Summer Vacation

SESSION 2024-25

CLASS-IX

SUSTAINABLE DEVELOPMENT GOALS

ENGLISH

1. Read English newspaper/watch English news daily to enrich your vocabulary and enhance your knowledge.
2. Answer these questions in about 100-120 words:

   A.) "Digital education and traditional education have to go hand-in-hand to ensure the holistic development of children." Comment with reference to "The Fun They Had."

   B.) "Life is the sum total of our choices." Explain with reference to "The Road not Taken."

3. Imagine you are the child from "The Lost Child." You were re-united with your parents at the end, owing to the kindness of a stranger. Write your experience in 100-120 words in the form of a diary entry.
4. Write a descriptive paragraph in about 100-120 words about your recent family get-together. Mention all the necessary details about the event, people involved, games, food, etc.
5. Make a story map on: The Adventures of Toto. (On A4 size sheet)
6. Art Integration Activity: Create a power point presentation(PPT) including language, dance, art form, and cuisine popular in Andaman and Nicobar. Use creative writing and design techniques to make your presentation visually appealing and informative. (6-8 slides max.)
7. Do Unit 1 of Workbook, 'Words and Expressions'.

Note: Do Ques. 2,3,4 in writing skill register.

SCIENCE

TASK-1 Draw well labelled diagram of the following:(portfolio)

a) Interconversion of three states of matter (Fig 1.9-page no. 8 New NCERT)
b) Animal cell (Fig 5.5-page no. 55 New NCERT)
c) Plant cell (Fig 5.6-page no. 56 New NCERT)
d) Elements of Xylem Tissue (Fig 6.7-page no.64 New NCERT)
e) Elements of Phloem Tissue (Fig 6.7-page no.64 New NCERT)
f) Location of Meristematic Tissue in plant body (Fig 6.2-page no.61 New NCERT)
TASK-2 Read and learn Chapter 1, 5 ,7 and 6 thoroughly from NCERT.
TASK-3 Answer the following questions: All Questions and Answers to be done on A4 size sheet.

BIOLOGY

Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R).
Mark the correct choice as:

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

Q.1. Assertion: A cell swells up when present in a hypotonic solution.
Reason: More water molecules enter the cell than they leave.

Q.2. Assertion: The endoplasmic reticulum which lacks ribosomes is called smooth endoplasmic reticulum
Reason: SER is mainly involved in protein synthesis.

Q.3. Assertion: Mitochondria and chloroplasts are semiautonomous organelles.
Reason: They are formed by division of pre-existing organelles and contain DNA but lack protein synthesizing machinery.

Q.4. Assertion: Plasma membrane is selectively permeable.
Reason: Plasma membrane allows some molecules to pass through it more easily than others.

Q5. Answer the following questions:
1] Differentiate the following:
 a) Prokaryotic and eukaryotic cell
 b) Meiosis and Mitosis cell division
 c) Plant and animal cell
 d) RER and SER
 2] What is the main function of each of the following? a) Mitochondria b) Golgi apparatus c) Lysosomes d) Ribosomes e) Chromosomes f) Plasma membrane
 3] Give reasons: a) Mitochondria are called the power house of cell. b) Lysosomes are called suicide bags.
 4] Which cell organelle is called kitchen house of the cell and why?
A). which plastids are colourless?
B. plasma membrane is made of which two components.

CHEMISTRY

Directions: In each of the following questions, a statement of Assertion is given, and a corresponding statement of Reason is given just below it. Of the statements, given below, mark the correct answer as:
(a) Both assertion and reason are true, and reason is the correct explanation of assertion.
(b) Both assertion and reason are true, but reason is not the correct explanation of assertion.
(c) Assertion is true, but reason is false.
(d) Assertion is false, but reason is true.

Q.1.Assertion: A gas can easily be compressed by applying pressure.

Reason: Since the inter-particle spaces between gases are very large, they can decrease by applying pressure.

Q.2.Assertion: Gases exert pressure on the walls of the container.

Reason: The intermolecular force of attraction is very strong in gases.

