

CLASS IX
SUBJECT- ENGLISH
WRITING

1. While visiting JantarMantar, you came across many children outside the monument with begging bowls in their hands. You are shocked and disgusted at this sight. Make a diary entry in about 100 words.
2. Rakesh was caught missing the class and playing in the ground. What happened thereafter? Write in a paragraph.
3. Write an article on "An Ideal Student".
4. Write an article on "Importance of Girl Child Education".

GRAMMAR

1. A brief note on Will, Would, Shall, Should, Can, Could, Used to.
2. Use of Passive in News Paper: 20 Examples.
3. Subject – Verb Agreements: 10 Rules with Examples.
4. Reported Speech: Interrogatives and Imperatives

LITERATURE:

Read the following chapters and note down the difficult words.

1. My childhood
2. Packing
3. Reach for the Top
4. The Bond of Love

SUBJECT- HINDI

१. कीचड़ का काव्य पाठ के प्रश्नोत्तर लिखो।
२. एक फूल की चाह कविता के प्रश्नोत्तर लिखो।
३. अनुच्छेद लिखो –
 - क. त्योहारों का जीवन में महत्त्व
 - ख. मधुरवाणी
 - ग. भारत की प्रमुख समस्याएँ
 - घ. साहस
 - ङ. इंटरनेट
 - च. बढ़ती जनसंख्या
 - छ. सच्ची मित्रता
४. पत्र लिखो–
 - क. पिताजी को
 - ख. अपनी दादी को

- ग. अपने मित्र को
५. दृश्य-वर्णन — कोई तीन दृश्य
६. संवाद लिखो –
- क. दादी-पोते के बीच
- ख. पिता-पुत्र के बीच
- ग. महिला और सब्जीवाला
७. विज्ञापन बनाओ –
- क. एशियन पेंट
- ख. बिरला सिमेंट
- ग. कलम
- घ. हिंदी पत्रिका
८. संधि करो – २० शब्द
९. संधि विच्छेद करो– २० शब्द
१०. हामिद खाँ कहानी को पढ़कर प्रश्नों के उत्तर लिखो ।

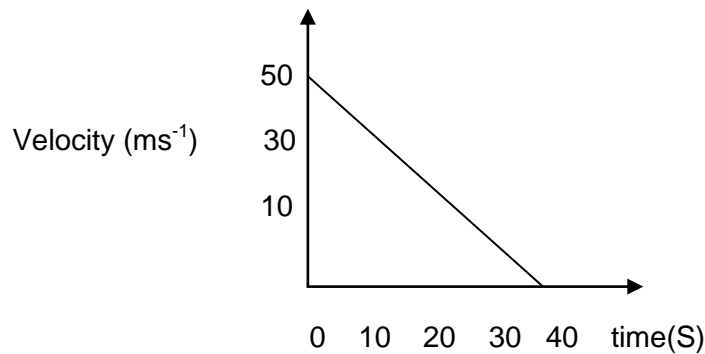
SUBJECT- ODIA

- Write all the Question's answer of lesson
- (1) Manishabhai.
- (2) Hee mora kalama .
- (3) Prakrutabandhu.
- (4) Bamanarahata O'aakasarachandra.
- (5) Patakauttolana.
- (6) Durapahada.
- Write grammar portion- Sandhi (All types of sandhi -Swara sandhi ,
Byanjana sandhi ,Bisarga sandhi)Samasha (All types of samasha -Tatpurusa
,Karmadharaya ,Dwanda ,Digu ,Bahubree ,Abayeebhaba)Krudanta with all
examples.
- Write Essay-
- (1) Sadhuta O' Kartabyaparayanata .
- (2)Chaali najanee baataradosha .
- (3)Jibanee pathara aabasyakata .
- (4)Bharata ra simanta samasyaa.
- (5)Manaba sebaree bigyaana .
- (6)Naitikasikhya.

