional groups of a) carboxylic acids b) Esters c) cyanide **3M**
- Q7.** What is an electromeric effect ? explain. 2M

Winter Break Holidays Home Work

(2021-22)

Subject: Computer Science

Class: XI

Society, Law and Ethics

- 1) Digital Footprints
- 2) Digital society and Netizen: net etiquettes, communication etiquettes, social media etiquettes
- 3) Data protection: Intellectual Property Right (copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trademark infringement), open source softwares and licensing (Creative Commons, GPL and Apache)

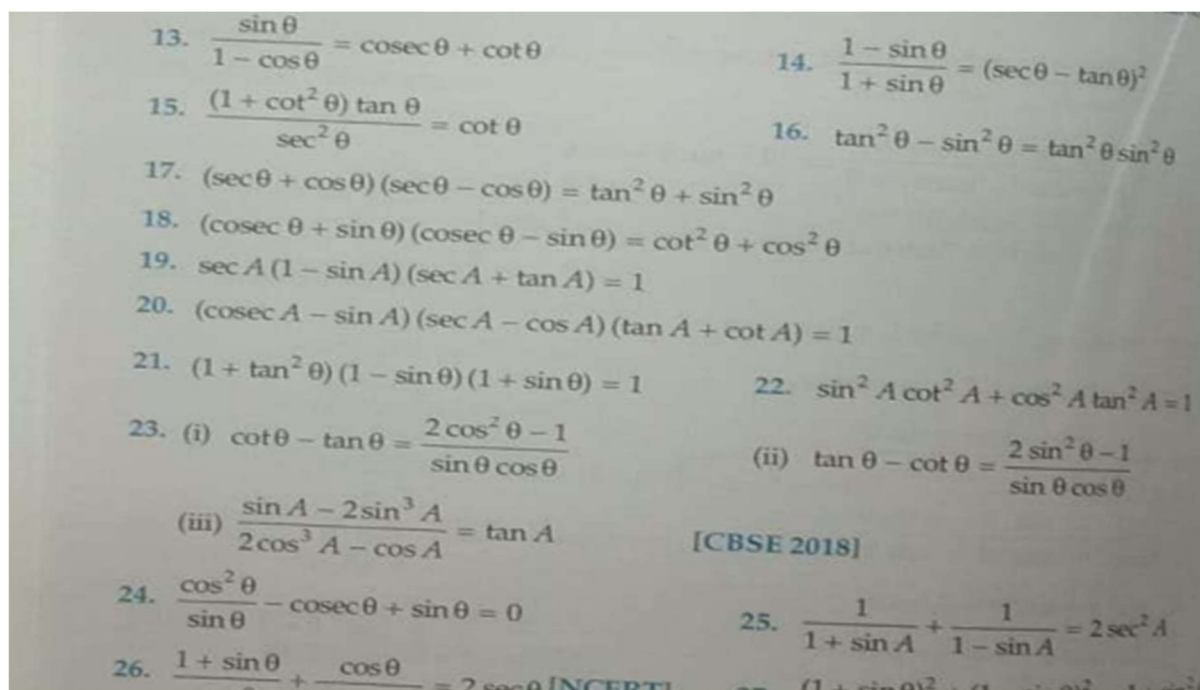
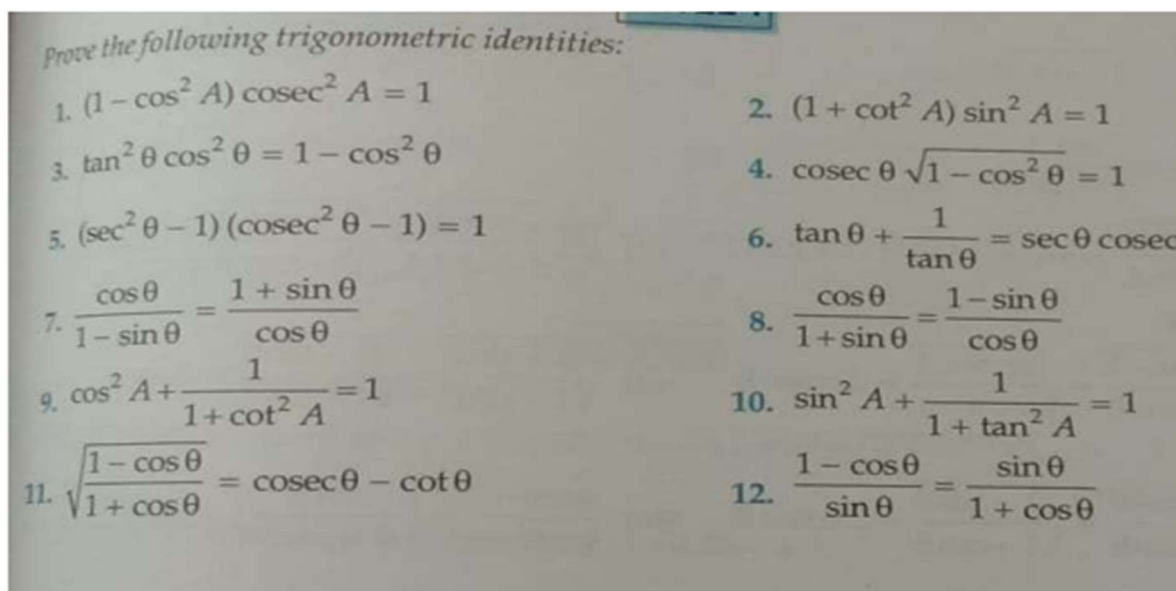
- 4) Cyber-crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, preventing cyber crime
- 5) Cyber safety: safely browsing the web, identity protection, confidentiality, cyber trolls and bullying.
- 6) Safely accessing web sites: malware, viruses, Trojans, adware
- 7) E-waste management: proper disposal of used electronic gadgets
- 8) Indian Information Technology Act (IT Act)
- 9) Technology & Society: Gender and disability issues while teaching and using computers

