

Dear Students & Parents,

Greetings!!!

As we celebrate the triumph of good over evil, it is time to rejuvenate, spend quality time with loved ones, and return with a renewed spirit of curiosity.

The school will remain closed for the **Autumn Break** from **16th Oct-25th Oct 2026**. Normal classes will resume on their regular timings from **26th Oct 2026 onwards**.

Wishing you and your families a joyous, safe, and blessed Vijayadashami!

May the festival of Dussehra inspire you with the strength to overcome challenges and always choose the path of truth, righteousness, and learning.....

To keep our students constructively engaged and practiced during this short vacation, we have curated subject oriented holiday homework. These activities are designed to balance festive celebrations with creative learning.

Regards

Principal

DLSK

Class 9 Holiday Homework

SCIENCE QUESTION PAPER

Time: 3 Hours / Maximum Marks: 80

SECTION A

1. Which of the following statements is incorrect? [1]

- (a) Parenchymatous tissues have intercellular spaces.
- (b) Collenchymatous tissues are irregularly thickened at corners.
- (c) Apical and intercalary meristems are permanent tissues.
- (d) Meristematic tissues, in their early stage, lack vacuoles.

2. A person met with an accident in which two long bones of hand were dislocated. Which among the following may be the possible reason? [1]

- (a) Tendon break
- (b) Break of skeletal muscle
- (c) Ligament break
- (d) Areolar tissue break

3. Which of the following cells is found in the cartilaginous tissue of the body? [1]

- (a) Mast cells
- (b) Basophils
- (c) Osteocytes
- (d) Chondrocytes

4. Which of the following is a correct statement? [1]

- A. The nature of the matrix differs according to the function of the tissue.
- B. Fats are stored below the skin and in between the internal organs.
- C. Epithelial tissues have intercellular spaces between them.
- D. Cells of striated muscles are multinucleate and unbranched.

1. Which of the following tissues has dead cells? [1]

- (a) Parenchyma
- (b) Sclerenchyma
- (c) Collenchyma
- (d) Epithelial tissue

2. Girth of stem increases due to: [1]

- (a) Apical meristem
- (b) Lateral meristem
- (c) Intercalary meristem
- (d) Vertical meristem

3. Find out the incorrect sentence: [1]

- (a) Parenchymatous tissues have intercellular spaces.
- (b) Collenchymatous tissues are irregularly thickened at corners.
- (c) Apical and intercalary meristems are permanent tissues.
- (d) Meristematic tissues, in their early stage, lack vacuoles.

4. Choose the correct statement(s):

- B. Fats are stored below the skin and in between the internal organs
- C. Epithelial tissues have intercellular spaces between them
- D. Cells of striated muscles are multinucleate and unbranched [1]

a) (D) b) (B) c) (C) d) (A)

5. Which one of the following is broad leaf weed? [1]

- a) Convolvulus b) Chenopodium
- c) All of these d) Amaranthus

6. Assertion (A): Meristematic tissues are growth tissues and found in the growing regions of the plant.

Reason (R): According to the position of meristematic tissues they are of three types. [1]

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

7. Assertion (A): Mitochondria are called powerhouses of the cell.

Reason (R): Mitochondria produce cellular energy in the form of ATP. [1]

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

8. Describe the function of bones. [2]

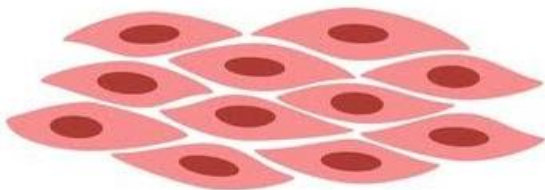
9. If the organisation of a cell is destroyed due to some physical or chemical influence, what will happen? [2]

OR

What is the functional unit of life? Define it.

10. Why are manure and fertilizers used in fields? [2]

11. Observe the given figure and answer the following questions: [3]



i. Identify the type of tissue mentioned in the given figure.

ii. Write any two characteristics of the type of tissue mentioned in the given figure.

iii. Where is the given tissue found in our body? What is the nature of the given tissue mentioned in the diagram?

12. Observe the given image and answer the following questions: **[3]**



[Diagram: Plant held in

hands representing Green Manure]

- i. What is the main purpose of green manure?
- ii. Name any two plants which can be used for green manure.
- iii. What is the advantage of using biological manure?