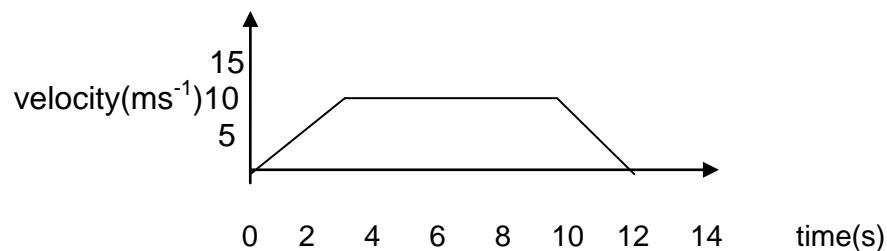
SUBJECT- PHYSICS

1. Seat belts in cars are called safety belts. Why?
2. What do you mean by acceleration due to gravity?
3. A runner presses the ground with his feet before he starts his run. Identify action and reaction in this situation.
4. Why does the weight of a body vary from poles to equator?
5. What is the numerical ratio of average velocity to average speed of an object moving along a straight line path?
6. A particle is moving in a circle of diameter 5m. What is its displacement when it covers one and half revolutions?
7. Is it possible that the train in which you are sitting appears to move while it is at rest?
8. Define (a) average speed and (b) average velocity
9. State the name of the force which is responsible for the formation of tides in the sea.
10. A runner presses the ground with his feet before he starts his run. Identify action and reaction in this situation.
11. An athlete always runs some distance before taking a jump. Why?
12. A heavy and a light object have same momentum. Which of these is travelling faster?
13. Two objects of masses m_1 and m_2 are dropped in vacuum from a height above the surface of earth (m_1 is greater than m_2). Which one will reach the ground first and why?
14. Why does the weight of a body vary from poles to equator?
15. A stone thrown up vertically returns to the thrower after 6s. find
 - a. The velocity with which it was thrown up.
 - b. The maximum height it reaches.
16. A bullet of mass 10g travelling horizontally with a velocity of 150ms^{-1} strikes stationary wooden block and comes to rest in 0.03s. Calculate the distance of penetration of bullet into the block. Also calculate the magnitude of force exerted by the wooden block on the bullet.
17. State Universal law of Gravitation. How does the gravitational force of attraction between two bodies change when the distance between them is reduced to half?
18. Derive the relation between g and G .

19. A ball is gently dropped from a height of 20m. If its velocity increases uniformly at the rate of 10ms^{-2} , with what velocity will it strike the ground?
After what time will it strike the ground?
20. (a) What can be depicted from the graph regarding the motion of the object?
(b) find the value of acceleration from the graph.



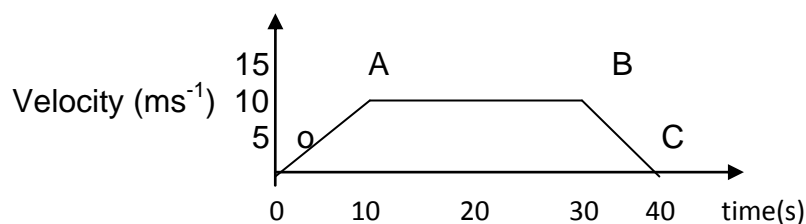
21. Find the displacement of a body whose velocity time graph is shown below:



22. A bullet of mass 10g travelling horizontally with a velocity of 150ms^{-1} strikes stationary wooden block and comes to rest in 0.03s. Calculate the distance of penetration of bullet into the block. Also calculate the magnitude of force exerted by the wooden block on the bullet.
23. A force of 2N acting on a body changes its velocity uniformly from 2ms^{-1} to 5ms^{-1} in 10s. Calculate the mass of the body.
24. A boy of mass 50kg running 5ms^{-1} jumps on to a 20kg stationary trolley. Find their common velocity.
25. Define Newton's second law of motion. How would you arrive at a mathematical formula to measure force using second law of motion?
26. Find the displacement of a body whose velocity time graph is shown below:



27. The velocity time graph of a body is shown below:
- State the kind of motion represented by OA and AB
 - What is the acceleration for BC
 - Find the distance travelled between 10th and 30th second.



