

Maths Holidays' Homework Class-2A

Learning tables from 2 to 12 everyday.


English Holidays' Homework Class-2A

1. Reading a story book.

2. Reading a page of English textbook everyday.



हिंदी गृहकार्य

 अपने मनपसंद जानवर का चित्र बनाइये और उसके बारे में ५ या अधिक पंक्तिया लिखिये।


 सुलेख- १० पन्ने लिखिये।


 पढ़ो -

- ◆ पाठ-१ कक्कू और
- ◆ पाठ-२ शेखीबाज़ मक्खी




EVS HOLIDAY HOMEWORK

 Paste or draw {any 10 or more} different types of Animals and write, where they live and what they eat {their favorite food}.


 Collect and paste the dried flower petals and name the flower.



{Any 8 flowers or more}


 Learn the Question and answers of -

1. Poonam's day out
2. The plant fairy.

ENGLISH HOLIDAY HOMEWORK- CLASS 3A

 few sentences what you see when you get up early in the morning 

 Copy Writing - 5 pages 

 Read the question and answers of first 2 chapters and lessons-

- ◆ Good Morning 
- ◆ The Magic Garden 

12
34

Maths Holiday homework for class- 3

1) Work out ten different ways to write the numbers.

For example

1) $63 = 20 + 43$

2) $63 = 15 + 48$

3) $63 = 60 + 3$

a) 102

b) 99

c) 178

d) 85

e) 140

2) Write any five story problems from day to day life, involving addition and subtraction, and solve them.

3) Learn multiplication tables 1 to 12.

English and Hindi for Classes – III, IV, V

- Read children's' story books or magazines published for children. Write five words per day. Find out meaning from dictionary.
- Write self – composed Poems / Story. (five)
- Write two lines from your Text – book or any other story book every day.
- Read newspaper of English / Hindi / Local language containing any science news item .
- Write an essay about how you spent your holidays and what good habits you have inculcated. Importance of any new places you visited.

Mathematics Classes – III, IV, V

- Practice tables daily.
- Solve mathematical puzzles from the children books or magazines.
- Practice addition, subtraction, multiplication and division problems at-least 5 per day.
- Draw different geometrical pictures with geometrical shapes at-least ten and make model of geometrical shapes.

EVS Class III

- Observe your society. Write the different animals and plants you see. Write their names in English, Hindi and local language.
- Collect leaves, dry them add different animal shapes.
- Write different animal and plant habitats (where they live).

Holiday homework for class- 3

Maths

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For example

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2) $63 = 15 + 48$

3) $63 = 60 + 3$

a) 102

b) 99

c) 178

d) 85

e) 140

2) Write any five story problems from day to day life, involving addition and subtraction, and solve them.

3) Learn multiplication tables 1 to 12.

English

▪ Write few sentences what you see when you get up early in the morning.

▪ Copy writing -5pages

▪ Read the question and answers and the chapter from

Good Morning

The Magic Garden

EVS

Paste or draw {any 10 or more} different types of Animals and write, where they live and what they eat {their favorite food}.

Collect and paste the dried flower petals and name the flower.

{Any 8 flowers or more}

Learn the Question and answers of -

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Mathematics holiday homework class 4

1. Write and learn multiplication table from 2-15.
2. Make a paper scale of 20 cm.
3. Make a 3D brick using cardboard and measure its (a) length
(b) breadth &
(c) height
3. Make any two floor patterns using colour paper and stick it.
4. Write all odd, even and prime numbers till 100.

English holiday homework class 4

1. Practice one page handwriting daily.
2. Learn all the work done in your copy.
3. Read the english newspaper/text book daily and identify the difficult words and try to know their meaning from the Dictionary. (at least 5 words)
4. Draw different types of nose and label them.

EVS Holiday homework

Class -4

Subject - EVS

1. Make masks of any 5 animals and write few sentences on your favourite animal.
2. With the help of pictures write the uses of trees on A4 size paper.
3. Make a list of animal that live in a group, write the name of their group and also paste their pictures on A4 size paper.

Holiday homework for class- 4

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Mathematics

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(b) breadth &
(c) height
3. Make any two floor patterns using colour paper and stick it.
4. Write all odd, even and prime numbers till 100.

English

1. Practice one page handwriting daily.
2. Learn all the work done in your copy.
3. Read the english e-newspaper/text book daily and identify the difficult words and try to know their meaning from the Dictionary. (at least 5 words)
4. Draw different types of nose and label them.

EVS

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2. With the help of pictures write the uses of trees on A4 size paper.
3. Make a list of animals that live in a group, write the name of their group and also paste their pictures on A4 size paper.

Class IV

- Write about different special vehicles used in different states of our country. Make their models using locally available materials like cardboard boxes etc. Don't use thermocole.
- Draw and make the masks of different animal faces. Write about specialty of their body skin pattern and ears.
- Collect pictures of animals which live herds / colonies.


English and Hindi for Classes – III, IV, V

- Read children's' story books or magazines published for children. Write five words per day. Find out meaning from dictionary.
- Write self – composed Poems / Story. (five)
- Write two lines from your Text – book or any other story book every day.
- Read newspaper of English / Hindi / Local language containing any science news item .
- Write an essay about how you spent your holidays and what good habits you have inculcated. Importance of any new places you visited.

Mathematics Classes – III, IV, V


- Practice tables daily.
- Solve mathematical puzzles from the children books or magazines.
- Practice addition, subtraction, multiplication and division problems at-least 5 per day.
- Draw different geometrical pictures with geometrical shapes at-least ten and make model of geometrical shapes.

हिंदी गृहकार्य : कक्षा-४स (शिफ्ट १)

 अपने मनपसंद मौसम का चित्र बनाइये या लगाइये,

और उसके बारे में ५ या अधिक पंक्तियां लिखिये।

 सुलेख- ५ पन्ने लिखिये।

 अकबर और बीरबल की कहानियां पढ़िये,

कहानियों में आने वाले नए शब्द चुनकर उनके अर्थ लिखिये।

{ १० या अधिक नए शब्द और शब्दार्थ }

Holiday Homework for class 5 Mathematics

1. Tables from 2 to 16 to be written everyday.
2. Writing a number everyday in both international place value chart and in Indian place value chart and naming it.

Holiday homework for class- 5

English

- *Read aloud any magazine or textbook available.write down the word meaning and frame the sentence with the following letters S, U, R, E, M.
- *Think and write about any 2 things that bring smile on your face.Draw a picture of yourself with a big smile.

हिंदी गृहकार्य कक्षा 5

- *सुलेख लिखिए - अपनी लिखावट सुधारने के लिए सुलेख लिखिए।
- *हिन्दी की कोई भी कहानी की किताब से - पढ़ने का अभ्यास कीजिए।
- +संज्ञा, सर्वनाम,विशेषण और प्रत्यय -उपसर्ग का अभ्यास कीजिये।
- *आप ने छुट्टियों में क्या किया - उस पर एक अनुच्छेद लिखिए।
- *स्वरचित कविता लिखने का प्रयास करें।

EVS

1. News paper cutting - Read, cut and paste any -5 news regarding animals and explain that in one sentence.
2. Activity: Plant your Seeds (Plant few Seeds of fenugreek, coriander, green grams) in an eco-friendly pot and observe its growth for 15 days and record your observations.
3. Poster Making: Make your poster of A3 size paper writing a message to keep the Cooler, Tank, Drains and the area clean. (Stagnant Water) – To Stop the Spread of Malaria.

Class V

- Collect information about different endangered wild animals and different poisonous and non-poisonous snakes in India. Draw their pictures

Mathematics Classes – III, IV, V

- Practice tables daily.
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- Practice addition, subtraction, multiplication and division problems at-least 5 per day.
- Draw different geometrical pictures with geometrical shapes at-least ten and make model of geometrical shapes.

English and Hindi for Classes – III, IV, V

- Read children's' story books or magazines published for children. Write five words per day. Find out meaning from dictionary.
- Write self – composed Poems / Story. (five)
- Write two lines from your Text – book or any other story book every day.
- Read newspaper of English / Hindi / Local language containing any science news item .
- Write an essay about how you spent your holidays and what good habits you have inculcated. Importance of any new places you visited.