Q.3.Assertion: It is easier to cook food at sea level as compared to higher altitudes.

Reason: The boiling point of water increases at high altitudes.

Q.4.Assertion: When a solid melts, its temperature remains the same.

Reason: The heat gets used up in changing the state by overcoming the forces of attraction between the particles.

QNO 5. Answer the following question:

1]. A substance has a high compressibility and can be easily liquefied. It can take the shape of any container. Predict the nature of the substance and enlist 4 properties of the state of matte

2.] Define-sublimation, latent heat of fusion, latent heat of vaporization and condensation.

3] What is evaporation? List down factors effecting evaporation.

4] Change the following in Celsius into Kelvin scale- A)-100°c b)-40°c c) 30°c

5]" Osmosis is a special kind of diffusion" Comment.

6] Out of solids, liquids and gases. Which one has A) Maximum movement of particles. B) Maximum inter molecular attraction. C)

7] Account for the following a) The temp. of water remains constant during boiling. b) Vaporization is surface phenomenon's) Which two methods can be applied can we apply to convert gas into liquid

8] Give reasons a) Ice at 0°appears colder to the mouth than water at 0° Celsius. Why? b) A gas cylinder cannot be half filled.

9] Convert the following into Celsius scale- a)300K b)573K

10] Arrange the following substances in increasing order of force of attraction between particles a) milk b) salt c) oxygen The fundamental unit of life

PHYSICS

Directions: In each of the following questions, a statement of Assertion is given, and a corresponding statement of Reason is given just below it. Of the statements, given below, mark the correct answer as:

(a) Both assertion and reason are true, and reason is the correct explanation of assertion.

(b) Both assertion and reason are true, but reason is not the correct explanation of assertion.

(c) Assertion is true, but reason is false.

(d) Assertion is false, but reason is true.

Q1. Assertion: An object may acquire acceleration even if it is moving at a constant speed.

Reason: With change in the direction of motion, an object can acquire acceleration.

Q2. Assertion: Displacement of an object may be zero even if the distance covered by it is not zero.
Reason: Displacement is the shortest distance between the initial and final position.
Q3. Assertion: The graph between two physical quantities P and Q is straight line, when P/Q is constant.
Reason: The straight-line graph means that P is proportional to Q or P is equal to constant multiplied by Q.
Q4. Assertion: Velocity versus time graph of a particle in uniform motion along a straight path is a line parallel to the time axis.
Reason: In uniform motion the velocity of a particle increases as the square of the time elapsed.
Q5. Answer the following questions:
1. State the difference between
   a) Distance and displacement
   b) Speed and velocity.
2. when you will say a body is in
   a) uniform motion
   b) non uniform motion
3. A Bus decreases its speed from 80 km/h to 60km/h in 5 sec. find the acceleration of the bus.
4. what does the speedometer and odometer of an automobile read?
5. under what condition is the magnitude of average velocity of an object equal to its average speed?

<mark>*Social Science*</mark>

1. Project on Disaster management (A4 size sheet)
   Topics to be covered: meaning, causes, types, mitigation measures, details regarding recently occurred in India
      A) R. No. 1to 10- Earthquake
      B) R. No. 11to20- floods
      C) R. No. 21to30- cyclones
      D) R. No. 31to40- forest fires
      E) R. No. 41 onwards- Landslides
2. On A4 size sheet,
      A) Prepare a report of the General election of 2024 (not less than 2 pages.)
      B) Imagine you are a member of a political party and have been assigned to prepare manifesto of your party in the General election. Draft a manifesto for your party (it should not be copied from anywhere.)
3. Map work (globe- Map practice book)
   Do Pg no. 10,16, 20,21, 22,26, 30,43,44,72
4. Do given assignment in the assignment register

5. Art Integration Project(Paired state lakshdweep,Andaman & Nicobar island)

   1.2.3 STUDY OF NATURAL AND MAN-MADE FORMS, HUMAN FIGURES, VEGETATION, BIRDS AND ANIMALS.

   (Make a brochure explaining about natural vegetation and wildlife) R.NO. 1to 22

   2.1.3 BRIEF INTRODUCTION OF INDIAN MUSIC

   (Do in scrap book explaining about Indian classical music and musicians) R.NO. 23 onwards.

