

Practice Material

Class IX

Day & Date	Subject to be covered	Time Slot
Wednesday 05.08.2026	PHYSICS, MATHS HINDI/SANSKRIT	9:00-9:45 A.M 10:00-10:45 A.M 11:00-11:45 A.M
Thursday 06.08.2026	CHEMISTRY, SOCIAL SCIENCE HINDI	9:00-9:45 A.M 10:00-10:45 A.M 11:00-11:45 A.M
Friday 07.08.2026	MATHS BIOLOGY SOCIAL SCIENCE	9:00-9:45 A.M 10:00-10:45 A.M 11:00-11:45 A.M
Monday 10.08.2026	MATHS I.T PHYSICS	9:00-9:45 A.M 10:00-10:45 A.M 11:00-11:45 A.M
Wednesday 12.08.2026	I.T HINDI/SANSKRIT SOCIAL SCIENCE	9:00-9:45 A.M 10:00-10:45 A.M 11:00-11:45 A.M

INSTRUCTIONS: SOLVE THE QUESTIONS IN YOUR BIOLOGY REGISTERS.

BIOLOGY:

Q1) How does intercalary meristem help grasses survive grazing by animals?

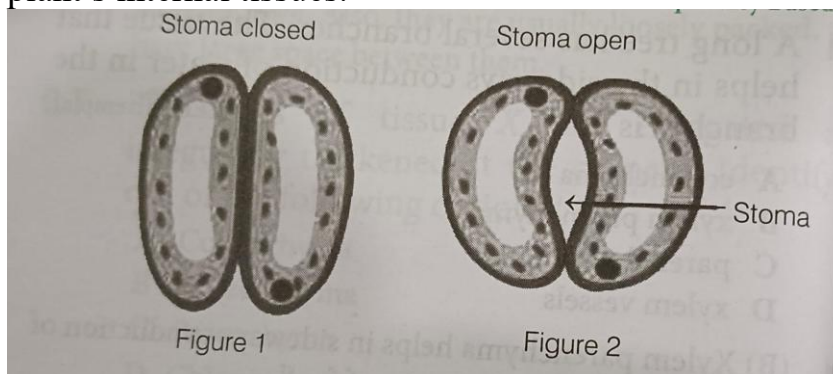
Q2) Water hyacinth floats on water surface. Explain.

Q3) Identify the type of tissues in following:

Bark of tree, vascular bundle

Q4) Which process in meristematic tissue converts it to permanent tissue?

Q5) Read the following case carefully and answer the questions that follows:
Stomata are minute openings found in the epidermis of plant leaves. Each stoma allows carbon dioxide, oxygen and water vapour to diffuse in and out of a plant's internal tissues.



i) Each stoma is surrounded by a pair of bean-shaped cells. What is this pair of cells known as?

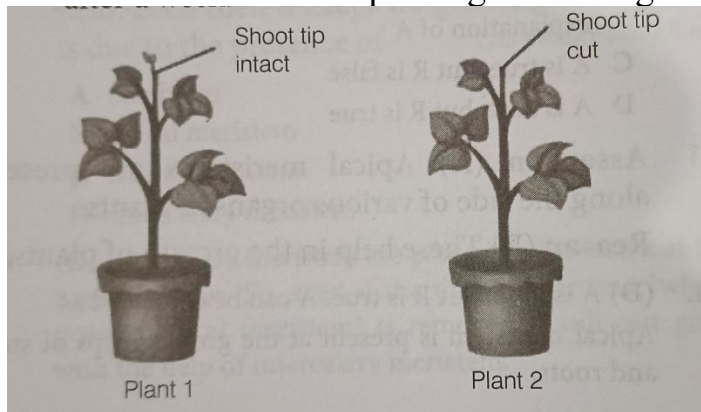
ii) Why do desert plants have smaller and fewer stomata as compared to rainforest plants? Explain your answer.

Q6 Read the following case carefully and answer the questions that follows:

Apical meristem is a type of tissue that helps plants to grow in length.

Tina took two identical potted plants and cut the shoot tip of one of them.

She observed if the two plants grew in height after a week.



(i) What was Tina trying to find out about shoot tips through her experiment?

(ii) Which of these conditions would have made Tina's experiment invalid?

Circle 'Yes' or 'No' to mark your responses.