ग्रीष्मावकाश गृहकार्य

१. वह चिड़िया जो - कविता कण्ठस्थ कीजिये।
२. प्रतिदिन एक - एक हिंदी शब्द लिखकर, उसका अर्थ हिंदी और अंग्रेजी में लिखिए।
३. प्रतिदिन एक अनुच्छेद (पेराग्राफ) हिंदी पढ़ना है।
४. मौसम और जलवायु के विषय पर एक परियोजना (प्रोजेक्ट) बनाइए।

- 1)अकारान्तः पुल्लिङ्गः बालकशब्दः।
- 2)आकारान्तः स्त्रीलिङ्गः बालिकाशब्दः ।
- 3)अकारान्तः नपुसंकलिङ्गः पुष्पशब्दः ।
- 4)पठ् एवं स्था धातू लट् - लृट् - लङ् - लोटलकारे लेखनीयौ।

Any two of the following

1 make a model of solar system .

2.revolution of earth around sun.

3.different shapes of moon, along with elaborated information .

6 C ENGLISH

1. PREPARE A PICTURE DICTIONARY (20 WORDS)
2. MAKE A MINI DICTIONARY
3. BOOK REVIEW.(ANY ONE ENGLISH STORY BOOK)
4. LEARN TO SPEAK - PREPARE A SPEECH BASED ON THE FOLLOWING TOPICS (ANY ONE)
 - MY HOBBY
 - DISCIPLINE
 - HEALTH
 - MY AMBITION
 - MY SCHOOL
5. READ ENGLISH NEWSPAPER DAILY

ग्रीष्मकालीन ग्रहकार्य 2023-24

कक्षा:- 6स प्रथम पाली

विषय:- हिंदी

- वह चिड़िया जो कविता को याद करो।
- प्रतिदिन हिंदी कहानी की किताब पढो।
- प्रतिदिन एक हिंदी शब्द उसका अंग्रेजी अर्थ के साथ लिखो।
- खाने योग्य 5 पौधों के नाम और चित्र सहित परियोजना तैयार करो।

KENDRIYA VIDYALAYA MALLESWARAM

HOLIDAY HOMEWORK

IN A 40 PAGE NOTE BOOK, DO THE FOLLOWING HOMEWORKS:

1. PREPARE A PICTURE DICTIONARY (20 WORDS)

2. BOOK REVIEW. (READ STORY BOOKS AND WRITE A BOOK REVIEW ON ANY 1 OR 2 STORIES YOU LIKED THE MOST.)

3. LEARN HOW TO SPEAK - PREPARE A SPEECH BASED ON THE FOLLOWING TOPICS (ANY ONE)

- MY HOBBY
- DISCIPLINE
- HEALTH
- MY AMBITION
- MY SCHOOL

4. READ ENGLISH NEWSPAPER DAILY

**KENDRIYA VIDYALAYA MALLESWARAM SHIFT II
SUMMER VACATION HOLIDAY'S HOMEWORK 2023-24**

CLASS: VI

SUBJECT: MATHEMATICS

Instructions:

- a) Do your work neatly
- b) Learn tables till 25
- c) Learn counting till 100 in Hindi.
- d) Complete your notebook.
- e) Make a PROJECT / MODEL on "MATHEMATICS AROUNDS US " .

SOLVE THESE QUESTION IN HOMEWORK NOTEBOOK

Q1. Identify the property used in each of the following cases:

- | | |
|---------------------------------------|---|
| (a) $25 + 13 = 13 + 25$ | (d) $25 \times (33 \times 12) = (25 \times 33) \times 12$ |
| (b) $40 \times 99 = 99 \times 40$ | (e) $13 \times (100 - 19) = (13 \times 100) - (13 \times 19)$ |
| (c) $25 + (10 + 20) = (25 + 10) + 20$ | |

Q2. Tell the place value to which each of the following numbers has been estimate:

- (a) 25162000 (b) 6282500 (c) 245620 (d) 5000000

Q3. Write the examples of the following properties:

- a) Associative in closure with multiplication b) Distributive Property

Q4. Solve the following:

- a) 105×56 b) $33 \times 25 \times 8$ c) 199×33 d) $56 (30 + 70)$

Q5. Identify the prime numbers from the given numbers: 39, 19, 12, 15, 71

Q6. Write the factors of the following numbers:

- (a) 17 (b) 95 (c) 15 (d) 56 (e) 60

Q7. State whether the following statements are true or false:

- a) Two composite numbers can be co-prime.
- b) All natural numbers are whole numbers.
- c) Commutative property is in closure with subtraction
- d) The prime factorization of a number is unique.
- e) A number has infinite factors and multiples.

Q8. Find the HCF and LCM of each of the following:

- (a) 18 , 15 (b) 36 , 20

Check your answers using the equation: Product of two numbers = HCF \times LCM

Q 9 Write the prime factors of each of the following using a factor tree

- (a) 60 (b) 156

Q10. In the number 8962.2351, write the digit in the:

- (a) Hundredths place (b) Tens place (c) Thousandths place

ग्रीष्मावकाश गृहकार्य

१. हम पंछी उन्मुक्त गगन के - कविता कण्ठस्थ कीजिए।
२. प्रतिदिन एक - एक हिंदी शब्द लिखकर, उसका अर्थ हिंदी और अंग्रेजी में लिखिए।
३. प्रतिदिन एक अनुच्छेद (पैराग्राफ) हिंदी पढ़िए।
४. मौसम एवं जलवायु के विषय पर एक परियोजना (प्रोजेक्ट) बनाइए।

Holiday home work

Collect the information regarding chola dynasty, their art and architecture.[10 pages in record book]

HOLIDAY HOMEWORK- CLASVII

IN A 40 PAGENOTEBOOK, DO THE FOLLOWING HOMEWORKS:

1. PREPARE A DICTIONARY (25 WORDS FROM THE PROSE LESSONS-WORDS,MEANINGS & ONE SENTENCE EACH USING THAT WORD)
2. BOOK REVIEW. (READ STORY BOOKS AND WRITE A BOOK REVIEW ON ANY 1 OR 2 STORIES YOU LIKED.)
3. LEARN TO SPEAK - PREPARE A SPEECH BASED ON THE FOLLOWING TOPICS (ANY ONE)
 - IMPORTANCE OF READING
 - PATRIOTISM
 - HARD WORK
 - HEALTH & HYGIENE
5. READ ENGLISH NEWSPAPER DAILY AND PASTE 2 OR 3 ARTICLES ON THE NOTEBOOK AND SELECT PARTS OF SPEECH FROM THE ARTICLES AND WRITE IN A TABULAR COLUMN.

**KENDRIYA VIDYALAYA MALLESWARAM SHIFT II
SUMMER VACATION HOLIDAY'S HOMEWORK 2023-24**

CLASS: VII

SUBJECT: MATHEMATICS

- Instructions:**
- a) Do your work neatly
 - b) Learn tables till 25
 - c) Learn counting till 100 in Hindi.
 - d) Complete your notebook.
 - e) Make a project/ model on "Mathematics around us".
 - f) Prepare for test after vacation (1st, 2nd and 3rd chapter).

SOLVE QUESTIONS IN SEPARATE NOTEBOOK

Q1- Conduct a survey of 25 families of your locality and collect data that

- ✓ How many families have four wheeler?
- ✓ How many families have two wheeler?
- ✓ How many families have both four wheeler and two wheeler?
- ✓ How many families have Bicycle?

Calculate the fraction of data collected to that of total number of families in all the four parts. Also represent those fractions on different circles and paste them.

2. Mathematical Greetings What to do: - Make a colorful greeting card of size 15cm × 12cm on the following topic according to your roll number.

1. Roll No. 1-20 Properties of Integers

2. Different types of fractions Roll No.21-46

3. Let's Explore The Real World. What to do :- Help your mother to purchase grocery from nearby Grocery Shop. Purchase few items from there and paste the bill received. Verify the bill amount by doing the manual calculations.