MATHEMATICS

INDEX

   (1)   **SUBJECTIVE ASSIGNMENT**
   (2)   **FORMULA SHEET**
   (3)   **DISASTER MANAGEMENT ACTIVITY**
   (4)   **ART INTEGRATED ACTIVITY**
   (5)   **The Two-Minute Mind (Activity for improving concentration)**

NOTE: Read the following instructions carefully before starting your HHW.

Do TASK-A in Assignment Register.
Do TASK- B on A4 size sheet of paper.
Do TASK- C Disaster Management Activity on A4 size sheet.
Do TASK- D Art Integrated Activity on A4 size sheet.

TASK-A

ASSIGNMENT

1. Find the value of a if $x - a$ is a factor of $x^3 - ax^2 + 2x + a - 1$.

2. If $a + b + c = 9$ and $ab + bc + ca = 26$ then find the value of $a^2 + b^2 + c^2$

3. If $x + y = 9$ and $xy = 20$ find $x^2 + y^2$.

4. If $f(z) = z^2 - 3z+1$ then find $f(\mathbf{3\sqrt{3}})$.

5. Factorise : $2x^3 - 3x^2 - 17x + 30$

6. Factorise : $(2r - 3s)^3 + (3s - 4t)^3 + (4t - 2r)^3$

7. **Simplify: $1/[7+3\sqrt{3}]$**

8. The polynomials $ax^3 + 3x^2 - 3$ and $2x^3 - 5x + a$ when divided by $(x - 4)$ leaves remainder R_1 and R_2 respectively. Find the value of a if $2R_1 - R_2 = 0$.

9. **Express 0.8888..... in the form p/q, where p and q are integers and q ≠ 0:**

10.   Write the mirror image of the following if x axis is considered as mirror:

(-4,3),(2,5),(1,-5),(-3,-6)

Also ,write perpendicular distance of each coordinate from y axis?

ASSERTION AND REASONING

DIRECTION: In each of the following questions, a statement of Assertion is given followed by a corresponding statement of Reason just below it. Mark the correct answer as:

    a) Both assertion and reason are true and reason is the correct explanation of assertion.

    b) Both assertion and reason are true but reason is not the correct explanation of assertion.

    c) Assertion is true but reason is false.

    d) Assertion is false but reason is true.

Q11. Assertion: Polynomial 12x+7 is called a binomial.

    Reason: A polynomial having one term is called a binomial.

Q12. Assertion: The degree of the polynomial (x-2)(x-3)(x+4) is 4.

    Reason: The highest power of a polynomial is the degree of that polynomial.

CASE STUDY QUESTIONS

Q13. Jay wants to distribute masks and hand sanitizer bottles in his colony. The number of masks and sanitizer bottles distributed in a day can be represented by the zeroes of the polynomial p(x)= x^2 – 9x + 20. Answer the following:

a). What is the value of p(x) at x=4?

b). Which type of a polynomial is given in the above expression?
c). What is the coefficient of x in above polynomial?

d). Which is the constant term in above polynomial?

e). Find the degree of the given polynomial?

TASK B
Prepare a creative formula sheet of polynomials on A4 size sheet.

TASK C

DISASTER MANAGEMENT ACTIVITIES:

ACTIVITY 1: (Roll No. 1 to 23) Due to some electric spark, Ravi a student of class IX saw that a room of the school set on fire. Taking permission from his teacher and being an active child, he thought to call at fire station A, which is 3 units away on positive side of x axis but one of his friends suggested him to

make call at another fire station B which is 5 units away on negative side of y axis. Considering position of school at origin. Answer the following:

