SANT NISCHAL SINGH PUBLIC SCHOOL
LADWA

CLASS - IX

SUMMER HOLIDAY HOMEWORK

ACADEMIC SESSION
2023-24

★ **Art Integrated Activity**

Prepare a PPT of 10-15 slides on *TWO* true geniuses of Manipur

★ **Art Integrated Project:** **Location of Manipur and Haryana**

General Instructions for class

The project needs to be developed and presented in this order.

a) Handwritten/ Type cover page showing project title, student's name, class, section, school's name and academic year.

b) Index page should include names of the subjects, page no. and a column for teacher's sign

c) Acknowledgements (acknowledging the institutions and persons who have helped).

d) The work is to be done in the given sequence only

e) Page limits (for each subject); Minimum 3 Maximum no limits excluding cover page, index page and acknowledgement page

f) Google text to be avoided.

g) Make a report at the end of each project.

Social Science

Topic-Prepare a Project on Disaster Management and collect information about the disaster Occured in Manipur and Haryana

Maths

Topic- Collect the data of temperature for capital of Manipur and Haryana in the month of June and draw the frequency Polygon to compare the climate conditions of both the states.

Science

Topic- 1.Important Mineral resources

2. Agriculture Practices (Organic and inorganic farming)
3. Rivers, Irrigation and hydro electric power plants

Hindi

*उत्तर पूर्वी राज्य मणिपुर के दर्शनीय स्थलों और हरियाणा के दर्शनीय स्थलों का तुलनात्मक अध्ययन करते हुए एक परियोजना तैयार कीजिए।

Information Technology

Make a document with the help of Digital Documentation on given Topic:

1. Manipur Famous Personalities

2. Manipur Classical and Folk Dance

Take the print out of documents and paste in your project file

English

Prepare an itinerary from Ladwa to Imphal.

Note: You have to make five different project files

Homework For Revision

Do five unseen comprehension passages of module 1 from BBC Compact.

Write and prepare some topics given below for speaking activity.

2. Should Art be a part of school curriculum?(Roll no1-5)
3. My favorite fictional character (Roll no 6-10)
4. Importance of extra curriculum activities(Roll no 11-15)
5. How to tackle bullying in schools(Roll no 16-20)
6. Why books are better than movies?(Roll no 21-25)
7. Music has a healing power(Roll no 26-30)
8. If I had a super power(Roll no 31- 38)

Science

Do the assignments in your registers given at the back of the Holiday homework

Art and Craft

- Two landscapes-(Pencil colours, 1 with pencil shading)
- Two animals(pencil colours)
- Two still life(Pencil shading)
- Two nature study(1 with water colour, 1 with oil Pastal colour)
- Frhits (colored 1 sheet)

Physical Education

★ In athletics draw and explainTrack and field event

★ In Team games, explain any game and draw the same

★ In yoga, draw and explain any 10 postures

Maths

Do the assignments in your registers given at the back of the Holiday homework

Chapter-motion

1. A particle is moving in a circle of diameter 5m. Calculate the distance covered an the displacement when it competes 3 revolutions.

2. A body thrown vertically upwards reaches a maximum height 'h'. It then returns t ground. Calculate the distance travelled and the displacement.

3. A body travels a distance of 15m from A to B and then moves a distance of 20m a right angles to AB. Calculate the total distance travelled and the displacement.

4. An object is moving in a circle of radius 'r'. Calculate the distance and displacemer (i) when it completes half the circle (ii) when it completes one full circle.

5. An object travels 16m in 4s and then another 16m in 2s. What is the average spee of the object?

6. Vishnu swims in a 90m long pool. He covers 180m in one minute by swimming fror one end to the other and back along the same straight path. Find the average spee and average velocity of Vishnu.

7. In along distance race, the athletics were expected to take four rounds of the trac such that the line of finish was same as the line of start. Suppose the length of th track was 200m.

   (a) What is the total distance to be covered by the athletics?

   (b) What is the displacement of the athletics when they touch the finish line?

   (c) Is the motion of the athletics uniform or non-uniform?

   (d) Is the displacement of an athletic and the distance covered by him at the end c the race equal?

8. Starting from a stationary position, Bhuvan paddles his bicycle to attain a velocity c 6m/s in 30s. Then he applies brakes such that the velocity of bicycle comes down t 4m/s in the next 5s. Calculate the acceleration of the bicycle in both the cases.