## Winter Break Holidays Home Work

(2021-22)

Subject: Maths

Class: XI



## KENDRIYA VIDYALAYA INS KALINGA

### XII ENG DECEMBER-21 HOLIDAY HOME WORK

1. Frame Ten MCQs from the last two lessons along with four options and answer.
2. Write two letters of placing order.
3. Write two letters of job Application.

### WINTER BREAK HOMEWORK

#### CLASS-12<sup>th</sup> (CHEMISTRY) : (20 marks)

- Q1. Explain the working of galvanic cell (voltaic cell) with diagrams 4M.
- Q2. what is Kohlrausch law. And write its applications 3M.
- Q3. Define specific conductivity and molar conductivity 2M
- Q3. Define rate of the reaction. 2M
- Q4. Define Rate law expression 2M
- Q5. Define Rate constant . 2M
- Q6. define order of the reaction . 2M
- Q7. Define zero order reaction. Derive integrated rate equation for zero order reaction . 3M

### XII PHYSICS WINTER BREAK HOLIDAY HOME WORK

#### DUAL NATURE OF MATTER

MARKS:20 & TIME:45Mts.

- 1) With what purpose was famous Davisson-Germer experiment with electrons performed? 1
- 2) An electron, an alpha particle and a proton have the same kinetic energy. Which one of the particles has the largest wave length? 1
- 3) Name the physical quantity which is available from the slope of the stopping potential Verses frequency. 1
- 4) Find the a) maximum frequency and b) minimum wave length of X – rays produced by 30 kilo volt electrons? 2
- 5) State the laws of photoelectric effect. 2
- 6) Write any 4 applications of photo electric cell. 2
- 7) Define (a) stopping potential and (b) work function in related to photoelectric effect. 2
- 8) What are matter waves? Derive an equation for de Broglie Wavelength of an electron. 3
- 9) The work function of caesium metal is 2.14 eV.

When light of frequency  $6 \times 10^{14}$  Hz is incident on the metal surface, photoemission of electrons occurs.

What is the (a) maximum kinetic energy of the emitted electrons,

(b) Stopping potential, and (c) maximum speed of the emitted photoelectrons?. 3

10) Calculate the stopping potential to be applied in a photocell using a cathode of work function 2.6 eV and an incident radiation of wavelength 300 nm. Given  $h = 6.6 \times 10^{-34}$  J s and  $c = 3 \times 10^8$  m/s. 3

## **WINTER BREAK HOLIDAYS HOMEWORK**

**(2021-22)**

**Sub : Science**

**Class : XII**

1. Describe the characters of innate immunity.
2. Describe the HIV replication in the living cell.
3. Draw the structure of anti – body molecule.
4. Write short notes on the following
  - a) Malt
  - b) Auto immunity
  - c) Lymphoid organs
5. Write the causative agents of following diseases.
  - a) Typhoid
  - b) Amoebiasis
  - c) Ringworm
  - d) Filaria
  - e) Ascariasis

**Winter Break Holidays Home Work**

**(2021-22)**

**Subject: Computer Science**

**Class: XII**

1. Explain Basics of DBMS
2. Explain SQL Types: DDL, DML, DCL.
3. Write SQL Queries : Select, Insert into, Update Set
4. What are the Aggregate functions? Explain in details
5. Explain about Where Clauses with suitable examples
6. Explain Group By and Having Clause with suitable examples
7. Write about Join operations. Explain its types with examples?