A. Which fire station would help out early in case of emergency? Give reason.

B. Represent the above situation on graph representing coordinates of both stations and school.

C. How such disasters can be prevented? Explain.

D. What values has been shown by Ravi and his friend?

Activity 2: (Roll No. 24 Onwards....) An Endemic disease has been spread in xyzzy locality. Shyam student of class ix was too worried and wanted to aware people so as to stop the spread of such health disaster. Being good in mathematics, he made a poster showing effect of multiplication of disease using concept of algebraic exponents. Consider yourself to be in his place. Answer the following:

A. Make a poster displaying multiplication of disease.

B. What precautions one should take to prevent himself and spread of such disease? Make a pamphlet.

C. What values has been shown by Shyam in above scenario?

TASK-D ART INTEGRATION PROJECT

PAIRED STATE- LAKSHADWEEP AND ANDAMAN AND NICOBAR ISLAND

1. Art Integration (Roll No. 1 to 23)

You have to do coconut shell craft / bamboo craft for making anything useful. Exp- Pen holder, bowls, wind chimes, diyas etc. and explain its aim, material used and description on A4 size sheet.
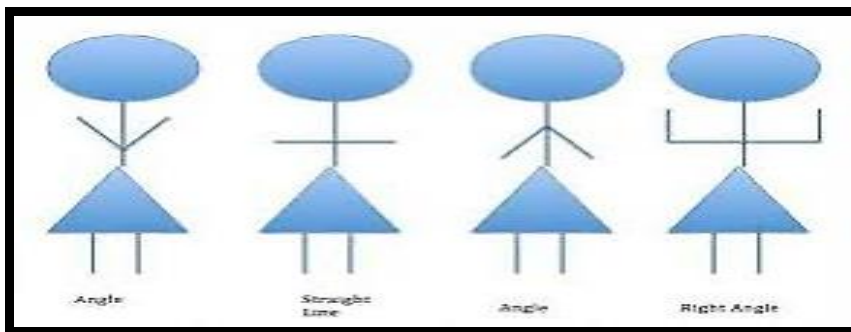
Reference example:

2. Art Integration (Roll no. 24 onwards)

You have to use different angles from the culture or architectural design from Lakshadweep or Andaman and Nicobar Island and draw it on A3 size sheet. For Exp- dance form of Lakshadweep or Andaman and Nicobar Island

Reference example:

Note: Make 3-D structures of above activity using clay, wooden sticks etc. Also mention the degree of angles.

TASK E

The Two-Minute Mind

(Activity for improving concentration: Practise it daily)

The Two-Minute Mind

Sit in front of a clock or a watch that has a sweep second hand.

Relax for a few moments, collect your attention, and when you're ready, place your attention on the motion of the second hand.

For two minutes,

focus your awareness

on the movement of the second hand as if nothing else in the universe existed.

If you lose the thread of concentration by thinking about something else, or just by spacing out,

stop,

collect your attention, and start again.

Try to keep your concentration for two solid minutes.

Start now.

हिंदी

1. नियमितरूप से समाचार पढ़ते हुए —

    हिंदी समाचार की सहायता से विभिन्न प्रकार के विज्ञापन एकत्रित करके एक आकर्षक कोलाज A3 शीट पर बनाए।

2. हिंदी महीनों के नाम लिखकर उनमें आने वाले पर्व एवं त्योहारों के नाम लिखें। (A4 शीट पर)

3. व्याकरण की पुस्तक में अपठित गद्यांश पृष्ठ सख्यां (23 – 30) तथा अपठित काव्याशं पृष्ठ सख्यां (61 – 70) को पढ़कर में ही सही उत्तर पर निशान लगाए।

4. निम्नलिखित विषयों पर लगभग 120 शब्दों में अनुच्छेद लेखन करें।

    (क)   मधुर वचन है औषधि कटुक वचन है तीर

    (ख)   जहाँ सुमति वहँ संपति नाना।

5. क्षितिज और कृतिका में पढ़ाए गये पाठों का अभ्यास करें।

SUBJECT: ARTIFICIAL INTELLIGENCE (417)