ग्रीष्मावकाश गृहकार्य

१. जल है तो कल है - विषय पर एक परियोजना (प्रोजेक्ट) बनाइए।
२. लाख की वस्तुओं का निर्माण भारत के किन - किन राज्यों में होता है, लाख से चूड़ियों के अतिरिक्त क्या - क्या चीज़ें बनाते हैं। उनके बारे में लिखिए।
३. प्रतिदिन हिंदी समाचार पात्र को पढ़िए।
प्रतिदिन एक - एक हिंदी शब्द लिखकर, उसका अर्थ हिंदी और अंग्रेजी में लिखिए।
४. दीवानों की हस्ती कविता को याद कीजिए।

- 1)सुभाषितानि कण्ठस्थीकरणीयानि।
- 2)प्रतिदिनम् अरधपुटं यावत् संस्कृतपाठलेखनम्।
- 3)त्रिषुलिङ्गेषु 'किम्' शब्दरूपलेखनम्।

KENDRIYA VIDYALAYA MALLESWARAM SHIFT II

SUMMER VACATION HOLIDAY'S HOMEWORK 2023-24

CLASS: VIII

SUBJECT: MATHEMATICS

I. Answer the following questions

1. Which pair of following numbers are respectively the additive & multiplicative identities of rational numbers?

a) 2 & 0 b) 1 & -1 c) -1 & 0 d) 0 & 1

2. Which of the following numbers has no multiplicative inverse?

a) zero b) 1 c) -1 d) None of the these

3. Which of the following properties indicates the given operation:

$$[(-1/5) + (-3/5)] + (1/7) = (-1/5) + [(-3/5) + (1/7)]$$

a) commutative b) associative c) distributive d) none of these

4. What is the reciprocal of $\frac{-11}{7}$?

5. The solution of the equation $z + 4 = -8$ is

a) 4 b) -4 c) 12 d) -12

6. Solve: $8x + 4 = 3(x - 1) + 7$.

7. Represent $\frac{-2}{4}, \frac{11}{44}, \frac{5}{4}$ on a number line

8. Find three rational numbers between $\frac{11}{44}$ and $\frac{11}{22}$.

9. Using appropriate properties, find $\frac{22}{55} \times \frac{-3}{7} - \frac{-3}{7} - \frac{1}{14} \times \frac{1}{14} \square \frac{3}{7} \times \frac{33}{57} \times \frac{3}{5}$

10. Find the three rational numbers between $\frac{22}{33}$ and $\frac{44}{55}$

II. Collect information on Hardy-Ramanujan number.

III. Write any three rules of Vedic maths with 2 examples each.

Note: All the students have to write solution of these questions in Mathematics

HOME WORK NOTE

KENDRIYA VIDYALAY MALLESWARAM

SUMMER BREAK



- ❖ Paste news articles (3-5) from an English newspaper and identify the various Parts of Speech given in it. Arrange the parts of Speech in a tabular column.
- ❖ Make a collage of natural disasters that has occurred in the last 25 years and note down the cause, effect and preventive measures of the same.
- ❖ Book Review of the book that you have liked the most which you have read in the Summer Holiday Days.

All the above mentioned projects to be done in a 40p notebook



KENDRIYA VIDYALAYA MALLESWARAM, BENGALURU

SUMMER HOLIDAY HOMEWORK

CLASS IX (2023-2024)

SUBJECT: ENGLISH

50 PAGE RULED NOTEBOOK

- 1. PREPARE AN ARTICLE ON THE TOPIC YOGA IN EVERYDAY LIFE(ATLEAST 500 WORDS)**
- 2. PREPARE A POSTER ON THE TOPIC SAVE THE EARTH (FROM THE TOPIC ENVIRONMENT – REFER MAIN COURSE BOOK)**
- 3. ART INTEGRATED PROJECT - TRAVEL BROCHURE - LADAKH (IN ANY CREATIVE FORM)**
- 4. PORTFOLIO**

**KENDRIYA VIDYALAYA MALLESWARAM, SHIFT – 2
BENGALURU
SUMMER VACATION HOLIDAY'S HOMEWORK(2023-24)**

CLASS IX

SUBJECT: SCIENCE

Theme 1. Know your ecosystem

Theme 2. Fostering health, nutrition and well being

Theme 3. Social and Cultural practices for ecosystem and health

Theme 4. Ecosystem approach for self reliance

Theme 5. Technological Innovation for ecosystem and health

Select **any one theme** and make

1. Project Report(Containing Cover page showing project title, School's name, students name, class and section and academic session (year), Abstract, Content, Introduction, Objectives, Methodology, Observation, Result and Conclusions, Future Scope.

- Project should be written on one side A4 size sheet.
- Minimum 10 pages project should be prepared.
- Project should be hand written.

2. Log Book

Project should be written on one side A4 size sheet.

Minimum 10 pages project should be prepared. Project should be hand written.

**KENDRIYA VIDYALAYA MALLESWARAM SHIFT II
SUMMER VACATION HOLIDAY'S HOMEWORK 2023-24**

CLASS: IX

SUBJECT: MATHEMATICS

Mathematics Art Integrated Project

Submit the project in a stick file on A4 size sheets.

Make it colourful and artistic.

It should have the following:

- Artistic cover page
- Certificate
- Contents
- Introduction to the topic
- Body of the project
- Result
- Conclusion
- Reference

Topic: Collect data on the following topics with respect to the population of the state of Ladakh our partner state and present the data collected graphically using pie charts.

- ❖ Languages spoken by the people of Ladakh
- ❖ Religion followed by the people of Ladakh

It is mandatory for all to submit the project.

CERTIFICATE
KENDRIYA VIDYALAYA MALLESWARAM

Certified that this is the bonafide record of the work done byroll no. of class section in Mathematics for the year 2023-24 and submitted for the purpose of internal assessment(Art integrated Project) . I certify that this project is done by me independently.

Date:

Signature of the student

Examiner's signature

1. Trace the history of France under the emperorship of Napoleon Bonaparte
2. Find out the revolutionary figures of French revolution write a short biography

1. discuss any three significance of land resources
2. what is land use? State the factors effecting land use.
3. write any three reasons for land degradation.
4. what is soil erosion. Discuss any four causes of soil erosion.

KENDRIYA VIDYALAYA MALLESWARAM, Shift - 1

Summer Vacation Homework - 2023

Class - IX-C, X-A & X-B

Subject - Sanskrit

Write these शब्दरूपाणि and धातुरूपाणि in A4 sheets. Learn them to recite without seeing

(Oral Test will be conducted once the school is re-opened)

- 1) अकारान्त-पुल्लिङ्गशब्दः - “राम” ।
- 2) इकारान्त-पुल्लिङ्गशब्दः - “हरि” ।
- 3) उकारान्त-पुल्लिङ्गशब्दः - “गुरु” ।
- 4) तकारान्त-शब्दः - “भवत्” - पुल्लिङ्गे , स्त्रीलिङ्गे च ।
- 5) आकारान्त-स्त्रीलिङ्गशब्दः - “रमा” ।
- 6) ईकारान्त-स्त्रीलिङ्गशब्दः - “नदी” ।
- 7) सर्वनामशब्दः - “अस्मद्” , “युष्मद्” ।
- 8) सर्वनामशब्दः (त्रिषु लिङ्गेषु) - “तद्” , “किम्” ।
- 9) धातुरूपाणि (लट्-लृट्-लङ्-लोट्-विधिलिङ्-लकारेषु) - पठ्-धातुः , भू-धातुः , गम्-धातुः , सेव्-धातुः , लभ्-धातुः ।

Re-write the letters by filling the blanks (select the correct answers from the given box)

1) भवती श्यामला। भवती पितरं प्रति एक पत्र लिखति । मञ्जूषायाः उचितानि पदानि चित्वा पत्रं पूरयतु। (आप श्यामला हैं। आप पिता को एक पत्र लिख रही हैं। मञ्जूषा से उचित शब्द चुनकर पत्र को पूर्ण करो।)