13. Read the following text carefully and answer the questions that follow: **[4]**

Animal tissue has various types of epithelial tissue, connective tissue, muscular tissue, and nervous tissue. One of them is the connective tissue which consists of blood, bone, and cartilage. Blood is the fluid matrix called plasma in which red blood cells, white blood cells, and platelets are suspended while bone forms the framework that supports the body; it also anchors the muscle and supports the main organ of the body. Two bones are connected by a ligament. Cartilage is a solid matrix composed of sugar and protein.

- i. Name the tissue which connects muscle to a bone. (1)
- ii. Matrix of bone cells are composed of (1)
- iii. Two bones are connected by ligament. How does muscle connect to the bone? (2)

OR

Where is the cartilage found in the human body? (2)

14. What are cell organelles? Write the names of different cell organelles. **[5]**

OR

- i. Which process in meristematic tissue converts it to permanent tissue?
- ii. Which feature of meristematic tissue helps aquatic plants to maintain buoyancy in water?
- iii. Why are epidermis of plants living in dry habitats thicker?
- iv. Identify the following:
 - a. Living component of xylem
 - b. Dead element of phloem

v. Which type of conducting tissues conduct water and minerals vertically?

SECTION B

15. Which of the two statements is true?

Statement A: The temperature of the liquid becomes constant once it starts boiling.

Statement B: The pressure of air at sea level is 70 cm. [1]

- a) Both A and B are false b) Both A and B
c) Statement B d) Statement A

16. Which of the following statements is not true about H_2SO_4 ? [1]

- A. It is composed of 2 Hydrogen, 1 Sulphur, and 4 Oxygen atoms.
B. Its relative molecular mass is 98.
C. It is composed of one molecule of H_2 , one atom of S, and two molecules of O_2 .
D. Its relative molecular mass is 108.

- a) B and C b) All of these c) A, B and D d) C and D

17. Fermentation of grapes is an example of [1]

- a) Chemical change b) Redox reaction
c) Reversible change d) Physical change

18. Match the following with the correct response: [1]

Column I	Column II
(a) Discovery of subatomic particles	(i) Orbits
(b) Energy levels	(ii) Positively charged
(c) Universal particles	(iii) Electrons
(d) Canal rays	(iv) Discharge tube

- a) (a) - (ii), (b) - (iv), (c) - (i), (d) - (iii) b) (a) - (iii), (b) - (ii), (c) - (iv), (d) - (i)
c) (a) - (iv), (b) - (i), (c) - (iii), (d) - (ii) d) (a) - (i), (b) - (iii), (c) - (ii), (d) - (iv)

19. The number of electrons present in outermost cell of sodium is [1]

- a) 5 b) 3 c) 2 d) 1

20. A solution contains 40g of common salt in 320g of water. Which of the following is the concentration in terms of mass by mass percentage of the solution.

- a) 10.1% b) 11.1% c) 14% d) 11.0%

21. Which one is a physical change? [1]

- a) Mixing NH_3 and HCl b) Adding NaCl to water
c) Mixing BaSO_4 + NaCl d) Burning magnesium in air

22. Assertion (A): We use names and symbols as stated by IUPAC.

Reason (R): Many symbols are the last letter or the last two letters of the name of the element. [1]

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

23. State the Postulates of Rutherford's atomic model. [2]

24. The average atomic mass of chlorine atoms is 35.5u, How? Explain. [3]

OR

Differentiate between isotopes and isobars based upon the various properties that they show.

25.i Draw the atomic structure of an atom of element $^{23}_{11}\text{A}$, according to Bohr's model of atom. [3]

ii. Write the chemical formula of the chloride of this element.

iii. Write one limitation of Bohr's atomic model.

26. Read the following text carefully and answer the questions that follow: [4]

Matter around us exists in three different states—solid, liquid and gas. These states of matter arise due to the variation in the characteristics of the particles of matter. Solids have a tendency to maintain their shape when subjected to outside force. Solids may break under force but it is difficult to change their shape, so they are rigid. The difference in various states of matter is due to the difference in the distances between the constituent particles. Pressure and temperature determine the state of a substance, whether it will be solid, liquid or gas.