## Subject Maths

### ONE MARKER QUESTIONS

1. What is the value of the integral  $\int \frac{\cos 2x}{\sin^2 x \cos^2 x} dx$ .
2. What is the value of following integral:  $\int \frac{\cos(\sqrt{x})}{\sqrt{x}} dx$ .
3. Write the value of  $\int \frac{e^{5 \log x} - e^{3 \log x}}{x^2 - 1} dx$ .
4. What is the value of following integral:  $\int \frac{\cos x}{\sqrt{1 + \sin x}} dx$ .
5. What is the value of following integral:  $\int \frac{\sec^2(\log x)}{x} dx$ .
6. Evaluate:  $\int \frac{x^3 - 1}{x^2} dx$
7. Evaluate  $\int \frac{3 - 5 \sin x}{\cos^2 x} dx$
8. Write the value of  $\int \frac{1 - \tan x}{x + \log(\cos x)} dx$
9. Write the value of  $\int 3^x dx$ .
10. Write the value of  $\int \frac{dx}{\sin^2 x \cos^2 x}$ .
11. Evaluate  $\int \left( \frac{a}{x} + x^a + a^x \right) dx$
12. Write the value of  $\int \sin^{-1}(\cos \sqrt{x}) dx$
13. Write the value of  $\int \frac{1}{x \log x \log(\log x)} dx$
14. Write the value of  $\int (e^{x \log a} + e^{a \log x}) dx$
15. Write the value of anti-derivative of  $\tan^{-1}(\cot x)$ .

### TWO MARK QUESTIONS

Evaluate the following:

- |  |  |  |
|--|--|--|
| (i) $\int (\sin^6 x + \cos^6 x) dx$              | (ii) $\int \frac{\sin^2 x}{(1 + \cos x)^2} dx$                       | (iii) $\int \frac{\cos x - \sin x}{\sqrt{1 - \sin 2x}} dx$ |
| (iv) $\int \frac{x+1}{\sqrt{2x-1}} dx$           | (v) $\int \cos \left( 2 \cot^{-1} \sqrt{\frac{1-x}{1+x}} \right) dx$ | (vi) $\int \frac{\sqrt{x^2+1}}{x^4} dx$                    |
| (vii) $\int \cot^4 x dx$                         | (viii) $\int \frac{\sqrt{x^2 - a^2}}{x} dx$                          | (ix) $\int \frac{\sec x}{\log(\sec x + \tan x)} dx$        |
| (x) $\int \frac{1}{\sin x + \sqrt{3} \cos x} dx$ | (xi) $\int \frac{\sin x}{\sqrt{1 + \sin x}} dx$                      | (xii) $\int \frac{1}{\sec x + \cos ecx} dx$                |

### THREE MARK QUESTIONS

Evaluate the following:

(i)  $\int \frac{\tan \alpha - \tan x}{\tan \alpha + \tan x} dx$

(ii)  $\int \frac{x}{\sqrt{x+1}} dx$

(iii)  $\int \frac{x^{1/2}}{1+x^{3/4}} dx$

(iv)  $\int \frac{x^9}{(4x^2+1)^6} dx$

(v)  $\int \frac{x^3}{\sqrt{1+x^2}} dx$

(vi)  $\int \frac{\sqrt{1+x^2}}{x^4} dx$

(vii)  $\int \frac{x^2}{1-x^4} dx$

(viii)  $\int \frac{4x^2-16x-3}{(3x+1)(2x-1)^2} dx$

(ix)  $\int x^2 \cos^2 x dx$

(x)  $\int \frac{\sin^{-1} \sqrt{x}}{\sqrt{1-x}} dx$

(xi)  $\int \frac{x^4-1}{x^4+1} dx$

(xii)  $\int \frac{x^2-1}{(x^2+1)\sqrt{x^3+x^2+x}} dx$

(xiii)  $\int \frac{\cos 5x + \cos 4x}{1-2\cos 3x} dx$

(xiv)  $\int \frac{1-\sin x}{\sin x(1+\sin x)} dx$

(xv)  $\int \frac{2x+1}{(x^2+1)(x^2+4)} dx$

### MULTIPLE CHOICE QUESTIONS

#### INTEGRAL CALCULUS

Q1.  $\int \frac{\sec x}{(\sec x + \tan x)} dx = ?$

- (a)  $\tan x + \sec x + c$  (b)  $\tan x - \sec x + c$  (c)  $-\tan x + \sec x + c$  (d)  $-\tan x - \sec x + c$