(i) _____ ।

पितृ-श्रीचरणसन्निधौ ,

सादरं (ii) _____ । भवतः पत्रं प्राप्तम्। पत्रं पठित्वा बहु आनन्दः (iii)_____ ।

अहम् अत्र (iv) _____। भवतः मातुः च (v) _____ अधिकं चिन्तयामि । अत्र मम प्रशिक्षणं

सम्यक् प्रचलति । भवता दत्तं (vi) _____ आगमनसमये मार्गं एव मया पठितम्। प्रशिक्षणस्य (vii)

_____ अहं शैक्षिकप्रवासाय गमिष्यामि। ततः (viii) _____ गृहम् आगमिष्यामि। एतं विषयं

पूज्यमातरम् अपि (ix) _____ मातृचरणयोः अपि मम वन्दनानि अनुजाय च शुभाशिषः ।

(x) _____ प्रियपुत्री,

श्यामला ।

मञ्जूषा - अभवत् , श्रीनगरतः , स्वास्थ्यविषये , आगत्य , वन्दनानि , पश्चात् , पुस्तकं , कुशलिनी , भवदीया , सूचयतु ।

2) भवान् सोमेशः। भवतः ज्येष्ठा भगिनी रमा जयपुरे छात्रावासे निवसति । रक्षाबन्धनपर्वणि भवतां विद्यालये संस्कृतदिवसस्य भव्यम् आयोजनम् अस्ति। तदर्थं तां निमन्त्रयितुं लिखिते पत्रे मञ्जूषापदसाहाय्येन रिक्तस्थानपूर्तिं कृत्वा पत्र पुनः लिखतु। (आप सोमेश हैं। आपकी बड़ी बहन रमा जयपुर में छात्रावास में रहती है। रक्षाबंधन के पर्व पर आपके विद्यालय में संस्कृत दिवस का भव्य आयोजन है। उसके लिए रमा को निमंत्रित करने के लिए लिखे गए पत्र में मञ्जूषा के शब्दों की सहायता से रिक्त स्थानों की पूर्ति करके पत्र को फिर से लिखिए।)

115 , राजाजीनगरम् ,

बेङ्गलूरुः

पूज्ये (i) _____

सस्नेहं (ii) _____ अत्र कुशलं (iii) _____ । मन्ये भवती सर्वथा स्वस्था (iv) _____ च भविष्यति। भवती (v) _____ एव यत् श्रावणमासस्य पूर्णिमायां रक्षाबन्धनपर्वणि अस्माकं विद्यालये (vi) _____ संस्कृतदिवसस्य आयोजनं भवति । अस्मिन् वर्षे (vii) _____ नाटकस्य मञ्जनं भविष्यति । अहं तत्र (viii) _____ 'अभिनयं करिष्यामि। भवत्याः आगमनेन 'रक्षाबन्धन' इति पर्वणः अपि (ix) _____ भविष्यति, विद्यालये भवत्याः उपस्थित्या मम (x) _____ अपि भविष्यति।

भवत्याः अनुजः,

सोमेशः

मञ्जूषा

चारुदत्तमिति , चारुदत्तस्य , भगिनि , तत्रास्तु , अभिवादनम् , प्रतिवर्षम् , जानाति , प्रसन्नचित्ता , उत्साहवर्द्धनम् , आयोजनम् ।

चित्रवर्णनम् - Picture Description

Write 5 sentences for each picture. (You can draw these pictures or can take a printout and paste them.)



ग्रीष्मावकाश गृहकार्य(परियोजना कार्य)2023-24

कक्षा-10

विषय-हिंदी

ज्ञानपीठ पुरास्कार प्राप्त साहित्यकारों पर एक परियोजना कार्य तैयार कीजिये।

नोट- A4 शीट का प्रयोग कीजिये।

अपना सम्पूर्ण विवरण प्रथम पृष्ठ पर लिखिए।

चित्रों के नीचे विषय व्याख्या अनिवार्य है।

◆□□□- □□□□□□

विषयवस्तु-2

प्रस्तुतीकरण-2

भाषा- सौंदर्य-1

KENDRIYA VIDYALAYA MALLESWARAM SHIFT 1& 2 , BENGALURU

SUMMER HOLIDAY HOMEWORK

CLASS X (2023-2024)

SUBJECT: ENGLISH

- 1. PREPARE AN ARTICLE ON THE TOPIC YOGA IN EVERYDAY LIFE**
- 2. GROUP ACTIVITY- PREPARE A PRESENTATION ABOUT THE CONTRIBUTION OF FIVE FAMOUS FREEDOM FIGHTERS AROUND THE WORLD(CHART PAPER).PRESENT A DETAIL DESCRIPTION OF ANY ONE FREEDOM FIGHTER ON A A4 SIZE PAPER.**
- 3. WORDS AND EXPRESSIONS , COMPLETE THE EXERCISE GIVEN IN THE CHAPTER 1 – A LETTER TO GOD**
- 4. ART INTEGRATED PROJECT - TRAVEL BROCHURE - LADAKH (CHART PAPER)**
- 5. PORTFOLIO**

KENDRIYA VIDYALAYA MALLESWARAM, BENGALURU

HOLIDAY HOMEWORK

PROJECT FOR PORTFOLIO

CLASS X

SUBJECT: SCIENCE

Do project on any one of the following topics:

- 1. Ganga action plan (GAP)**
- 2. Conservation and judicious use of natural resource**
- 3. Coal and Petroleum conservation.**
- 4. Big dams: advantages and limitations; alternatives, if any**
- 5. Sustainability of natural resources.**
- 6. Wildlife conservation.**
- 7. Any other topic from Management of natural resources.**

Note:

- . Project should be written on one side A4 size sheet.**
- . Minimum 10 pages project should be prepared.**
- . Project should be hand written.**
- . correlate your topic with the state of Uttarakhand.**
- . You can either paste or draw the pictures (if needed).**

Project outline

- 1 .Topic of the project**
- 2. Certificate**
- 3. Aim of the project**
- 4. Introduction**
- 5. Procedure/ content**
- 6 .Result**
- 7. Conclusion.**
- 8. Bibliography.**

CERTIFICATE

KENDRIYA VIDYALAYA MALLESWARAM

Certified that this is the bonafide record of the work done byroll no. of class section in Science for the year 2023 -24 and submitted for the purpose of internal assessment(portfolio) . I certify that this project is done by me independently.

Date:

Signature of the student:

Examiner's signature

**KENDRIYA VIDYALAYA MALLESWARAM SHIFT II
SUMMER VACATION HOLIDAY'S HOMEWORK 2023-24**

CLASS: X

SUBJECT: MATHEMATICS

Mathematics Art Integrated Project

Submit the project in a stick file on A4 size sheets.

Make it colourful and artistic.

It should have the following:

- Artistic cover page
- Certificate
- Contents
- Introduction to the topic
- Body of the project
- Result
- Conclusion
- Reference

Topic: Collect data on any one of the following topics with respect to the 13 districts of the state of Ladakh our partner state and present the data collected graphically using pictograph, pie chart and bargraph.

Do a comparison of any one of the following across the districts.

- ❖ Number of temples
- ❖ Forest cover in per km²
- ❖ Population in the districts

It is mandatory for all to submit the project.

CERTIFICATE
KENDRIYA VIDYALAYA MALLESWARAM

Certified that this is the bonafide record of the work done byroll no. of class section in Mathematics for the year 2023-24 and submitted for the purpose of internal assessment(Art integrated Project) . I certify that this project is done by me independently.