SUBJECT- CHEMISTRY

Using Symbol and Valence given to you write the chemical formulae for the followings

- Zinc oxide
- Aluminium chloride
- Calcium sulphide
- Sodium carbonate
- Magnesium nitrate
- Barium sulphate
- Potassium sulphate
- Ammonium phosphate
- Silver nitrate
- Ferrous chloride
- Aluminium phosphate
- Calcium bicarbonate
- Aluminium oxide
- Potassium carbonate
- Zinc chloride
- Lead(II) nitrate
- Silver bromide
- Sodium sulphite
- Magnesium oxide
- Barium chloride
- Ferric sulphate
- Mercury(II) oxide
- Copper(II) carbonate
- Ferrous sulphate

25. Iron(II)sulphide

Write the name of the compounds whose chemical formulae are given below.

1) $Zn_3(PO_4)_2$ 2) $Al_2(CO_3)_3$ 3) K_2SO_4 4) NH_4NO_3 5) $Ca(OH)_2$ 6) FeS 7) $PbCO_3$ 8) Ag_2O

9) $BaSO_4$ 10) $NaHCO_3$ 11) $Fe(NO_3)_3$ 13) Na_2SO_3

IONS- Atoms or clusters of atoms carrying charge on them are called ions. Ions may be positive (for metals) or negative(for non metals)

EXAMPLES-

Sodium ion- Na^+ , Calcium ion- Ca^{2+} , Aluminium ion- Al^{3+} , Chloride ion- Cl^- , Oxide ion- O^{2-} , Nitride ion- N^{3-} (Valence number of positive or negative charge)

Now write to represent the following ions.

1. Calcium ion
2. Potassium ion
3. Sulphide ion
4. Bromide ion
5. Ferric ion
6. Copper(II)ion

Q1. What is mole?

Q2. Write law of conservation of mass.

Q3. Write law of constant proportion.

Q4. Write Dalton's Atomic theory.

Q.5. Find the molecular mass for the followings,

a) NH_3 b) $Ca_3(PO_4)_2$ c) $Al(NO_3)_3$ d) K_2CO_3 [N-14u,H-1u,Ca-40u,O-16u,Al-27u,C-12u, K-39u]

Q6. Convert the followings to mole.

a) 9.8g of H_2SO_4 b) 25g of HNO_3 c) 50g of Al_2O_3

Q7. Find the mass in gram for the followings.

a) 5mole of $Al(NO_3)_3$ b) 10 mole of K_2CO_3 c) 0.2 mole of $Ca_3(PO_4)_2$

Q8. How many molecules are there in 3.6 g of H_2O ?

Q9. Find the mass of one carbon atom in gram.

A. Read your text book chapter 1,2,3 thoroughly and then write exercise questions from each chapter.

B. Read the chapter " structure of the atom" from your text book and write the answer of the exercise questions.

SUBJECT- MATHS

CHAPTER 9: AREAS OF PARALLELOGRAMS AND TRIANGLES (EXERCISE 9.1 TO 9.3 to be completed)

Q(1) What is the nature of the number $(-5 + 2\sqrt{5} - \sqrt{5})$

Q(2) Find the factors of the expression $xy + yz + ax + az$.

Q(3) Find the coordinates of the point whose abscissa is 2 and which lies on the X-axis

Q(4) What is the equation of y axis?

Q(5) In ΔABC , if $\angle A > \angle B$ then find the relation between the sides BC and AC.

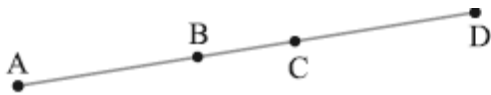
Q(6) Two opposite angles of a parallelogram are $(3x - 2)^\circ$ and $(50 - x)^\circ$ then find the measure of each angle of the parallelogram.

Q(7) Factorise $7\sqrt{2}x^2 - 10x - 4\sqrt{2}$

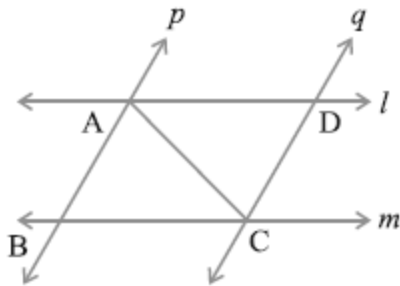
Q(8) Find four rational numbers between $\frac{1}{2}$ and $\frac{2}{3}$.