	Would this have made the experiment invalid?	Yes or No
(a)	Keeping one plant in sunlight and the other in a dark room	Yes/No
(b)	Watering both the plants equally	Yes/No
(c)	Adding manure to the soil of plant 1 only	Yes/No

iii) Why do cells of apical meristem lack vacuoles?

PHYSICS PRACTICE WORKSHEET

1. Which of the following statement is not correct for an object moving along a straight path in an accelerated motion? (a) Its speed keeps changing

- (b) Its velocity always changes
- (c) It always goes away from the earth
- (d) A force is always acting on it

2. A goalkeeper in a game of football pulls his hands backwards after holding the ball shot at the goal. This enables the goal keeper to

- (a) exert larger force on the ball
- (b) reduce the force exerted by the ball on hands
- (c) increase the rate of change of momentum
- (d) decrease the rate of change of momentum

3. The inertia of an object tends to cause the object

- (a) to increase its speed
- (b) to decrease its speed
- (c) to resist any change in its state of motion
- (d) to decelerate due to friction

4. The function of mud guards is based on

- (a) inertia of rest
- (b) inertia of direction
- (c) inertia of motion
- (d) none of the above

5. A passenger in a moving train tosses a coin which falls behind him. It means that motion of the train is (a) accelerated

- (b) uniform
- (c) retarded
- (d) along circular tracks

6. An object of mass 2 kg is sliding with a constant velocity of 4 m s⁻¹ on a frictionless horizontal table. The force required to keep the object moving with the same velocity is (a) 32 N

- (b) 0 N
- (c) 2 N
- (d) 8 N

7. There are three solids made up of aluminium, steel and wood, of the same shape and same volume. Which of them would have highest inertia?

8. Two balls of the same size but of different materials, rubber and iron are kept on the smooth floor of a moving train. The brakes are applied suddenly to stop the train. Will the balls start rolling? If so, in which direction? Will they move with the same speed? Give reasons for your answer.

9. Two identical bullets are fired one by a light rifle and another by a heavy rifle with the same force. Which rifle will hurt the shoulder more and why? A bullet of 10 g strikes a sand-bag at a speed of 103 m/s and gets embedded after travelling 5 cm. Calculate:

- (i) the resistive force exerted by the sand on the bullet
- (ii) the time taken by the bullet to come to rest.

10. A force of 5 N produces an acceleration of 8 m/s^2 on a mass m_1 and an acceleration of 24 m/s^2 on a mass m_2 . What acceleration would the same force provide if both the masses are tied together?

11. If two masses in the ratio 3: 5 are accelerated by forces in the ratio 5 : 3 . Find the ratio of acceleration produced .

12. A Truck starting from rest rolls down a hill with constant acceleration . It travels a distance of 400m in 20 Seconds. Find its acceleration . Find the force acting on it , If its mass is 7 metric Tonnes .

13. A bullet of 10 g moving with a speed of 100 m/s penetrates a sandbag and comes to rest in $\frac{1}{10}$ th second Find:

- (i) The distance through which the bullet penetrates
- (ii) The retarding force experienced

14. Give reason

- (i) The mangoes are detached from the branch if it is shaken well
- (ii) If we Jerk out a piece of paper from under a heavy book , the book will not move

15. A dumb bell of 10 kg mass falls from a height of 0.8 m . What is the momentum transferred by the dumb bell while hitting the ground

16. A constant retarding force of 50 N is supplied to a body of 70 kg moving initially with a speed of 15 m/s. How long does the body take to stop ?

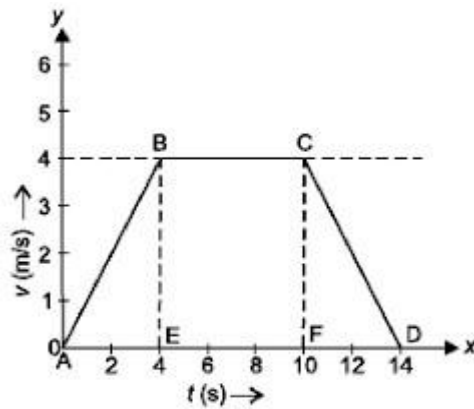
117. Explain why?

- (i) A passenger standing in a bus falls backward when the bus suddenly starts moving forward
- (ii) A passenger standing in the bus falls forward when the bus suddenly stops

18. Which would require more force. .accelerating a 10 g mass at 5 m/s or a 20 g mass at 2 m/s²

19. From the given v—t graph of a body

- a) Calculate the force on the object in the time interval 0—4s
- b) Identify the time interval in which there is no net force acting on the body



20. Define Inertia. What does it depends on? Using this property explain

- a) removing dust from hanging carpet
- b) removing water droplets from wet cloth.