Date:

Signature of the student

Examiner's signature

- 1.contribuon of different sectors in Indian economy
- 2.Draw the soil profile and soil conservation methods
- 3.vertical power sharing among central and state government

map works

- 1.observe literacy rates of Indian states and union territories
- 2.observe the distribution of major wildlife reserves in india
- 3.locate and label the following cities on map

Thiruvananthapuram

Chennai

Jodhpur

Bengaluru

Mumbai

Economics : (1) Explain the evolution of money (2) List the activities in 3 sectors of the economy

Geography: (1) Short note on Project Tiger

Civics: (1) Explain vertical power sharing in India

History: (1) Compare nationalism in Europe with India

Map work: (1) Locate the forest areas on India's map

(2) Locate the tiger reserves on the map of India

(3) Locate the type of soils on India's map

(4) Locate major ports and airports on India's map

XII – CBSE

CHEMISTRY – QUESTION BANK

Previous Year Selected Questions:

Unit – 2: Solutions

1 mark Questions:

- 1) Give reason for the following.
Aquatic animals are more comfortable in water than in warm water. **2018 C**
- 2) Define the term mole fraction. **All India 2012, 2010 C, Delhi 2012**
- 3) Explain the Henry's law about dissolution of a gas in a liquid. **All India 2012, 2011; Delhi 2011; Foreign 2011**
- 4) State the main advantage of molality over molarity as the unit of concentration. **Delhi 2010**
- 5) Define an ideal solution and write one of its characteristics. (or) Define ideal solution. **All India 2014**
All India 2013,2012; Delhi 2010 C
- 6) Some liquids on mixing form azeotropes. What are azeotropes? (or) Define the term azeotrope. **Delhi 2014**
All India 2013
- 7) State Raoult's law. (or) Define Raoult's law in its general form in reference to solutions. (or) State Raoult's law for a solution of volatile liquids. **Foreign 2012**
Delhi 2011; All India 2011
Delhi 2010C
- 8) What are isotonic solutions? **All India 2014,12**
- 9) Define the term Osmotic pressure. **All India 2013; Delhi 2010C**
- 10) What is meant by reverse osmosis? **All India 2013,2011**
- 11) Explain boiling point elevation constant for a solvent or ebullioscopic constant. **All India 2012; Foreign 2012**

2 MARK QUESTIONS:

- 1) State Henry's law. Calculate the solubility of CO_2 in water at 298K under 760mm Hg. (K_H for CO_2 in water at 298K is 1.25×10^6 mm Hg). **All India 2020**
- 2) Give reasons for the following: **All India 2019**
 - (i) Aquatic species are more comfortable in cold water than warm water.
 - (ii) At higher altitudes people suffer from anoxia resulting in inability to think.
- 3) Define the following terms. **All India 2015 C**
 - (i) Mole fraction (X)
 - (ii) Molality of a solution (m)
- 4) Calculate the molarity of 9.8% (w/w) solution of H_2SO_4 if the density of the solution is 1.02 g mL^{-1} . [Molar mass of $\text{H}_2\text{SO}_4 = 98 \text{ gmol}^{-1}$] **Foreign 2014**

- 5) Differentiate between molarity and molality of a solution. How can we change molality value of a solution into molarity value? **Delhi 2014 C; Foreign 2011**
- 6) A solution of Glucose ($C_6H_{12}O_6$) in water is labeled as 10% by weight. What would be the molality of the solution? (Molar mass of glucose = 180g mol^{-1}). **All India 2013**
- 7) If the density of water of a lake is 1.25g mL^{-1} and 1 Kg of lake water contains 92g of Na^+ ions, calculate the molarity of Na^+ ions in this lake water (Atomic mass of Na = 23g mol^{-1}). **Foreign 2012**
- 8) Differentiate between molarity and molality of a solution. How does a change in temperature influence their values? **Delhi 2011, Foreign 2011**
- 9) Explain why aquatic species are more comfortable in cold water rather than in warm water. **Delhi 2012C**
- 10) State Henry's law and mention its two important applications. **All India 2010 C**
- 11) State Raoult's law for a solution containing volatile components. What is the similarity between the Raoult's law and Henry's law. **Delhi 2020, Delhi 2014**
- 12) What type of azeotropic mixture will be formed by a solution of acetone and chloroform? Justify on the basis of strength of intermolecular interactions that develop in the solution. **All India 2019**
- 13) State Raoult's law for a solution containing volatile components. Write two characteristics of the solution which obeys Raoult's law at all concentrations. **Delhi 2019**
- 14) Write two differences between an ideal solution and a non-ideal solution. **Delhi 2019**
- 15) Why a mixture of carbon disulphide and acetone shows positive deviation from Raoult's law? What type of azeotrope is formed by this mixture? **2018 C**
- 16) Define the following:
 (i) Ideal solution (ii) Molarity (M) **Delhi 2017**
- 17) (i) Gas (A) is more soluble in water than gas (B) at the same temperature. Which one of the two gases will have the higher value of KH (Henry's constant) and why?
 (ii) In non-ideal solution, what type of deviation shows the formation of maximum boiling azeotropes? **All India 2016**
- 18) What is meant by negative deviation from Raoult's law? Give an example.
 What is the sign of $\Delta_{\text{mix}}H$ for negative deviation? (or) **Foreign 2015**
 What is meant by positive deviation from Raoult's law? Give an example.
 What is the sign of $\Delta_{\text{mix}}H$ for positive deviation? (or) **Delhi 2015**
 Non-ideal solutions exhibit either positive or negative deviations from Raoult's law.
 What are these deviations and why are they caused? Explain with one example for each type. **All India 2011,2010; Delhi 2010; Foreign 2010**

- 19) Define azeotropes. What type of azeotrope is formed by negative deviation from Raoult's law? Give an example. (or) Define azeotropes. What type of azeotrope is formed by positive deviation from Raoult's law? Give an example. **Foreign 2015**
Delhi 2015
- 20) State Raoult's law for a solution containing volatile components. How does Raoult's law become a special case of Henry's law? **All India 2013**
- 21) Explain why a solution of chloroform and acetone shows negative deviation from Raoult's law. **Delhi 2012 C**
- 22) What happens when,
(i) a pressure greater than osmotic pressure is applied on the solution side separated from solvent by a semipermeable membrane
(ii) acetone is added to pure ethanol? **All India 2020**
- 23) Calculate the freezing point of a solution containing 60g of glucose (Molar mass = 180g mol⁻¹) in 250g of water. (K_f of water = 1.86K kg mol⁻¹) **Delhi 2018**
- 24) Give reasons for the following:
(i) Measurement of osmotic pressure method is preferred for the determination of molar masses of macromolecules such as proteins and polymers.
(ii) Elevation of boiling point of 1M KCl solution is nearly double than of 1M sugar solution. **Delhi 2018**
- 25) Define the following terms:
(i) Colligative properties (ii) Molality (m) **Delhi 2017**
- 26) Define the following terms:
(i) Abnormal molar mass (ii) Van't Hoff factor **Delhi 2017**
- 27) Define osmotic pressure of a solution. How is the osmotic pressure related to the concentration of a solute in a solution? **Delhi 2015 C**
- 28) (i) On mixing liquid X and liquid Y, volume of the resulting solution decreases. What type of deviation from Raoult's law is shown by the resulting solution? What change in temperature would you observe after mixing liquids X and Y?
(ii) What happens when we place the blood cell in water (hypertonic solution)? Give reason. **All India 2015**
- 29) Why does a solution containing non-volatile solute have higher boiling point than the pure solvent? Why is elevation of boiling point a colligative property? **All India 2015**
- 30) Calculate the mass of compound (molar mass = 256g mol⁻¹) to be dissolved in 75g of benzene to lower its freezing point by 0.48K (K_f = 5.12K kg mol⁻¹) **All India 2014**
- 31) How is the vapour pressure of a solvent affected when a non-volatile solute is dissolved in it? **Delhi 2014 C**
- 32) An aqueous solution of sodium chloride freezes below 273K. Explain the lowering in freezing point of water with the help of a suitable diagram. **Delhi 2013 C**
- 33) 18g glucose, C₆H₁₂O₆ (molar mass = 180g mol⁻¹) is dissolved in 1Kg of water in a sauce pan. At what temperature, will this solution boil? (K_b for water = 0.52K kg mol⁻¹, boiling point of pure water = 373.15K) **Delhi 2013**