Question 1: Do the course on website **"AI FACILITATOR COMMUNITY"** and after completion, maintain the document file (**including screenshots & certificate**) in MS Word.
Important Steps to be followed:
1.   **Website link**: https://aifacilitator.community/about
    • Click on **AI FOR ALL** & Register here - **Setup an account**
2.   **Login with Mobile no.**
Complete the **two courses (AI AWARE and AI APPRECITATE)**

SUBJECT: INFORMATION TECHNOLOGY (402)

Question 1: Create an invitation card for birthday celebration (Using Word Processor Ex: MS Word, OpenOffice Writer & Google Docs) **(refer page no: 115 of your textbook)**
OR
Create an greeting card for New Year (Using Word Processor Ex: MS Word, OpenOffice Writer & Google Docs) **(refer page no: 115 of your textbook)**

PHYSICAL EDUCATION

Project: **Project on Hand ball: Topic-History of Game, Name of Players, Tournament, Terminology & Rules**
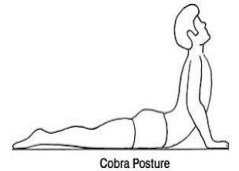
Activity:

1. Do 15 minutes jogging daily for warm up your body and after than do 15-minute exercise for keep your body healthy.

2. Yoga: Practice the following Yogasanas:

Bhujangasana

Benefits: **(a)** It cures the diseases of liver.

(b) It cures the disorder of urinary bladder.

Paschimottamasana

Benefits: **(a)** It alleviates gas trouble.

(b) It is a good remedy of constipation.

Pawanmuktasana

Benefits: **(a)** It eases the tension in lower back.

(b) It helps in reducing the fats of thighs, buttocks, abdominal area.

Ardhmatseyendrasana

Benefits : **(a)** It keeps Gall Bladder area and the prostate gland healthy.

(b) It alleviates digestive elements.

3. Do daily practice of 10 cycle of Surya namaskar.

"Prevention is better than cure"

IFM

Holidays homework

Q1. What is meant by medium of exchange?

Q2. Write a short note on store of value.

Q3. Why should money be divisible into usable quantities?

Q4. Explain the characteristics of money.

Q5. Money helps to simplify the – ——process

Q6. Money must not be easily reproduced by people and should be ————-

Q7. Money is also called as ————-

Q8. The money used in France is called ———

Q9. The money used in United States is called ———

Q10.The process of stamping of pictures on metals is known as ————

Q11.In early times barter system of exchange was there ,will the barter system work now?

Q12.Describe briefly about division of labor.

Q13.Write a short note on specialization,

Q14.what do you mean by barter system?

Learn ch1&2

DRAWING

Draw and colour of the following topic in drawing file.

1.Poster- Save Environment(colour)

2.Landscape(colour)

Craft

Make a useful craft with the help of waste plastic bottle or newspapers or cardboard etc.

संस्कृत

1) धातु रूप :- दा , क्षाल और नी धातु के लट् , लृट् और लङ् लकार रूप लिखिए व याद कीजिए।
2) शब्द रूप :- फलम् , पत्रम् और नदी के शब्द रूप लिखिए व याद कीजिए।
3) मणीका - पाठ 3 और 4 शब्दार्थ कार्य पुस्तिका में करें।
4) संख्या 1 से 50 (संस्कृत में) लिखिए।
5) ग्रीष्मकालीन अवकाश में की गई किसी यात्रा की फोटो खींचकर लगाइए तथा उसका वर्णन 50 - 60 शब्दों में कीजिए। (A 4 size sheet)
6) कोई चार श्लोक संस्कृत में लिखिए तथा याद कीजिए । (A 4 size sheet)
7) वर्ग पहेली हल करके A 4 size sheet पर बनाइए।
8) अपठित गद्यांश आधारित प्रश्न उत्तर कार्य पुस्तिका में करिए। (गद्यांश हेतु पी डी एफ homework section पर upload कर दी गई है।)

PAT

Make a project on **KHO-KHO**.

TOPICS TO BE COVERED:

History, Name of Players, Tournament, Terminology, Ground Measurements & Rules