9. Amit is moving in his car with a velocity of 45km/hr. How much distance will he cove (a) in one minute and (b) in one second.

10. The odometer of a car reads 2000 km at the start of a trip and 2400km at the end c the trip. If the trip took 8 hr, calculate the average speed of the car in km/hr and m/s

11. An electric train is moving with a velocity of 120km/hr. How much distance will move in 30s?

12. A body is moving with a velocity of 15m/s. If the motion is uniform, what will be th velocity after 10s?

13. A train travels some distance with a speed of 30km/hr and returns with a speed c 45km/hr. Calculate the average speed of the train.

14. A train 100m long moving on a straight level track passes a pole in 5s. Find

(a) the speed of the train

(b) the time it will take to cross a bridge 500m long.

15. A car travels along a straight line for first half time with speed 40km/hr and th second half time with speed 60km/hr. Find the average speed of the car.

16. A body starts rolling over a horizontal surface with an initial velocity of 0.5m/s. Du to friction, its velocity decreases at the rate of 0.05m/s^2. How much time will it tak for the body to stop?

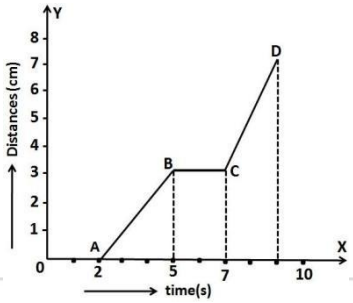
17. A car traveling at 36km/hr speeds upto 70km/hr in 5 seconds. What is it acceleration? If the same car stops in 20s, what is the retardation?

18. A scooter acquires a velocity of 36km/hr in 10seconds just after the start. It takes 2 seconds to stop. Calculate the acceleration in the two cases.

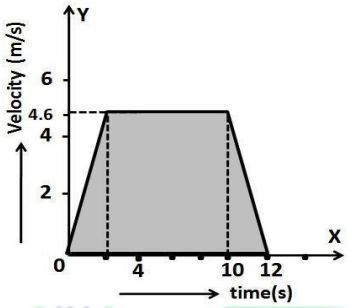
19. On a 120km track, a train travels the first 30 km at a uniform speed of 30 km/hr. Hov fast must the train travel the next 90 km so as to average 60 km/hr for the entire trip

20. A train travels at 60 km/hr for 0.52 hr; at 30 km/hr for the next 0.24 hr and at 7 km/hr for the next
0.71 hr. What is the average speed of the train?

21.The graph in below figure shows the positions of a body at different times. Calculate the speed of the body as it moves from (i) A to B (ii) B to C and (iii) C to D.



22.The velocity time graph of an ascending passenger lift is given below. What is the acceleration of the lift: (i) during the first two seconds (ii) between 2nd and 10th second (iii) during the last two seconds.



23. A body is moving uniformly with a velocity of 5m/s. Find graphically the distance travelled by it in 5 seconds.

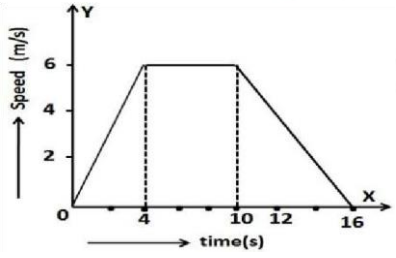
24. Study the speed-time graph of a body shown in below figure and answer the following questions: (a) What type of motion is represented by OA? (b) What type of motion is represented by AB?

(c) What type of motion is represented by BC?

(d) Calculate the acceleration of the body.

(e) Calculate the retardation of the body.

(f) Calculate the distance travelled by the body from A to B.



25. In the above question, calculate (i) distance travelled from O to A (ii) distanc travelled from B to C. (iii) total distance travelled by the body in 16 sec.

26. A body is accelerating at a constant rate of 10m/s^2. If the body starts from rest, hov much distance will it cover in 2 seconds?

27. An object undergoes an acceleration of 8m/s^2 starting from rest. Find the distanc travelled in 1 second.

28. A moving train is brought to rest within 20 seconds by applying brakes. Find the initi velocity, if the retardation due to brakes is 2m/s^2.

29. A car accelerates uniformly from 18km/h to 36 km/h in 5 seconds. Calculate (acceleration and (ii) the distance covered by the car in that time.

30. A body starts to slide over a horizontal surface with an initial velocity of 0.5 m/s. Du to friction, its velocity decreases at the rate of 0.05 m/s^2. How much time will it tak for the body to stop?