- 34) A 1.00 molal aqueous solution of trichloroacetic acid (CCl_3COOH) is heated to its boiling point. The solution has the boiling point 100.18°C . Determine the Van't Hoff factor for trichloroacetic acid. (K_b for water = $0.512\text{K kg mol}^{-1}$) **Delhi 2012**
- 35) Define the following terms:
(i) Isotonic solutions. (ii) Van't Hoff factor **Delhi 2012, All India 2012**
- 36) Define the terms: Osmosis and osmotic pressure. Is the osmosis pressure of a solution a colligative property? **Delhi 2011**
- 37) What is Van't Hoff factor? What possible values can it have if the solute molecules undergo dissociation? **Delhi 2011C**
- 38) The molecular masses of polymers are determined by osmotic pressure method and not by measuring other colligative properties. Give two reasons. **All India 2011C**
- 39) Define the terms: Osmosis and osmotic pressure. What is the advantage of using osmotic pressure as compared to other colligative properties for determination of molar masses of solutes in solutions? **All India 2010**
- 40) Find the boiling point of a solution containing 0.520g of glucose ($\text{C}_6\text{H}_{12}\text{O}_6$) dissolved in 80.2g of water. [Given, K_b for water = 0.52K m^{-1}] **All India 2010C**
- 41) Find the freezing point of a solution containing 0.520g of glucose ($\text{C}_6\text{H}_{12}\text{O}_6$) dissolved in 80.2g of water. [Given, K_f for water = 1.86K m^{-1}] **All India 2010C**
- 42) Outer hard shells of two eggs are removed. One of the egg is placed in pure water and the other is placed in saturated solution of sodium-chloride. What will be observed and why? **All India 2010**

3 MARKS QUESTIONS:

- 1) A solution of glucose (molar mass = 180g mol^{-1}) in water is labelled as 10% (by mass). What would be the molality and molarity of the solution? (Density of the solution = 1.2g mol^{-1}) **Delhi 2014**
- 2) The partial pressure of ethane over a saturated solution containing $6.56 \times 10^{-2}\text{g}$ of ethane is 1bar. If the solution contains $5.0 \times 10^{-2}\text{g}$ of ethane, then what will be the partial pressure of the gas? **Delhi 2013C; All India 2012C**
- 3) If N_2 gas is bubbled through water at 293K, how many millimoles of N_2 gas would dissolve in 1L of water? Assume that N_2 exerts a partial pressure of 0.987bar. Given that Henry's law constant for N_2 at 293K is 76.48K bar. **All India 2012C**
- 4) The vapour pressure of pure liquids A and B are 450mm and 700mm of Hg respectively at 350K. Find out the composition of the liquid mixture if total vapour pressure is 600mm of Hg. Also, find the composition in the vapour phase. **All India 2013C**
- 5) A 0.01m aqueous solution of AlCl_3 freezes at -0.068°C . Calculate the percentage of dissociation. [Given: K_f for water = 1.86K Kg mol^{-1}] **Delhi 2020**
- 6) The freezing point of a solution containing 5g of benzoic acid ($M = 122\text{g mol}^{-1}$) in 35g of benzene is depressed by 2.94K. What is the percentage of association? (K_f for benzene = 4.9K Kg mol^{-1}) **All India 2020**
- 7) At 300K, 30g of glucose present in a litre of its solution has an osmotic pressure of 4.98bar. If the osmotic pressure of the glucose solution is 1.52bar at the same temperature, what would be its concentration? **All India 2019**

- 8) A 4% solution (w/w) of sucrose ($M=342\text{g mol}^{-1}$) in water has a freezing point of 271.15K . Calculate the freezing point of 5% glucose ($M=180\text{g mol}^{-1}$) in water. (Given: Freezing point of pure water= 273.15K) **Delhi 2019**
- 9) Calculate the freezing point of an aqueous solution containing 10.5g of magnesium bromide in 200g of water, assuming complete dissociation of magnesium bromide. (Molar mass of magnesium bromide= 184g mol^{-1} , K_f for water= 1.86K kg mol^{-1}) **2018C**
- 10) A 10% solution (by mass) of sucrose in water has freezing point of 269.15K . Calculate the freezing point of 10% glucose in water, if freezing point of pure water is 273.15K . [Given: Molar mass of sucrose= 342g mol^{-1} and molar mass of glucose= 180g mol^{-1}] **Delhi 2017**
- 11) Calculate the boiling point of solution when 4g of MgSO_4 ($M=120\text{g mol}^{-1}$) was dissolved in 100g of water assuming MgSO_4 undergoes complete ionization. (K_b for water = 0.52K kg mol^{-1}) **All India 2016**
- 12) Calculate the mass of NaCl (molar mass= 58.5g mol^{-1}) to be dissolved in 37.2g of water to lower the freezing point by 2°C , assuming that NaCl undergoes complete dissociation. (K_f of water = 1.86K kg mol^{-1}) **(or)** **Foreign 2015**
What mass of NaCl must be dissolved in 65.0g of water to lower the freezing point of water by 7.50°C ? The freezing point depression constant (K_f) for water is 1.86°C/m . Assume Van't hoff factor for NaCl is 1.87. (Molar mass of NaCl= 58.5g mol^{-1}) **All India 2011,2010;Foreign 2010**
- 13) 45g of ethylene glycol ($\text{C}_2\text{H}_6\text{O}_2$) is mixed with 600g of water. Calculate (i) the freezing point depression and (ii) the freezing point of a solution. (K_f of water = 1.86K kg mol^{-1}) **Delhi 2015C**
- 14) A 5% solution (by mass) of cane sugar ($M.W$ 342g mol^{-1}) is isotonic with 0.877% solution of substance X. Find the molecular weight of X. **All India 2015C**
- 15) 3.9g of benzoic acid is dissolved in 49g of benzene shows a depression in freezing point of 1.62K . Calculate the Van't hoff factor and predict the nature of the solute (associated or dissociated). (Given: Molar mass of benzoic acid = 122g mol^{-1} , K_f of benzene = 4.9K kg mol^{-1}) **Delhi 2015**
- 16) A solution is prepared by dissolving 10g of non-volatile solute in 200g of water. It has a vapour pressure of 31.84mm of Hg at 308K . Calculate the molar mass of the solute. (Vapour pressure of pure water at 308K = 32mm Hg) **All India 2015**
- 17) Calculate the boiling point elevation for a solution prepared by adding 10g of CaCl_2 to 200g of water. (K_b for water = $0.512\text{K kg mol}^{-1}$, molar mass of CaCl_2 = 111g mol^{-1}) **Foreign 2014**
- 18) Some ethylene glycol, $\text{HOCH}_2\text{CH}_2\text{OH}$, is added to your car's cooling system along with 5Kg of water. If the freezing point of water-glycol solution is -15.0°C , what is the boiling point of the solution? (K_b for water = 0.52K kg mol^{-1} , K_f of water = 1.86K kg mol^{-1}) **Delhi 2014C**
- 19) Determine the osmotic pressure of a solution prepared by dissolving $2.5 \times 10^{-2}\text{g}$ of K_2SO_4 in 2L of water at 25°C , assuming that it is completely dissociated. ($R=0.0821\text{ L atm K}^{-1}\text{ mol}^{-1}$, molar mass of K_2SO_4 = 174g mol^{-1}). **Delhi 2013**
- 20) 1.00g of non-electrolyte solute when dissolved in 50g of benzene lowered the freezing point of benzene by 0.40K . Find the molar mass of the solute. (K_f = 5.12K kg mol^{-1}) **All India 2012**
- 21) A 5% of solution (by mass) if cane sugar in water has freezing point of 271K . Calculate the freezing point of 5% solution (by mass) of glucose in water if the freezing point of pure water is 273.15K . [Molecular mass of glucose ($\text{C}_6\text{H}_{12}\text{O}_6$) = 180amu or g mol^{-1} and cane sugar ($\text{C}_{12}\text{H}_{22}\text{O}_{11}$) = 342amu or g mol^{-1}] **All India 2013C**