Q(9) Prove that a diagonal of a parallelogram divides it into two congruent triangles.

Q(10) In the figure if $AB = CD$, show that $AC = BD$. State the axiom used for the same.

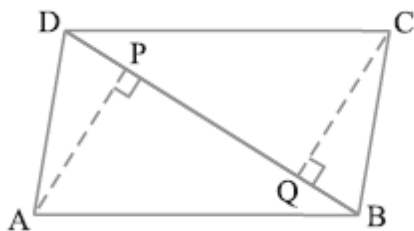


Q(11) L and M are two parallel lines intersected by another pair of parallel lines p and q. Show that $\Delta ABC \cong \Delta CDA$



Q(12) Plot these points on cartesian plane. $(3, -2)$ $(-1, -4)$

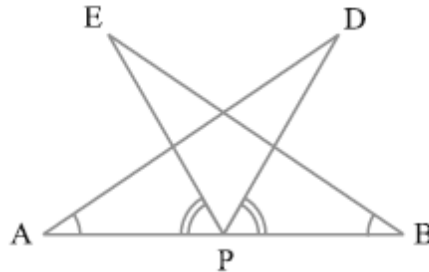
Q(13) ABCD is a parallelogram and AP and CQ are perpendiculars from vertices A and C on diagonal BD. Show that $\Delta APB \cong \Delta CQD$.



Q(14) Represent $\sqrt{3}$ on the number line.

Q(15) Find the value of 'a' and 'b' in the equation $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a + b\sqrt{3}$

Q (16) AB is a line segment and P is its mid point. D and E are points on the same side of AB , such that $\angle BAD = \angle ABE$ and $\angle EPA = \angle DPB$. Show that $\Delta DAP \cong \Delta EBP$.

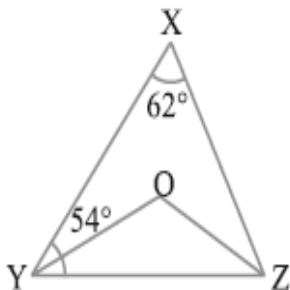


Q(17) Prove that the sum of all angles of a triangle is 180.

Q (18) If the polynomial $2x^3 + ax^2 + 3x - 5$ and $x^3 + x^2 - 2x + a$ leave the same remainder, when both are divided by $x - 2$, then find the value of a. Also find the remainder in each case.

Q.(19) Prove that an equilateral triangle can be constructed on any given line segment.

Q (20) In the given figure $\angle X = 62^\circ$, $\angle XYZ = 54^\circ$. If YO and ZO are the bisectors of $\angle XYZ$ and $\angle XZY$, respectively of ΔXYZ , then find $\angle OZY$ and $\angle YOZ$.

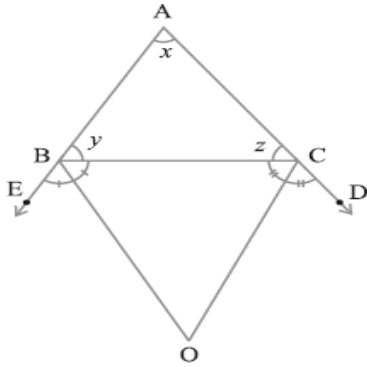


Q (21) Solve the equation $2x + 1 = x - 3$, and represent the solution on (i) the number line and (ii) on the Cartesian plane.