31. A train starting from the rest moves with a uniform acceleration of 0.2 m/s^2 for minutes. Calculate the speed acquired and the distance travelled in this time.

32. A bus was moving with a speed of 54 km/h. On applying brakes, it stopped in seconds. Calculate the acceleration and the distance travelled before stopping.

33. A motor cycle moving with a speed of 5 m/s is subjected to an acceleration of 0. m/s^2. Calculate the speed of the motor cycle after 10 seconds and the distanc travelled in this time.

34. The brakes applied to a car produce an acceleration of 6 m/s^2 in the opposit direction to the motion. If the car takes 2 seconds to stop after the application c brakes, calculate the distance it travels during this time.

35. A train starting from rest attains a velocity of 72 km/h in 5 minutes. Assuming tha the acceleration is uniform, find (i) the acceleration and (ii) the distance travelled b the train for attaining this velocity.

36. Calculate the speed of the tip of second's hand of a watch of length 1.5 cm.

37. A cyclist goes once round a circular track of diameter 105m in 5 minutes. Calculat his speed.

38. A cyclist moving on a circular track of radius 50m complete revolution in 4 minute What is his (i) average speed (ii) average velocity in one full revolution?

39. The length of minutes hand of a clock in 5 cm. Calculate its speed.

40. A car starts from rest and moves along the x-axis with constant acceleration 5m/s for 8 seconds. If it then continues with constant velocity, what distance will the ca cover in 12 seconds since it started from the rest?

Ch-Matter in our surroundings

Q1. Is there any similarity in materials?

Q2. When 50 g of sugar is dissolved in 100 mL of water, there is no increase in volume. What characteristic of matter is illustrated by this observation?

Q3.What happens when an inflated air balloon is pricked with a pin? Name the property of the gaseous state exhibited by this observation.

Q4.Name the process which occurs when a drop of dettol is added to water.

Q5.To which physical state of matter do the following statements apply?

(i) Incompressible, no fixed shape

(ii) Compressible, no definite volume

Q6.Name the state of matter in which:

(i) Layers of particles can slip and slide over one another easily.

(ii) Particles just move around randomly because of very weak force of attraction.

Q7.Define density and give its SI unit.

Q8.In which of the following, the particles have highest forces of attraction?

Water, NaCl (solid), ice or, wax.

Q9.why do the gases exert more pressure on the walls of the container than the solids?

Q10.Which of the following diffuses faster?

Water vapour, wax or, ethyl alcohol.

Q11.Why do we see water droplets on the outer surface of a glass containing ice cold water?

Q12.Can materials exist in all the three states?

Q13.Can a rubber band change its shape on stretching? Is it a solid?

Q14.Which gas is called dry ice? Why?

Q15.Why do wet clothes dry quickly in the sun than in the shade?

Q15.Why do trees acquire more leaves during summer?

Q16.Why do we feel comfortable under a fan when we are perspiring?

Q17.Why do people sprinkle water on the roof after a hot sunny day?

Q18. Explain interconversion of three states of matter with the help of flow chart. Name the process of each interconversion.

Q19. Write differences between evaporation and Boiling.(any 5)

Q20.. Convert the following temperature to Celsius scale:

i) The temperature is 300 K.

Q21.What is the physical state of water at:

(a) A temperature of 250 ^{o}C

(b) A temperature of 100 ^{o}C

Q22.Suggest a method to liquefy atmospheric gases.

Q23.What is diffusion? Give examples.

Q24. What happen to the rate of diffusion if the temperature is increased?

Q25. Name the state of matter that have the tendency to maintain their shape when subjected to outside force.

Q26.Define melting point.

Q27. Define boiling point.

Q28. Define latent heat of vaporization.Give example.

Q29. What do you understand by the term 'latent heat of fusion'? How much is the latent heat of fusion of ice?

Q30. Suggest an activity to show that the rate of diffusion of liquids decreases with increase in density of the liquid.

Q31.What is humidity?

Q32.Write the Properties of solids, liquids and gases .

Q33. What will happen if the pressure is reduced on solid carbon dioxide (dry ice)?

Q34. Give two ways in which melting points and boiling points can be useful.

Q35. Alka was making tea in a kettle. Suddenly she felt intense heat from the puff of steam gushing out of the spout of the kettle. She wondered whether the temperature of the steam was higher than that of the water boiling in the kettle. Comment

Q36.What is normal atmospheric pressure?