SOCIAL SCIENCE(CLASS IX)

HISTORY

Short answer questions:

- 1.Mention any two developments that took place during the Early Harappan Stage.
- 2.Give two reasons why the Harappans are described as more than just agriculturists.
- 3.What was a city-state? Give one example.
- 4.Why are cuneiform tablets valuable sources for historians?
- 5.Mention any 2 similarities between Sindhu-Saraswati and Mesopotamian civilizations.

Long answer questions:

- 6.Explain the importance of the following Harappan sites: a) Harappa , (b) Kunal (c) Datrana , (d) Kalibangan
- 7.Explain the importance of ziggurats in the religious, economic and political life of Mesopotamia.
- 8.Assess the contribution of the Sumerians that continue to influence the modern world.
- 9.Discuss the role and limitations of sources in studying and reconstructing history.

ECONOMICS

ASSIGNMENT(CHAPTER-The Price Puzzle: What Drives the Market)

Q1. Explain the meaning of market in Economics.

Q2. Define the following terms:

- | | |
|---------------------|---|
| (a)Demand | (b)Individual demand and Market Demand |
| (c)Demand Curve | (d)Purchasing Power |
| (e)Related Goods | (f)Diminishing Marginal Utility. |
| (g)Supply | (h)Individual Supply and Market Supply. |
| (i)Supply Curve | (j) Market Equilibrium |
| (k) Revenue | (l) Monopoly |
| (m) Black Marketing | (n) Hoarding |
| (o)Public Goods | |

Q3. Describe the Law of Demand in detail.

Q4. Outline any five factors affecting the Demand of Goods.

Q5.Explain the law of supply in detail.

Q6. Highlight any five factors affecting the supply of goods.

Q7.With the help of diagram, Describe the concept of market equilibrium.

Q8. Market equilibrium is the point where demand equals supply. Do you think this situation exists in the real world all the time? Explain your answer with two examples from everyday life.

Q9.Define Price Ceiling. Examine its objectives and consequences.

Q10.Define Price Floor. Describe its main objectives and consequences.

Q11.Can excessive government regulation hurt markets? Explain with suitable examples.

Q12.Explain any three limitations of Government intervention in detail.

GEOGRAPHY

Q1.Describe the major relief features of the ocean floor. Explain their significance with the help of suitable examples.

Q2. Mention the features of five major oceans of the world. Explain the role of oceans in maintaining Earth's climate and supporting biodiversity.

CHEMISTRY ASSIGNMENT

Q1. State the conditions under which solids can change into liquids and liquids into gases.

Q2. Why do we see water droplets on the outer surface of a glass containing ice-cold water?

Q3. Describe the characteristics of the particles of matter. Explain with examples how they support the particulate nature of matter.

Q4. Riya observed that when camphor is kept in an open container, it slowly disappears. In another case, she saw that when water is heated, it starts boiling and changes into steam. Pl answer below:

- a) What is the name of the process by which camphor disappears? Explain why it happens.
- b) Explain how particles of matter behave in both cases.
- c) Why is it advised to keep perfumes in tightly closed bottles?

Q5. Explain how you can separate a mixture of salt, sand, and ammonium chloride.

Q6. Identify the type of mixtures: (i) milk, (ii) soda water, (iii) soil. Give reasons.

Q7. State the principle involved in the technique of chromatography. Mention one application.

Q8. Ravi was given a mixture of sand, salt, and iron filings in the school laboratory. His teacher asked him to separate all the components of the mixture.

- (a) Which separation techniques should Ravi use to separate the components?
- (b) Write the steps of the method he should follow.
- (c) What type of mixture is this? Justify your answer.

Q9. Ramesh prepared a mixture of iron filings and Sulphur powder. He heated the mixture strongly and noticed a change. Answer the following questions:

- a) What type of mixture is iron and Sulphur before heating?
- b) What is the product formed after heating?
- c) How will you prove that a chemical change has taken place?
- d) Can the product formed be separated by physical means? Why or why not?

Q10. (I) How much water should be mixed with 12 ml of alcohol to obtain 12% of alcohol? Calculate.

(II) 110 g solution of salt is present in 550 g of solution. Calculate the concentration of solution.