- 22) At 25°C, the saturated vapour pressure of water is 3.165 kPa (23.75 mm Hg). Find the saturated vapour pressure of a 5% aqueous solution of urea (carbamide) at the same temperature. (Molar mass of urea = 60.05 g mol⁻¹) **Foreign 2012**
- 23) 15.0g of unknown molecular material is dissolved in 450g of water. The resulting solution freezes at -0.34°C. What is the molar mass of the material? (K_f of water = 1.86 K kg mol⁻¹) **All India 2012, 2010**
- 24) A solution of glycerol (C₃H₈O₃) in water was prepared by dissolving some glycerol in 500g of water. This solution has a boiling point of 100.42°C, what mass of glycerol was dissolved to make this solution? (K_b for water = 0.512 K kg mol⁻¹) **All India 2012; Delhi 2012, 2010**
- 25) Calculate the freezing point of an aqueous solution containing 10.50g of MgBr₂ in 200g of water (molar mass of MgBr₂ = 184 g mol⁻¹, K_f of water = 1.86 K kg mol⁻¹) **Delhi 2011**
- 26) Calculate the boiling point of a solution prepared by adding 15.00g of NaCl to 250.0g of water (Molar mass of NaCl = 58.44 g mol⁻¹; K_b for water = 0.512 K kg mol⁻¹) **Delhi 2011**
- 27) What would be the molar mass of a compound if 6.21g of it is dissolved in 24.0g of chloroform form a solution that has a boiling point of 68.04°C. The boiling point of pure chloroform is 61.7°C and the boiling point elevation constant, K_b for chloroform is 3.63°C/m. **Delhi 2011**
- 28) A solution prepared by dissolving 8.95mg of a gene fragment in 35.0mL of water has an osmotic pressure of 0.335 torr at 25°C. Assuming the gene fragment is non-electrolyte, determine the molar mass. **All India 2011; Delhi 2011**
- 29) A 0.561m solution of unknown electrolyte depresses the freezing point of water by 2.93°C. What is van't Hoff factor for this electrolyte? The freezing point depression constant (K_f) for water is 1.86°C Kg mol⁻¹. **Foreign 2011**
- 30) Phenol associates in benzene to a certain extent to form a dimer. A solution containing 20g of phenol in 1.0Kg of benzene has its freezing point lowered by 0.69K. Calculate the fraction of phenol that has dimerised. (K_f = 5.12 K kg mol⁻¹) **Delhi 2011C**
- 31) An aqueous solution containing 12.48g of barium chloride in 1.0Kg of water boils at 373.0832K. Calculate the degree of dissociation of barium chloride. (Molar mass of BaCl₂ = 208.34 g mol⁻¹; K_b for water = 0.512 K kg mol⁻¹) **Delhi 2011C**
- 32) At 300K, 36g of glucose, C₆H₁₂O₆ present per litre in its solution has an osmotic pressure of 4.98bar. If the osmotic pressure of another glucose solution is 1.52bar at the same temperature, calculate the concentration of the other solution. **All India 2011C**
- 33) Calculate the boiling point of one molar aqueous solution. Density of KBr solution is 1.06g mL⁻¹. (Atomic mass of K=39, Br=80; K_b for water = 0.52 K kg mol⁻¹) **All India 2011C**
- 34) A solution prepared by dissolving 1.25g of oil of wintergreen (methyl salicylate) in 99.0g of benzene has a boiling point of 80.31°C. Determine the molar mass of this compound. (K_b for pure benzene = 80.10°C and K_b for benzene = 2.53°C Kg mol⁻¹) **Delhi 2010; Foreign 2010**
- 35) What mass of ethylene glycol (molar mass 62.0g mol⁻¹) must be added to 5.50Kg of water to lower the freezing point of water from 0°C to -10.0°C? (K_f of water = 1.86 K kg mol⁻¹) **All India 2010**
- 36) 0.1mole of acetic acid was dissolved in 1Kg of benzene. Depression in freezing point of benzene was determined to be 0.256K. What conclusion can you draw about the state of the solute in the solution? (K_f = 5.12 K kg mol⁻¹) **Delhi 2010C**

37) Calculate the mass of ascorbic acid ($C_6H_8O_6$) to be dissolved in 75g of acetic acid to lower its melting point by $1.5^\circ C$ (K_f for acetic acid = $3.9 K kg mol^{-1}$) **All India 2010C**

5 MARK QUESTIONS:

1) (i) A 10% solution (by mass) of sucrose in water has a freezing point of 269.15K. Calculate the freezing point of 10% glucose in water if the freezing point of pure water is 273.15K. (Molar mass of sucrose = $342 g mol^{-1}$ and molar mass of glucose = $180 g mol^{-1}$)

(ii) Define the following terms:

- (a) Molality (m)
- (b) Abnormal molar mass

All India 2017

2) (i) Calculate the freezing point of a solution when 1.9g of $MgCl_2$ ($M = 95 g mol^{-1}$) was dissolved in 50g of water, assuming $MgCl_2$ undergoes complete ionization. (K_f of water = $1.86 K kg mol^{-1}$)

(ii) (a) Out of 1M glucose and 2M glucose, which one has a higher boiling point and why?

(b) What happens when the external pressure applied becomes more than the osmotic pressure of the solution?

Delhi 2016

3) (i) When 2.56g of sulphur was dissolved in 100g of CS_2 , the freezing point gets lowered by 0.383K. Calculate the formula of sulphur (S_x). (K_f for $CS_2 = 3.83 K kg mol^{-1}$, Atomic mass of sulphur = $32 g mol^{-1}$)

(ii) Blood cells are isotonic with 0.9% sodium chloride solution. What happens if we place blood cells in a solution containing

- (a) 1.2% sodium chloride solution
- (b) 0.4% sodium chloride solution?

Delhi 2016

HOLIDAY HOMEWORK

PREVIOUS YEARS BOARD QUESTIONS-UNIT VI

1. Why do moss plants produce very large number of male gametes ? Provide one reason. What are these gametes called?
2. State what is apomixis. Comment on its significance. How can it be commercially used?
3. Your school has been selected by the Department of Education to organize and host an interschool seminar on "Reproductive Health – Problems and Practices". However, many parents are reluctant to permit their wards to attend it. Their argument is that the topic is "too embarrassing."
4. Put forth four arguments with appropriate reasons and explanation to justify the topic to be very essential and timely.
 - (a) Plan an experiment and prepare a flow chart of the steps that you would follow to ensure that the seeds are formed only from the desired sets of pollen grains. Name the type of experiment that you carried out.
 - (b) Write the importance of such experiments.
5. Describe the roles of pituitary and ovarian hormones during the menstrual cycle in a human female.
6. Name the type of asexual reproduction where the parent cell ceases to exist.
7. Differentiate between pericarp and perisperm.
8. Name the male accessory glands in humans and write their functions.
 - (a) Name a terminal method to prevent pregnancy in humans.
 - (b) Describe the procedure of the terminal method carried in human male and female.
9. a) Do all pollen grains remain viable for the same length of time ? Support your answer with two suitable examples.
(b) How are pollen grains stored in pollen banks ? State the purpose of storing pollen grains in these banks.
- 10 (a) Draw a labelled diagram of a human blastocyst.
(b) What is parturition and how is it induced at the end of pregnancy in a human female ?
- 11 (a) With labelled diagrams, depict stages in embryo development in a dicotyledenous plant.
(b) Endosperm development precedes embryo development. Why ?
- 12 Our government has intentionally imposed strict conditions for M.T.P. in our country. Justify giving a reason.
- 13 A mature embryo-sac in a flowering plant may possess 7-cells, but 8-nuclei. Explain with the help of a diagram only.
- 14 (a) List the three stages the annuals and biennial angiosperms have to pass through during their life cycle.
(b) List and describe any two vegetative propagules in flowering plants.

15 Draw a labelled diagrammatic sectional view of a human seminiferous tubule.

16 Read the following statement and answer the questions that follow :

“A guava fruit has 200 viable seeds.”

(a) What are viable seeds ?

(b) Write the total number of:

(i) Pollen grains

(ii) Gametes in producing 200 viable guava seeds.

(c) Prepare a flow-chart to depict the post-pollination events leading to viable-seed production in a flowering plant.

17 (a) Arrange the following hormones in sequence of their secretion in a pregnant woman.