Q37.Write differences between solid liquid and gases on the basis of their properties.

Q38. Give the temperature at which water exists in two different phases/states.

Q39. Why do we see water droplets collected on the outer surface of a glass container, containing ice?

Q40. Explain why water vapour present in air, comes in contact with the cold outer surface of the container thereby condensing it to form water droplets.

Q41. Why steam at 100°C is better for heating purposes than water at 100°C?

Q42.Balloon when kept in sun, bursts after some time. Why?

Q43.Why do people perspire a lot on a hot humid day?

Q44.Cotton is solid but it floats on water. Why?

Q45. Name and explain the factors that affect evaporation.with example.

Q46.What happens when you pour some acetone on your palm ?

Q47.How is heating of sugar different from heating of ammonium chloride ? Explain your answer.

Q48. When a crystal of potassium permanganate is placed in a beaker containing water, its purple colour spreads throughout the water. What do you conclude from this observation about the nature of potassium permanganate and water?

Q49.Explain sublimation process with activity.

Q50.List any two properties of liquids which are common to gases.

Chapter - Fundamental unit of life

1. An outer membrane found in the animal cell is

A. Cell membrane B. Cell wall
C. cytoplasm D. nuclear membrane

2. Why does the skin of our fingers shrink when you wash clothes for a long time?

3. Why is endocytosis found in animal cell only?

4. If cell of onion peel and RBC are separately kept in hypotonic solution, what will happen? Explain the reason for your answer.

5. Draw a well labelled diagram of a Eukaryotic nucleus. How is it different from nucleoid?

6. What is the cell wall in plant cell made up of?

7. What is plasma membrane composed of?

8. What is the outermost layer found in the plant cell is it living or Dead?

9. How does absorption of water in roots take place?

10. State any two functions of cell wall?

11. Differentiate between unicellular and multicellular organism?

12. Differentiate between cell wall and plasma membrane.

13. What would happen if a deshelled boiled egg and shelled raw egg are placed in plane water?

14. Which instrument is used for studying the cells?

15. Explain the contribution of following scientists?

A) Robert Hooke C) Leeuwenhoek

B) Robert Brown D) J. E. Purkinje

CHAPTER 1 (NUMBER SYSTEM) MCQ

1. Can we write 0 in the form of p/q?
a. Yes b. No c. Cannot be explained d. None of the above

2.) The three rational numbers between 3 and 4 are:
a. 5/2,6/2,7/2 b. 13/4,14/4,15/4 c. 12/7,13/7,14/7 d.11/4,12/4,13/4

3.) In between any two numbers there are:
a. Only one rational number b. Many rational numbers
c. Infinite rational numbers d. No rational number

4.) Every rational number is :
a. Whole number b. Natural number
c. Integer d. Real number

5.) √9 is a _____ number.
a. Rational b. Irrational c. Neither rational or irrational d. None of the above

6.) Which of the following is an irrational number?
a. √16 b. √(12/3) c. √12 d. √100

7.) 3√6 + 4√6 is equal to:
a. 6√6 b. 7√6 c. 4√12 d. 7√12

8.) √6 x √27 is equal to:
a. 9√2 b. 3√3 c. 2√2 d. 9√3

9.) Which of the following is equal to x^3?
a. x^6-x^3 b. $x^6.x^3$ c. x^6/x^3 d. $(x^6)^3$

10.) Which of the following are irrational numbers?
a. √23 b. √225 c. 0.3796 d. 7.478478

11) $\sqrt[4]{\sqrt[3]{3^2}}$ equals

a) $3^{\frac{-1}{6}}$ b) $3^{\frac{1}{6}}$ c) 3^{-6} d) 3^{6}

12.) The product of a rational and an irrational numbers is:
a) Always an integer b) Always a rational number
c) Always an irrational number d) Sometimes rational and sometimes irrational

13.) A rational number between √2 and √3:
a) 1.9 b) (√2. √3)/2 c) 1.5 d) 1.8

14.)Which of the following is irrational?

a) $\sqrt{\frac{4}{9}}$ b) $\frac{\sqrt{12}}{\sqrt{3}}$ c) $\sqrt{5}$ d) $\sqrt{81}$

15.) 4√5 + 5√5 is equal to:
a) 9√5 b) 9√10 c) 5√10 d) 7√5

16.) Which of the following is irrational? A) 0.4014001400014……..

a) 0.4014001400014...