Q2.  $\int \frac{\cos 2x}{\cos^2 x \sin^2 x} dx = ?$

- (a)  $-\cot x - \tan x + c$  (b)  $-\cot x + \tan x + c$  (c)  $\cot x - \tan x + c$  (d)  $\cot x + \tan x + c$

Q3.  $\int \frac{\sin x}{1+\sin x} dx = ?$

- (a)  $\sec x + \tan x + x + c$  (b)  $\sec x - \tan x + x + c$   
(c)  $-\sec x + \tan x + x + c$  (d) none of these

Q4.  $\int \cot^{-1} \left( \frac{\sin 2x}{1-\cos 2x} \right) dx = ?$

- (a)  $-\frac{1}{1+x^2} + c$  (b)  $-\frac{1}{1-x^2} + c$  (c)  $\frac{x^2}{2} + c$  (d)  $2x^2 + c$

Q5.  $\int \frac{x^4+1}{x^2+1} dx = ?$

- (a)  $\frac{x^3}{3} + x - \tan^{-1} x + c$  (b)  $\frac{x^3}{3} - x - 2 \tan^{-1} x + c$   
(c)  $\frac{x^3}{3} + x - 2 \tan^{-1} x + c$  (d) none of these

∞ f sin x t a



Q6.  $\int \frac{\sin x}{\sin(x-\alpha)} dx = ?$

(a)  $x \cos \alpha + (\sin \alpha) \log |\sin(x-\alpha)| + c$

(b)  $x \sin \alpha + (\sin \alpha) \log |\sin(x-\alpha)| + c$

(c)  $x \cos \alpha - (\sin \alpha) \log |\sin(x-\alpha)| + c$

(d)  $x \sin \alpha + (\sin \alpha) \log |\sin(x-\alpha)| + c$

Q7.  $\int \cos 4x \cos x dx = ?$

(a)  $\frac{1}{5} \sin 5x + \frac{1}{3} \sin 3x + c$

(b)  $\frac{1}{5} \cos 5x - \frac{1}{3} \cos 3x + c$

(c)  $\frac{1}{10} \sin 5x + \frac{1}{6} \sin 3x + c$

(d) none of these

Q8.  $\int 2^{3x+4} dx = ?$

(a)  $\frac{3}{\log 2} \cdot 2^{3x+4} + c$

(b)  $\frac{2^{3x+4}}{3(\log 2)} + c$

(c)  $\frac{2^{3x+4}}{2(\log 3)} + c$

(d) none of these

Q9.  $\int \frac{1}{x \cos^2(1+\log x)} dx = ?$

(a)  $\tan(1+\log x) + c$

(b)  $\cot(1+\log x) + c$

(c)  $\sec(1+\log x) + c$

(d) none of these

Q10.  $\int \frac{1}{\sqrt{x+3} - \sqrt{x+2}} dx = ?$

(a)  $\frac{2}{3}(x+3)^{3/2} - \frac{2}{3}(x+2)^{3/2} + c$

(b)  $\frac{2}{3}(x+3)^{3/2} + \frac{2}{3}(x+2)^{3/2} + c$

(c)  $\frac{3}{2}(x+3)^{3/2} - \frac{3}{2}(x+2)^{3/2} + c$

(d) none of these

Q11.  $\int \frac{1}{x\sqrt{x^6-1}} dx = ?$

(a)  $\frac{1}{3} \sec^{-1} x^3 + c$

(b)  $\frac{1}{3} \operatorname{cosec}^{-1} x^3 + c$

(c)  $\frac{1}{3} \cot^{-1} x^3 + c$

(d) none of these

Q12.  $\int \frac{2x \tan^{-1} x^2}{1+x^4} dx = ?$

(a)  $(\tan^{-1} x^2)^2 + c$

(b)  $2 \tan^{-1} x^2 + c$

(c)  $\frac{1}{2} (\tan^{-1} x^2)^2 + c$

(d) none of these

Q13.  $\int \frac{1+\sin x}{1+\cos x} dx=?$

(a)  $\tan \frac{x}{2} + 2 \log \left| \cos \frac{x}{2} \right| + c$

(b)  $-\tan \frac{x}{2} + 2 \log \left| \cos \frac{x}{2} \right| + c$

(c)  $\tan \frac{x}{2} - 2 \log \left| \cos \frac{x}{2} \right| + c$

(d) none of these

Q14.  $\int \frac{x^2+1}{x^4+1} dx=?$

(a)  $\frac{1}{\sqrt{2}} \tan^{-1} \left( x - \frac{1}{x} \right) + c$

(b)  $\frac{1}{\sqrt{2}} \cot^{-1} \left( x - \frac{1}{x} \right) + c$

(c)  $\frac{1}{\sqrt{2}} \tan^{-1} \left( \frac{1}{\sqrt{2}} \left( x - \frac{1}{x} \right) \right) + c$