(III) Identify the elements in- (a) Bronze, (b) Brass

Q.11. An experiment was conducted in the lab to separate a mixture of acetone and water using a distillation apparatus. Pl answer below:

- a) What property difference is used in distillation?
- b) Which liquid will boil first, acetone or water?
- c) Why can't distillation be used for separating alcohol and water?
- d) What is the name of the liquid collected after condensation? Or
- e) State one advantage of simple distillation.

Q.12. What are Canal rays?

Q.13. On the basis of Thomson's model of an atom explain how the atom is neutral as a whole.

Q.14. Draw a sketch of Bohr's model of an atom with three shells.

Q15. Helium atom has atomic mass of 4u and has two protons in the nucleus. How many neutrons does it have?

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CLASS-IX IT Homework

Assignment Questions

1. Identify the advantages of using ICT over conventional methods in various areas in your IT notebook.
2. What are the uses of IT in Education?
3. Define KPO?
4. Make a list of areas where ICT is used.
5. List any 5 websites of the Indian government which provide IT enabled services to the people.
6. Which software is used in digital communication?
7. What is feedback and discuss its types.
8. What are the pros and cons of IT?
9. What do you understand by BPM?
10. Briefly explain the concept of E-banking and E-Commerce.

MATHS ASSIGNMENT 1

Write first 5 points of Chapter 5 summary Pg 116-117 in your geometry notebook with figures.

Do the following questions in your geometry notebook

1. Construct a triangle PQR in which PQ = 4cm, QR = 4cm and RP = 5cm. Also draw perpendicular bisector of sides PQ and QR. Name the point of intersection as O.

2. Draw a triangle ABC in which angle B = 90° and AB = 4cm and BC = 3cm. Draw perpendicular bisectors of sides AB and AC. Name the point of intersection as O.

3. Construct a triangle ABC in which angle A = 65° ; angle B = 75° and BC = 4cm. Draw perpendicular bisectors of AB and AC. Name the point of intersection as O.

4. Draw triangle ABC with AB = 5cm, angle A = 70° and angle B = 60° . Draw perpendicular bisectors of sides AB and AC. Name the point of intersection as O.

5. Draw triangle ABC with AB = 5cm, angle A = 100° and AC = 4cm. Draw perpendicular bisectors of sides AB and BC. Name the point of intersection as O.

6. Draw triangle ABC with AB = 6cm, BC = 7cm and CA = 7cm. Draw perpendicular bisectors of sides BC and AC. Name the point of intersection as O.

ASSIGNMENT 2 (Do the following work in class work register. Also write the questions and paste the graphs)

1. Draw graphs of following equations and identify their slopes and y intercepts. Also find the coordinates of points where these lines cut the y-axis

(a) $Y = 3x - 4$ (b) $2y = 6x - 11$ (c) $y = \frac{5}{2}x + 3$

2. Draw graph of $y = -\frac{1}{3}x$, $y = -\frac{1}{2}x$, $y = -x$, $y = -2x$ and $y = -3x$ on the same graph.

3. Simplify the following rational expressions (a) $\frac{3x^2 - 18x + 24}{2x^2 - 6x - 8}$: (b) $\frac{(x^2 + x - 2)(x^2 + x - 12)}{(x^2 - 2x - 3)(x^2 + 3x - 4)}$

4. Sunil went to the market to buy an aquarium for his house. He asked the shopkeeper to add some fish to it. The shopkeeper took 13 guppy fish, 18 flowerhorn fish, 12 koi fish, and 11 angel fish from the large tank he had and placed them in the aquarium that Sunil had purchased. Now, Sunil selects a fish at random.

On the basis of above information, answer the following questions:

(i) If total number of male fish in the aquarium is 36, then find the probability of selecting a female fish.

(ii) Find the probability of selecting a flowerhorn fish.

(ii) (a) Find the probability of not selecting a koi fish.

OR

(b) Find the probability of selecting neither angel fish nor flowerhorn fish.