b) 0.14

c) $0.\overline{1416}$

d) $0.14\overline{16}$

17.)√12 X √15 is equal to:
a) 5√6 b) 6√5 c) 10√5 d) √25

18.) Which of the following is equal to *x* ?

a) $x^{\frac{12}{7}} - x^{\frac{5}{7}}$ b) $\sqrt[12]{(x^4)^{\frac{1}{3}}}$ c) $\left(\sqrt{x^3}\right)^{\frac{2}{3}}$ d) $x^{\frac{2}{4}} X\, x^{\frac{6}{4}}$

19.) The value of $\sqrt[4]{(16)^{-2}}$ is :
a) ¼ b) ½ c) 4 d) 1/16

20.) In between two rational number there is/are:
a) Exactly one rational number b) Infinitely many rational number
c) Many irrational numbers d) Only irrational numbers

21.) What would be the denominator after rationalizing 7/(5√3 – 5√2)?
a) 19 b) 20 c) 25 d) None of these

22.) The decimal expansion of an irrational number may be:
a) Terminating b) Either terminating or non- terminating
c) Recurring d) Non-terminating and non-recurring

23.) If $\sqrt{3}$ = 1.732 , then $\sqrt{\frac{\sqrt{3}-1}{\sqrt{3}+1}}$ equals to

a) 2.732 b) 0.2679 c) 0.732 d) 0.517

24.) Value of $(256)^{0.16}$ X $(256)^{0.09}$ is:
a) 4 b) 16 c) 64 d) 256.25

CHAPTER 2 (POLYNOMIALS) MCQ

1) x^2-2x+1 is a polynomial in:
a. One Variable b. Two Variables c. Three variable d. None of the above

2) The coefficient of x^2 in $3x^3+2x^2-x+1$ is:
a. 1 b. 2 c. 3 d. -1

3) A binomial of degree 20 in the following is:
a. 20x + 1 b. x/20 + 1 c. x^{20} +1 d. x^2+20

4) The degree of $4x^3-12x^2+3x+9$ is
a. 0 b. 1 c. 2 d. 3

5) x^2 – x is _____ polynomial.
a. Linear b. Quadratic c. Cubic d. None of the above

6) x – x^3 is a _____ polynomial.
a. Linear b. Quadratic c. Cubic d. None of the above

7) 1+3x is a _____ polynomial.
a. Linear b. Quadratic c. Cubic d. None of the above

8) The value of $f(x) = 5x-4x^2+3$ when x = -1, is:
a. 3 b. -12 c. -6 d. 6

9) The value of $p(t) = 2+t+2t^2-t^3$ when t=0 is
a. 2 b. 1 c. 4 d. 0

10) The zero of the polynomial f(x) = 2x+7 is
a. 2/7 b. -2/7 c. 7/2 d. -7/2

11) A polynomial with one degree is called:
a) Linear polynomial b) Quadratic polynomial
c) Monomial d) Binomial

12) Which one of the following is a polynomial?

a) $\sqrt{2x}-1$

b) $\frac{x-1}{x+1}$

c) $x^2+\frac{3x^{\frac{3}{2}}}{\sqrt{x}}$

d) $\frac{x^2}{2}-\frac{2}{x^2}$

13) √3 is a polynomial of degree:
a) 2 b) 0 c) 1 d) 1/2

14) Degree of the polynomial $7x^5 + 8x^2 – 5x + 3$ is:
a) 1 b) 3 c) 2 d) 5

15) What is the degree of a zero polynomial?
a) 0 b) 1 c) Any natural number d) Not defined

16) The value of the polynomial $7x^4 + 3x^2 – 4$, when x = – 2 is:
a) 100 b) 110 c) 120 d) 130

17) The zero of the polynomial p(x) = -9x + 9is:
a) 0 b) -9 c) -1 d) 1

18) √12 X √15 is equal to:
a) 5√6 b) 6√5 c) 10√5 d) √25

19) If $y^{97} + 97$ is divided by y + 1, the remainder is:
a) 0 b) 1 c) 95 d) 96

20) If x + 1 is a factor of the polynomial $2x^2 + kx$, then the value of k is:
a) -3 b) 4 c) 2 d) -2

21) The value of $99^2 - 98^2$ is:
a) 1 b) 197 c) 187 d) 207

22) One of the factors of $(1 + 7x)^2 + (49x^2 - 1)$ is:
a) x – 7 b) 7 – x c) 7x – 1 d) 14x