(d) none of these

Q15.  $\int \sin^3 x \cos^3 x dx=?$

(a)  $-\frac{1}{4} \cos^4 x + \frac{1}{6} \cos^6 x + c$

(b)  $\frac{1}{4} \sin^4 x - \frac{1}{6} \sin^6 x + c$

(c)  $\frac{1}{4} \sin^4 x + \frac{1}{6} \cos^6 x + c$

(d) none of these

Q16.  $\int \sin^3 (2x+1) dx=?$

(a)  $\frac{1}{8} \sin^4 (2x+1) + c$

(b)  $\frac{1}{2} \cos (2x+1) + \frac{1}{3} \cos^3 (2x+1) + c$

(c)  $-\frac{1}{2} \cos (2x+1) + \frac{1}{6} \cos^3 (2x+1) + c$

(d) none of these

Q17.  $\int \frac{\cos x + \sin x}{1 - \sin 2x} dx=?$

(a)  $\log |\sin x - \cos x| + c$  (b)  $\frac{1}{\cos x - \sin x} + c$  (c)  $\log |\sin x + \cos x| + c$  (d) none of these

Q18.  $\int \sqrt{e^x - 1} dx=?$

(a)  $\frac{2}{3} (e^x - 1)^{3/2} + c$  (b)  $\frac{1}{2} \cdot \frac{e^x}{\sqrt{e^x - 1}} + c$  (c)  $2\sqrt{e^x - 1} - 2 \tan^{-1} \sqrt{e^x - 1} + c$  (d) none of these

Q19.  $\int x \sin x \cos x dx=?$

(a)  $-\frac{1}{4} x \sin 2x + \frac{1}{8} \cos 2x + c$

(b)  $\frac{1}{4} x \sin 2x - \frac{1}{8} \cos 2x + c$

(c)  $\frac{1}{7} x \sin 2x + \frac{1}{4} \cos 2x + c$

(d)  $-\frac{1}{4} x \cos 2x + \frac{1}{8} \sin 2x + c$

Q20.  $\int \tan^{-1} \left( \frac{2x-x}{1-3x^2} \right) dx = ?$

(a)  $3x \tan^{-1} x + \frac{3}{2} \log(1+x^2) + c$

(b)  $3x \tan^{-1} x - \frac{3}{2} \log(1+x^2) + c$

(c)  $3x \cos^{-1} x - \frac{3}{2} \sqrt{1-x^2} + c$

(d)  $3x \sin^{-1} x + \frac{3}{2} \sqrt{1-x^2} + c$

## Subject:Hindi

विषय - हिंदी कक्षा 12 ( शीतकालीन अवकाश गृह कार्य)

1. लड़की की विवाह की उम्र 18 से बढ़ाकर 21 कर दी गई है |अतः इसके क्या अच्छे परिणाम होंगे विषय को ध्यान में रखते हुए एक अनुच्छेद लिखिए 20 से 25 पंक्ति
2. अपने क्षेत्र में पेयजल की समस्या की ओर ध्यान आकृष्ट करते हुए स्वास्थ्य अधिकारी को एक पत्र लिखिए।
3. आपके विद्यालय में केंद्रीय विद्यालय फाउंडेशन दिवस का आयोजन किया गया है | उसकी रिपोर्ट समाचार लेखन के रूप में लिखिए |
4. हिंदी परियोजना कार्य पूर्ण करें | सभी विद्यार्थियों को उनके नाम के साथ परियोजना कार्य विषय दिया जा रहा है-

परियोजना के विषय निम्न प्रकार हैं-

दिव्या:- हमारे जीवन में शिक्षा का महत्व

धनलक्ष्मी : ग्रामीण परिवेश में स्त्री जीवन और भक्तिन

इंदुमती - जनसंचार :- विभिन्न माध्यमों के लिए लेखन

आश्रिता : बाजारी करण और नेतिक मूल्य

सोनालिका: - कोविड महामारी में मानवीय मूल्य धरातल पर

प्रिया व धन्यमालाश्री - जनसंचार