Liquid
// \\
Solid. ===== Gas

i. Write the properties of solid state of matter? (1)

ii. How does solid get converted directly into gaseous states of matter? (1)

iii. What is vaporization? (2)

OR

Give an example from which we can say that gas can be directly converted into a solid state of matter? (2)

27. Complete the following table: [5]

Atomic Number	Mass Number	Number of Neutrons	Number of Protons	Number of Electrons	Name of the Atomic Species
9	-	10	-	-	-
16	32	-	-	-	Sulphur
-	24	-	12	-	-
-	2	-	1	-	-
-	1	0	1	0	-

SECTION C

28. Which of the following can be an effect of force . **[1]**

- a) Change the shape and size of the object
- b) Move a stationary object c) Stop a moving object
- d) All of them

29. Which of the following energy cannot be completely converted into other forms due to the transmission system? **[1]**

- a) Nuclear energy b) Solar energy
- c) Heat energy d) Mechanical energy

30. Which of the following is a false statement?

- A. The body can have a constant velocity and still have a varying speed.
 - B. The body can have zero velocity and still be accelerated.
 - C. The body can have a constant speed and still have varying velocity.
 - D. The direction of the velocity of a body can change when its acceleration is constant. **[1]**
- a) (A) b) (B) c) (D) d) (C)

31. Upthrust depends on: **[1]**

- a) dipped volume of the body immersed b) density of the liquid
- c) both density of the liquid and dipped volume of the body immersed.
- d) volume of the liquid

32. Assertion (A): The lemon squeezer is a 2nd class lever

Reason (R): The position of load is in between fulcrum and effort. **[1]**

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

33. A hockey ball of mass 200 g travelling at 10 ms^{-1} is struck by a hockey stick so as to return it along its original path with a velocity at 5 ms^{-1} . Calculate the magnitude of change of momentum occurred in the motion of the hockey ball by the force applied by the hockey stick. [2]

34. The kinetic energy of an object of mass m moving with a velocity of 5 ms^{-1} is 25 J. What will be its kinetic energy when its velocity is doubled? What will be its kinetic energy when its velocity is increased to three times? [2]

OR

An engine can pump 30,000 litres of water at a vertical height of 45 metres in 10 minutes. Calculate the work done by the machine and its power. [$g = 9.8 \text{ m/s}^2$; Density of water = 10^3 kg/m^3 , 1000 litre = 1 m^3].

35. A trolley while going down an inclined plane, has an acceleration of 2 cm/s^2 . What will be its velocity second after the start?

36. A bullet of mass 50g moving with a speed of 100 m/s enters a heavy stationary wooden block and stops after penetrating a distance of 50cm. Find the stopping force acting on the bullet. [3]

37. A car of mass 2000kg started from rest, after 3 seconds achieved a velocity of 36 kmph, moved with constant velocity for next 3 seconds, started decelerating from 6th second and came to rest at 10th second.

- i. Calculate the force on the object in a time interval 0 to 3 s.
- ii. Calculate the force on the object in a time interval 6 to 10 s.
- iii. Is there any time interval in which no force acts on the object? Justify your answer.

38. Read the following text carefully and answer the questions that follow: [4]

Work is done whenever a force moves something over a distance. You can calculate the energy transferred, or work done, by multiplying the force by the distance moved in the direction of the force. Energy transferred = work done = force $\times$ distance moved in the direction of the force.

Four men lift a 250 kg box to a height of 1 m and hold it without raising or lowering it.

- i. Define work done. (1)
- ii. How much work is done by the men in lifting the box? (1)
- iii. How much work do they do in just holding it? (2)

OR

Why do they get tired while holding it? ($g = 10 \text{ ms}^{-2}$) (2)

39. i. Suppose the mass of an object somehow increases by 10% without any change in its size. What would happen to its weight? [5]

ii. Suppose the radius of the earth becomes twice of its present radius without any change in its mass. And the value of g (acceleration due to gravity) becomes $g/4$. What will happen to your weight.

OR

State Newton's three laws of motion . 3

How is the balanced force different from an action-reaction pair of force? 2

English

General Instructions

- Complete all four writing tasks in your English notebook or on A4 sheets.
- Follow the prescribed format for each writing task.
- Pay attention to grammar, vocabulary, spelling, punctuation and paragraph organisation.
- Write neatly and present your work creatively.
- Adhere to the suggested word limits.
- Submit on the 27th of October 2026

.....

Q1. Notice Writing

Your school is organising an Inter-House Eco-Friendly Craft Competition to encourage students to reuse waste materials and promote environmental awareness. As the Secretary of the Eco Club, draft a notice informing students of Classes IX and X about the competition.