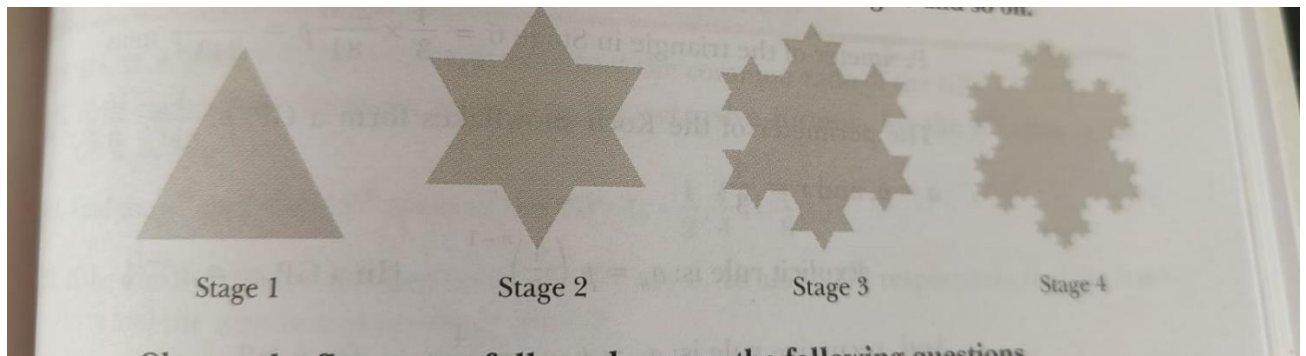
5. Your friend Veer wants to participate in a 200 m race. He can currently run that distance in 51 seconds and with each day of practice it takes him 2 seconds less. He wants to complete the race in 31 seconds.

Based on the above information answer the following questions:

(i) Write AP for the given situation.

(ii) What is the minimum number of days

6. The figure below shows Stages 1 to 4 of the Koch Snowflake fractal. Stage 1 of this fractal is an equilateral triangle. To construct Stage 2, each side of the triangle is divided into three equal parts, and the middle segment is replaced by two segments that form a small outward-pointing equilateral triangle. This creates a new figure with a star-like boundary. The same process is then repeated on every side of the new figure to obtain Stage 3 and so on.



Observe the figure carefully and answer the following questions.

(1) How many sides are there in each Stage from 1 to 4?

(ii) Obtain the number of sides in Stage 5 and Stage 6?

(iii) Find a rule for the number of sides at the n th stage. Write both the explicit formula and the recursive formula.

(iv) Suppose perimeter of the triangle in Stage 1 is p units. Find the perimeter of the snowflake in each Stage from 2 to 6. Also, write the explicit and recursive formula for the perimeter. What happens to the perimeter as the number of stages keeps on increasing

कक्षा-नवीं विषय-हिंदी

गंगा पाठ्यपुस्तक :-

प्रश्न1 पदुमलाल पुन्नालाल बख्शी द्वारा लिखित पाठ “क्या लिखूँ” का मुख्य संदेश अपने शब्दों में लिखिए।

प्रश्न2 यदि आपको किसी महत्वपूर्ण विषय पर लिखना हो तो आप किस विषय को चुनेंगे और क्यों?

प्रश्न3 "क्या लिखूँ" नामक निबंध से उपसर्ग और प्रत्यय वाले शब्द ढूंढकर अपनी उत्तर पुस्तिका में लिखिए।

प्रश्न 4 अपने परिवार के किसी बड़े सदस्य का साक्षात्कार (इंटरव्यू) लेकर लिखिए:

- पहले और आज के संवाद में क्या अंतर है?
- परिवार में संवाद क्यों आवश्यक है?

प्रश्न5 पाठ दो बैलों की कथा, क्या लिखूँ व संवादहीन से 5-5 मुहावरे अर्थ सहित लिखिए तथा प्रत्येक मुहावरे का एक-एक वाक्य बनाइए।

प्रश्न6 सूर्यकांत त्रिपाठी निराला द्वारा लिखित कविता "भारति जय विजयकरे!" कंठस्थ कर तथा अपनी उत्तर पुस्तिका में लिखकर अपने शब्दों में अर्थ स्पष्ट कीजिए।

कक्षा - नवमी

विषय - संस्कृत

दिवस -1.

पाठ - 3

क. प्रश्न संख्या 1,2,4, एवं 8, को अपनी उत्तर पुस्तिका में सम्यक्तया लिखकर, पाठ में आए हुए "क्तवतु प्रत्यय" से युक्त वाक्यों का संग्रहण कर 10 अन्य वाक्यों की रचना करें।

दिवस-2.

क. पाठ संख्या 4 के 1,2,5,6, एवं 7 के प्रश्न उत्तरों को अपने उत्तर पुस्तिका में उत्तमता से लिखकर, पाठ में विद्यमान अव्यय पदों का संग्रह कर 10 वाक्यों की रचना करें।