23) The factorization of $6x^2 + 11x + 3$ is:
a) (3x + 1) (2x + 3) b) (x + 1) (2x + 3)
c) (x + 3) (2x + 1) d) (3x + 3) (x + 1)

24)
If $\frac{a}{b}+\frac{b}{a}=-1(a,b\neq 0)$, the value of a^3-b^3 is:
a) 1 b) –1 c) 0 d) 1/2

25)
If $81y^2-k=\left(9y+\frac{1}{2}\right)\left(9y-\frac{1}{2}\right)$, then the value of k is:
a) 0 b) ¼ c) 1/2 d) 1/√2

CHAPTER 3 (CO-ORDINATE GEOMETRY) MCQ

1)Abscissa of a point is positive in
(a) I and II quadrants (b) I and IV quadrants
(c) I quadrants only (d) II quadrant only.

2) The points (-5, 2) and (2, -5) lie in the
(a) same quadrant (b) II and III quadrant respectively.
(c) II and IV quadrant respectively. (d) I and IV quadrant respectively.

3) If (x + 2, 4) = (5, y – 2), then coordinates (x, y) are
(a) (7, 12) (b) (6, 3) (c) (3, 6) (d) (2, 1)

4) Mirror image of the point (9, -8) in y-axis is
(a) (-9, -8) (b) (9, 8) (c) (-9, 8) (d) (-8, 9)

5) The coordinates of the point which lies on y-axis at a distance of 4 units in negative direction of y-axis is
(a) (5, 4) (b) (4, 0) (c) (0, -4) (d) (-4, 0)

6) If the points A(2, 0), B(-6, 0) and C(3, a – 3) lie on the x-axis, then the value of a is
(a) 0 (b) 2 (c) 3 (d) -6

7) Which of the following points lies on the negative side of x axis?
(a) (-4, 0) (b) (3, 2) (c) (0, -4) (d) (5, -7)

8) The point M lies in the IV quadrant. The coordinates of point M are
(a) (a, b) (b) (-a, b) (c) (a, -b) (d) (-a, -b)

9) Write the name of the quadrant in which the point (-3, -5) lies.
(a) First quadrant (b) Second quadrant
(c) Third quadrant (d) Fourth quadrant

10) The number of parts the coordinates axes divide the plane is
(a) Two parts (b) Four parts (c) Six parts (d) Eight parts

11) Point (0, 4) lies
(a) in I quadrant (b) on x-axis (c) on y-axis (d) in IV quadrant

12) The mirror image of the point (-3, -4) in x-axis is
(a) (-4, -3) (b) (3, -4) (c) (3, 4) (d) (-3, 4)

13) In which quadrant does the point (-1, 2) lies?
(a) First quadrant (b) Second quadrant
(c) Third quadrant (d) Fourth quadrant

14) Abscissa of a point is negative in
(a) I and II quadrant (b) I and IV quadrant
(c) II and III quadrant (d) IV quadrant only

15) Abscissa of all the points on y-axis is
(a) 1 (b) any number (c) 0 (d) -1

16) Which is the example of geometrical line?
(a) Blackboard (b) Sheet of paper (c) Meeting place of two walls (d) Tips of sharp pencil.

17) If the perpendicular distance of a point P from the x-axis is 5 units and the foot of the perpendicula lies in the negative direction of the x-axis, then point P has

A. x – coordinate = – 5 B. y – coordinate = 5 only
C. y – coordinate = – 5 only D. y – coordinate = 5 or –5

18) Ordinate of all points on the x-axis is

A. 0 B. 1 C. – 1 D. any number

CHAPTER 4 (Linear Equations In Two Variables) MCQ

1) The value of y at x = -1 in the equation 5y = 2 is
(a) 52 (b) 25 (c) 10 (d) 0

2) Equation of a line which is 5 units distance above the x-axis is
(a) x = 5 (b) x + 5 = y (c) y – 5 (d) x – y = 0

3) x = 3 and y = -2 is a solution of the equation 4px – 3y = 12, then the value of p is
(a) 0 (b) 12 (c) 2 (d) 3

4) Which of the following is the equation of a line parallel to y-axis?
(a) y = 0 (b) x + y = z (c) y = x (d) x = a

5) Any point on the line y = 3x is of the form

(a) (a, 3a) (b) (3a, a) (c) (a, a/3) (d) (a/3, -a)

6) Any point of the form (a, – a) always lie on the graph of the equation
(a) x = -a (b) y = a (c) y = x (d) x + y = 0