Include the following details:

Date and venue of the competition

Theme and materials to be used

Last date for registration

Name of the teacher to be contacted for further details

Word limit: 50 words

Q2. Factual Description

Your school recently inaugurated a Smart Learning Centre equipped with modern educational facilities. Imagine that you have visited the centre and observed its features.

Write a factual description of the Smart Learning Centre in about 100–120 words.

You may include the following points:

- Location and size of the centre
- Furniture and seating arrangement
- Digital boards, computers and other equipment
- Lighting, ventilation and cleanliness
- How the centre supports teaching and learning

Remember to present the information objectively and logically, using precise and appropriate language.

Q3. Formal Letter Writing

You are Aarav/Aarushi, a student of Class IX living at 24, Green Park, Hyderabad. The main road in your locality has several potholes, and the absence of proper streetlights makes it unsafe for pedestrians, especially schoolchildren and senior citizens.

Write a letter to the Municipal Commissioner of your city, highlighting these problems and requesting immediate action to improve road safety and public convenience.

Your letter should include:

- *A clear description of the problems
- *The difficulties faced by residents
- *Possible risks to pedestrians and motorists
- *Practical suggestions and a polite request for prompt action
- *Word limit: 120–150 words

Q4. Essay Writing

Write an essay on the following topic:

“The Power of Small Acts of Kindness in Building a Better Society”

In your essay, explore how simple acts of kindness can influence individuals, strengthen relationships and create positive changes in society.

You may develop your ideas around the following points:

- *The meaning and importance of kindness
- *Kindness at home, in school and in the community
- *How small gestures can make a difference
- *The role of empathy and respect in resolving conflicts
- *Ways in which young people can spread kindness

Your concluding thoughts on making kindness a way of life

Word limit: 150–200 words

A message for students: Holiday homework is an opportunity to develop your imagination, strengthen your writing skills and express your ideas with confidence. Make every piece of writing thoughtful, original and meaningful.

Happy Holidays! 🌿

कक्षा 9 हिंदी गृह कार्य

1-“सोशल मीडिया का विद्यार्थियों पर प्रभाव” विषय पर लगभग 200 शब्दों में अनुच्छेद लिखिए।

2-“1857 की क्रांति” प्रथम स्वतंत्रता संग्राम के विषय पर जानकारी एकत्र कर भारत के मानचित्र द्वारा व्याख्या कीजिये लिखित में।

3-पर्यावरण संरक्षण के प्रति जागरूकता फैलाने के लिए एक आकर्षक विज्ञापन तैयार कीजिए।

4-दस उपसर्ग और दस प्रत्यय वाले शब्द लिखिए।

5-अपनी हिंदी की पाठ्यपुस्तक से झांसी की रानी पाठ का चित्रात्मक सारांश तैयार कीजिए।

Subject: Mathematics

Chapter 1: Orienting yourself: The use of coordinates

Find the co-ordinate of point A , where AB is a diameter of a circle whose centre is (2,-3) and B is the point (1 , 4)

- Find the point on the X-axis which is equidistant from the point (-1, 0) and (5,0) . If the point P(k-1 ,2) is equidistant from the points A(3 ,k) and B (k, 5).find the value of k.
- Show that points are lying in a straight line. (7, -2), (5 ,1) (3, 4)
- Find the distance between the points (1,-8) (-4,7).
- Plot the points A (2, 1), B(-1, 2), C(-2, -1) and D (1, -2) in the coordinate plane. Is ABCD a square? Can you explain why? What is the area of this square?

Chapter 2: Introduction to Linear Polynomial

* Find the degree of the following polynomials:

a. $2x^2 - 5x + 3$ b. $y^3 + 2y - 1$ c. -9

* Find the value of the linear polynomial $5x - 3$ if

a. $x=0$ b. $x= -1$

* The sum of two numbers is 91. One number is 17 more than the other. Find the numbers

* Ravi saves Rs.200 every month and already has Rs.1500.

a) Write a linear polynomial for the total savings after 'x' months

b) Find the savings after 10 months

The linear relationship between x and y is given by $y=5x-1$. Find the value of x when $y=14$.

*Find the slope of lines $y = 6x + 5$ and $y = 3x +10$.

*Find 3 solutions of $y=3x + 1$.