(b) Mention their source and the function they perform: hCG ; LH ; FSH ; Relaxin

In a flowering plant a microspore mother cell produce four male gametophytes while a megaspore mother cell form only one female gametophyte. Explain.

18 Some flowers, selected for artificial hybridization, do not require emasculation but bagging is essential for them. Give a reason

19 Write any two ways by which apomictic seeds may be developed in angiosperms.

20 Draw a labelled diagram of a mature male gametophyte of an angiosperm.

21 Draw a diagram of L.S. of an embryo of grass and label any six parts.

22. Explain the events that occur in the uterus during menstrual cycle in the human females.

23. Explain the post pollination events up to double fertilisation, that occur in an angiosperm

24. A pollen grain in angiosperm at the time of dehiscence from an anther could be 2-celled or 3-celled. Explain. How are the cells placed within the pollen grain when shed at a 2-celled stage ?

25. (a) Explain the following phases in the menstrual cycle of a human female:

(i) Menstrual phase

(ii) Follicular phase

(iii) Luteal phase

(b) A proper understanding of menstrual cycle can help immensely in family planning.

Do you agree with the statement? Provide reasons for your answer.

26. How does an encysted Amoeba reproduce on return of favourable conditions?

27. What are gemmules and conidia? Name one organism each in which these are formed?
28. Name any two copper releasing IUD's. State how they act as a contraceptive.
29. Draw a well-labelled diagram of L.S of a pistil of a flower showing the passage of growing of pollen tube up to its destination.
30. Can a plant flowering in Mumbai be pollinated by pollen grains of the same species growing in New Delhi ? Provide explanations to your answer.
31. Name the type of cell division that takes place in the zygote of an organism exhibiting haplontic life cycle.
32. Differentiate between albuminous and non-albuminous seeds, giving one example of each.
33. Write the specific location and the functions of the following cells in human males :
- (i) Leydig cells
 - (ii) Sertoli cells
 - (iii) Primary spermatocyte
34. Name the embryonic stage that gets implanted in the uterine wall of a human female. Differentiate between ZIFT and ET
35. Describe the Lactational Amenorrhea method of birth control.
36. Give reasons why :
- (i) most zygotes in angiosperms divide only after certain amount of endosperm is formed.
 - (ii) groundnut seeds are exalbuminous and castor seeds are albuminous.
 - (iii) Micropyle remains as a small pore in the seed coat of a seed.
 - (iv) integuments of an ovule harden and the water content is highly reduced, as the seed matures.
 - (v) apple and cashew are not called true fruits.
 - (vi) Anthers of angiosperm flowers are described as ditheous.
 - (vii) Hybrid seeds have to be produced year after year.
37. Mention three strategies evolved to prevent self-pollination in flowers.
38. What is 'bagging' ? State its importance in artificial hybridization of flowering plants.
39. Name the three different parts of a human sperm and write their involvement in the process of fertilisation.
40. Why do doctors suggest some married couples to go for 'IVF' ? Explain the steps carried out in the process of 'IVF'.
41. How are the two Assisted Reproductive Technologies (ART), intracytoplasmic sperm injection and intrauterine insemination different ? Explain.

42. List the three hormones produced in women only during pregnancy. What happens to the levels of estrogen and progesterone during pregnancy ?

43. Draw a schematic transverse section of a mature anther of an angiosperm. Label its epidermis, middle layers, tapetum, endothecium, sporogenous tissue and the connective.

44. Differentiate between wind pollinated and insect pollinated flowers.

45. (a) IVF is a very popular method these days that is helping childless couples to bear a child. Describe the different steps that are carried out in this technique.

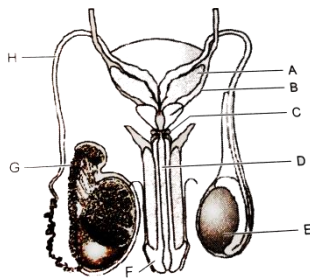
(b) Would you consider Gamete Intrafallopian Transfer (GIFT) as an IVF ? Give a reason in support of your answer.

46.(a) Draw a sectional view of a human ovary and label primary follicle, tertiary follicle, Graafian follicle and corpus luteum in it.

(b) Name the gonadotropins and explain their role in oogenesis and the release of ova.

47. For a layman, both apple and banana are fruits. But a biology student categorises fruits as true fruits, false fruits and parthenocarpic fruits. Justify

48.



The above diagram shows human male reproductive system.

(a) Identify 'E' and write its location in the body.

(b) Name the accessory gland 'A' and C and its secretion.

(c) Name and state the function of 'H'.

49. Explain the events in a normal woman during her menstrual cycle on the following days.

(a) Ovarian event from 13-15 days

(b) Ovarian hormones level from 16 to 23 days

(c) Uterine events from 24 to 29 days

50. (a) Draw a diagram of a fertilized embryo sac of a dicot flower. Label all its cellular components.

(b) Explain the development of a mature embryo from this embryo sac.

KENDRIYA VIDYALAYA MALLESWARAM, SHIFT-1 BANGALORE -55

Session : 2023-2024 Class -XII A,B & C Subject: English Core

Practice : Month : April , May ,June 2023

Internal Assessment: Assessment on Listening and Speaking Skill. (ALS)

Project Work - Viva Voice

Marks: 10 (5 Marks for Project + 5 Marks for Viva Voice)

Time allotted for project work: Preparation: 12th to 12th June 2023.

Presentation :22nd to 29th June 2023

Name of the Teacher : K. Parameswari PGT (English) KVM

Students are free to select any one of the topics given below as they are related to the text or any one of the topics from the audio links as they are National level themes.

Sino	Topic	Activity (Theatre/ Role Play/Verbal Presentation through ppt/Interview/Podcast) (Written script compulsory)
1	The Last Lesson	1. Importance of mother tongue. 2. English language and its status in the world.
2	My Mother at Sixty Six	1.Old age parents -care and concern for them. 2. Grand parents stories about their childhood or moral stories said by them.
3	Lost Spring	1.Occupational Hazards: Safety norms for workers
4.	The Third Level	Stress and anxiety can be avoided .

Write a report on the topic. You can refer to different sources for additional information. Prepare data and graphs, pictures and drawings, interview scripts, and a positive outlook. (800-1000 words)

Prepare a file. You can prepare a presentation through a audio and video form by covering all the topics as per the project file script.(5 Marks)

There would be a viva voice after the presentation. (5 Marks)

Assessment would be made on the following scale:

Time limit: 5 Minutes

Content, creativity, clarity of speech, Visuals, Expression and Presentation.

No of participants: Single participant. or four to five students in a group.

Write it in the record note on the following scale:

(Introduction

Concept and theme

Conclusion)

ग्रीष्मकालीन ग्रहकार्य 2023-24

- हिंदी कविता में प्रकृति चित्रण
- (पद्य उषा के आधार पर)
- (बगुलो के पंख के आधार पर)
- भाषा शैली, विशेषता
- वर्तमान के साथ प्रासंगिकता इत्यादि।

ग्रीष्मकालीन ग्रहकार्य 2023-24

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- वर्तमान के साथ प्रासंगिकता इत्यादि।

Holiday homework Economics

- 1.Explain the history of Reserve Bank of India
- 2.Explain the functions of Reserve Bank of India
- 3.Explain the functions of Commercial banks.
- 4.Explain the features of Indian economy on the eve of independence

HOLIDAY HOMEWORK- CLASS 6A- SHIFT1

IN A 40 PAGENOTEBOOK,DO THE FOLLOWING HOMEWORKS:

1. PREPARE A PICTURE DICTIONARY (20 WORDS)

2. BOOK REVIEW.(READ STORY BOOKS AND WRITE A BOOK REVIEW ON ANY 1 OR 2 STORIES YOU LIKED.)

3. LEARN TO SPEAK - PREPARE A SPEECH BASED ON THE FOLLOWING TOPICS (ANY ONE)

MY HOBBY

DISCIPLINE

HEALTH

MY AMBITION

MY SCHOOL

5. READ ENGLISH NEWSPAPER DAILY