7) The graph of the equation 2x + 3y = 6 cuts the x-axis at the point
(a) (0, 3) (b) (3, 0) (c) (2, 0) (d) (0, 2)

8) Graph of linear equation ax + by + c = 0, a ≠0, b ≠0 cuts x-axis and y-axis respectively at the points.
(a) (−c/a, 0), (0, −c/b) (b) (0, −c/b), (−c/a, 0)
(c) (-c, 0) (0, -c) (d) (x, 0) (y, 0)

9) Which of the following ordered pairs is a solution of the equation x – 2y – 6 = 0?
(a) (2, 4) (b) (0, 3) (c) (-4, 1) (d) (4, -1)

10) How many linear equation in x and y can be satisfied by x = 1 and y = 2?
(a) only one (b) two (c) infinitely many (d) three

11) Solution of linear equation 2x + 0.y + 9 = 0 is
(a) (9/2, m) (b) (n, −9/2) (c) (0, −9/2) (d) (−9/2, 0)

12) If (3, 2) is the solution 3x – ky = 5, then k equals of the equation
(a) 2 (b) 4 c) 3 (d) 12

13) Cost of book (x) exceeds twice the cost of pen (y) by Rs 10. This statement can be expressed as linear equation.
(a) x – 2y – 10 = 0 (b) 2x – y – 10 = 0 (c) 2x + y – 10 = 0 (d) x – 2y + 10 = 0

14) If x represents the age of father and y represents the present age of the son, then the statement for ‘present age of father is 5 more than 6 times the age of the son’ in terms of mathematical equation is
(a) 6x + y = 5 (b) x = 6y + 5 (c) x + 6y = 5 (d) x – 6 = 5

15) Equation of a line passing through origin is
(a) x + y = 1 (b) x = 2y – 4 (c) x + y = 0 (d) y = x – 1

16) The condition that the equation ax + by + c = 0 represents a linear equation in two variables is
(a) a ≠ 0, b = 0 (b) b ≠ 0, a = 0 (c) a = 0, b = 0 (d) a ≠ 0, b ≠ 0

17) The maximum number of points that lie on the graph of a linear equation in two variables is.
(a) two (b) definite (c) infinitely many (d) three

18) Straight line passing through the points (-1, 1), (0, 0) and (1, -1) has equation
(a) y – x (b) x + y = 0 (c) y = 2x (d) 2 + 3y = 7x

Chapter 1 (NUMBER SYSTEM)

1).Find three rational numbers between (i) –1 and –2 (ii) 0.1 and 0.11 (iii) 5/7 and 6/7

2) Insert a rational number and an irrational number between the following:(i) √2 and √3 (ii) .0001 and .001

3) Locate √5, √10 and √17 on the number line.

4)Represent geometrically the following numbers on the number line: (i) √4.5 (ii) √5.6

5) Express the following in the form p/q, where p and q are integers and q ≠ 0 (i) 0.2 (ii) 0.2555… (vii) .00323232…

6) If x = $3 + 2\sqrt{2}$ Find the value of $\sqrt{x} + \frac{1}{\sqrt{x}}$.

7) Determine a and b if $\frac{7+\sqrt{5}}{7-\sqrt{5}} + \frac{7-\sqrt{5}}{7+\sqrt{5}} = a + 7\sqrt{5}\,b$

8) prove that $\left(\frac{x^{a^2}}{x^{b^2}}\right)^{\frac{1}{a+b}} . \left(\frac{x^{b^2}}{x^{c^2}}\right)^{\frac{1}{b+c}} . \left(\frac{x^{c^2}}{x^{a^2}}\right)^{\frac{1}{c+a}} = 1$

9) find the value of $\frac{4}{(216)^{\frac{-2}{3}}} + \frac{1}{(256)^{\frac{-3}{4}}} + \frac{2}{(243)^{\frac{-1}{5}}}$

10) If x = $\frac{\sqrt{3}+1}{\sqrt{3}-1}$ and y = $\frac{\sqrt{3}-1}{\sqrt{3}+1}$ then find $x^2 + y^2 + xy$

CHAPTER 2 (POLYNOMIALS)

1)Find the zeroes of the polynomial p(x)= (x –2)^2–(x + 2)^2

2)Check whether p(x) is a multiple of g(x) or not:

3)(i) p(x) = x^3 – 5x^2 + 4x – 3, g(x) = x – 2
(ii) p(x)= 2x^3 – 11x^2– 4x + 5, g(x)= 2x + 1

4) Show that p – 1 is a factor of p^{10} – 1 and also of p^{11} – 1.