Q (22) Divide the polynomial $3x^3 - 4x^2 - 3x - 1$ by $x - 1$

Q (23) Factorise $27p^3 - \frac{1}{216} - \frac{9}{2}p^3 + \frac{1}{4}p$

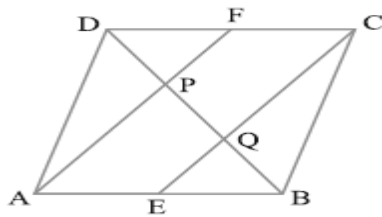
Q (24) Simplify :) In the given figure the sides AB and AC of ΔABC are produced to points E and D respectively. If bisectors BO and CO of $\angle CBE$ and $\angle BCD$ respectively meet at point O, then prove that $\angle BOC = 90 - \frac{1}{2} \angle BAC$



Q (25) Prove that $x^3 + y^3 + z^3 - 3xyz = \frac{1}{2} (x + y + z) [(x-y)^2 + (y-z)^2 + (z-x)^2]$

Q (26) Yamini and Fatima two students of class IX of a school contributed Rs. 100 towards the Prime Minister Relief Fund to help the earthquake victims. Write a linear equation which satisfy this data. Draw the graph of the same.

Q (27) In a parallelogram ABCD, E and F are the mid- points of sides AB and CD respectively. Show that the line segment AF and EC trisect the diagonal BD.



Q (28) (a) Visualise $4.\overline{26}$ on the number line, up to 4 decimal places.

(b) Evaluate $(102)^3$ using suitable identity.

Q (29) (a) Show that the diagonals of rhombus are perpendicular to each other.

(b) Write any two Euclid's postulates.

Q (30) State and prove converse of Mid- Point theorem

SUBJECT- BIOLOGY

1. State the characteristic features of Plant Tissue (Parenchyma, Collenchyma & Sclerenchyma)
2. State the characteristic features of Animal Tissues (Striated Muscle fibre and Nervous Tissues)
3. Write down the characteristic and their adaptive features of earthworm, cockroaches, bony fish and bird.
4. Write down the characteristic feature and their adaptive features of Spirogyra, Fern, Cone, Mushroom and Dicot Plant.
5. Explain the life cycle of Mosquito.

6. How you will perform the starch test and Metanil Yellow Test in Legumes (Dal)?
7. How do we classify organism?
8. What do you mean by evolution?
9. Who wrote the book origin of species and when?
- 10.State any three important features of Kingdom Monera.
- 11.Draw the flow chart of 5 Kingdom Classification.
- 12.Draw the diagrams of Kingdom fungi (Text Book).

SUBJECT- HISTORY & CIVICS

1. What are the important causes of the Russian Revolution ?
2. Who were the Liberals, Radicals and Conservatives?
3. Explain the February Revolution of 1917 ?
4. Who were the Reds, the Greens and the Whites ?
5. What steps were taken in Russia after the Russian Revolution of 1917 to make Russia a Socialist State ?
6. What were the features of Collectivisation of Stalin ?
7. What were the Global influence of the Russian Revolution ?
8. What were the Global impacts of the French Revolution ?
9. What are the different types of elections ?
10. What are the importance of election in Democracy ?
11. What are the positive impacts of Political Competition ?
12. What makes an election Democratic ?
13. What are the outcome of the India's elections ?
14. What are the challenges to free and fair elections in India ?
15. What are the role played by the opposition party in our Democracy ?

SUBJECT- GEOGRAPHY

- Q1.Define the terms- Weather, Climate, Monsoon.
- Q2.What are the elements of weather and climate?
- Q3.Mention the six major climatic controls of any place.
- Q4.What are the factors affecting India's climate?
- Q5.Explain the terms-Coriolis force, Jet stream, Western cyclonic disturbance, ITCZ, EL Nino.
- Q6. On an outline map of India, show advancing of Monsoon (Pg.no-32). Retreating Monsoon (Pg.no-34). Annual rainfall (Pg.no-37).
- Q7. What do you mean by Poverty? Mention the conditions of a poverty ridden person.

Q8. How social scientists define the poverty?

Q9. Mention the causes of poverty.

Q10. What are the Anti-Poverty Measures taken by govt. of India?

SUBJECT- FOUNDATION OF IT

Q1. What do you mean by protocols?

Q2. Write about HTTP,FTP,SMTP,POP,VoIP.

Q3. What is Cloud computing? Differentiate private and public Cloud.

Q4. What do you understand by multimedia?

Q5. Describe the Chat sites and social networks.