*Draw the graph of the equation $y=2x + 3$

Chapter 3: The world of numbers

Find the rational numbers between $4/7$ and $5/7$

Solve the following

$2/5 + 3/10$ $2/3 \div 6/20$ $6/7 - 3/4$

A farmer divides his field equally among 3 children. Each child gets $\frac{1}{3}$ of the field. If the field measures $\frac{9}{4}$ acres, how much does each child receive?

Prove that $\sqrt{2}$ is irrational.

Convert 0.1666... into the form $\frac{p}{q}$, showing all steps.

The decimal expansion of an irrational number is_____.

Find two irrational numbers between $\frac{1}{7}$ and $\frac{2}{7}$. Given that $\frac{1}{7} = 0.142857142857\ldots$

Chapter 4: Exploring Algebraic Identities

*Expand the following using identities

(5x + 2y)² b. (7x – 4y)² c. (4x + 2y)³

*Factorize the following

$x^2 + 7x + 10$ b. $x^2 - 6x + 8$

* Find the values using suitable identities

(127)³ b. (79)² c. 24×16

* Factor the following algebraic expression

$64x^2 + 32/3xy + 4/9y^2$ b. $4x^2 + 9y^2 + 36z^2 + 12xz + 36yz + 24xy$

* Find the possible expression for the length, breadth and heights of the following cuboid whose volume is $6a^2 - 24b^2$.

Simplify:

(3x+5y) (3x- 5y) b) (a-4b)(a+4b)(a² + 16b²)

Chapter 5: I'm Up and Down, and Round and Round

*Draw ΔPQR , with $PQ=6\text{cm}$, $\angle P=110^\circ$ and $\angle Q=35^\circ$ construct its circumcircle. Is the circumcenter inside, outside or on the triangle?

*The distance of a chord of length 16 cm from the centre is 6cm. Find the radius of the circle.

*In a circle, a chord is 5 cm away from the centre. If the radius of the circle is 13 cm, what is the length of the chord?

*Prove that the line joining the centre of a circle and the midpoint of a chord of the circle is perpendicular to the chord.

Chapter 6: Measuring Space: Perimeter and Area

Calculate the length of a circle if

Radius= 7cm and angle= 45° b) Radius= 10.5cm and angle= 90°

*How many times will the wheel of a car rotate in a journey of 88 km? (Given radius = 28 cm)

*Find the area, if the height of an equilateral triangle is 15 cm.

*The sides of a triangle are in the ratio of 12:17:25 and its perimeter is 540 cm. Find its area.

*Find the area of a quadrant of a circle whose circumference is 66cm.

Chapter 7: The mathematics of maybe: introduction to probability

Write the sample space of a coin tossed three times.

A table below shows the number of students attending three different clubs

Club

Number of students	Music	Sports	Art
	18	12	10

A student is chosen at random

*Find the probability that the students attends the music club?

*Find the probability that the student attends either the sports or art club?

*Which club has the highest probability?

*Consider the following events:

The sun will rise tomorrow

Getting number 8 when a die is thrown

Getting an even number when a die is thrown

Based on the above information, answer the following questions

*Identify the sure event.

*Identify the impossible event

(a) Write the probability of the sure event

Or

(b) Write the probability of the impossible event

A card is drawn at random from a well shuffled deck of 52 playing cards.

Based on the above information, answer the following questions:

Write the total number of outcomes.

(a) Find the probability of getting a red card

Or

(b) Find the probability of getting a king Name the type of probability used.

CLASS: IX

SUBJECT: SOCIAL

On a political map(s) India Locate and mark

1) All the states and Union territories of India.

2) Megalithic sites and early finds of Iron (T.B Page 102 figure 5.3)

- | | | | |
|---------------------|----------|-------------|--------------------|
| a) Brahmagiri | b) Ahar | c) Hallur | d) Nagda |
| e) Adi Charallu | f) Maski | g) Malhar | h) Nagarjuna Konda |
| i) Gandhara Cavesj) | Nartiang | k) Burzahom | l) Lahuradeva |

3) 16 Mahajanapadas and kingdoms of Tamilakam

(T.B page 104 ----- fig 5.4)

4) Kingdoms and empires flourishing between 3rd and
(T.B page 113 ---- fig 5.6)

5) Some of the prominent universities and advance centres of learning in
early India. (T.B.Page 126 ----- fig 5.10)

6) Major trade routes of early historical India . (T.B Page 130 fig: 5.12)