5) For what value of m is x^3 – 2mx^2 + 16 divisible by x + 2?

6) If both x – 2 and x – ½ are factors of px^2 + 5x + r, show that p = r.

7) If $x + \frac{1}{x} = \frac{21}{10}$ find the value of $(i)\ x^2 + \frac{1}{x^2}, (ii)\ x^3 + \frac{1}{x^3}$

8) If a,b and c are all non zero anda + b + c = 0 then prove that $\frac{a^2}{bc} + \frac{b^2}{ca} + \frac{c^2}{ab} = 3$

9) if $a^2 + b^2 + c^2$ = 90 , and a+b+c = 20 find the value of ab + bc + ca.

10) Factorise $x^6 + 6x^3 + 8$

11) find the value of $x^3 + y^3$ – 12xy +64 when x + y = - 4

12) Simplify $(2x - 5y)^3 - (2x + 5y)^3$.

CHAPTER 3 (CO-ORDINATE GEOMETRY)

1) Without plotting the points, indicate the quadrant in which they will lie, if

(i) ordinate is 5 and abscissa is – 3 **(ii) abscissa is – 5 and ordinate is – 3**
(iii) abscissa is – 5 and ordinate is 3 **(iv) ordinate is 5 and abscissa is 3**

2) Write the coordinates of the vertices of a rectangle whose length and breadth are 5 an 3 units, respectively, with one vertex at the origin, the longer side lies on the x-axis, and one of the vertices lies in the third quadrant.

3) Write the coordinates of the point which is the reflection of the point (3 , 5) in y – axis. Then write the coordinates of the point which is the reflection of this point in x – axis.

4) What are the distances of the point (7 , - 6) from the x – axis & y – axis.

CHAPTER 4 (Linear Equations In Two Variables)

1)A man sold a chair and a table together for Rs 1520 thereby making a profit of 25% on chair and 10% on table formulate a linear equation in two variables for this statement.

2) Age of father 5 years ago was two years more than 7 times the age of his son at that time formulate a linear equation in two variables for this statement.

3) Two numbers are in the ratio 3 : 4. If 10 is added to each number, then the ratio becomes 5 : 6 .formulate two linear equations in two variables to express the above statement.

4) Check whether the point (0 , 3) lie on the graph of the linear equation 3x + 4y = 12.

5) For what value of c , the linear equations 2x + cy = 8 has equal value of x and y for its solution?

6) Let y varies directly as x . If y = 12 when x = 4 then write a linear equation. What it the value c y when x = 5.

7) Express y in terms of x in the equation - 3x + 5y – 11 = 0 . Find the point where the above lin cuts the y – axis.

8) Find three solutions of the equation 2x + 3y = 6.

9) In a two digit number , the ten's digit three times the unit's digit .When the number decreased by 54 the digits are reversed . Set up two linear equations in two variables.

10) The number of sincere students in a class is two more then twice the number of careless students. Wrie linear equation in two variables for this situation.

Social Science (087)- IX

1. **Art Integrated Project** 👇

Project on Disaster Management (Subject Enrichment Activity**)**

- Different Disasters, their consequences and management
- preparedness in advance to face such situations
- Disaster mitigation plans
- Awareness and preparedness among the community.

👉 Use various forms of **Art and Craft (Drawing, Colours, painting, sketching, collage making , Mosaic etc.)** to make it attractive.

👉 The Project Report can be handwritten or digital. Page limit 10-12.

👉 The distribution of marks over different rubrics relating to Project Work is as follows:

S. No.	Aspects	Marks
A	Content accuracy, originality and Collaborative skills	2
b	Competencies exhibited and Presentation	2
c	Viva Voce	1

Note: Do Project work on loose A4 ruled sheets. Use hand made sheet for attractive file cover.

2. **Art Integrated Activity** 👇

Prepare a **PPT** of 10-15 slides on **TWO** true **Geniuses of Manipur**.

3. A. **Map work**

Do **Indian Political Map** of States & capitals, neighbouring countries, Tropic of cancer and Standard Meridian of India.

B. **Revise and Learn the syllabus done.**

Economics – The story of village Palampur, People as Resource

Civics – What is democracy? Why democracy?

History – The French Revolution

Geo – India size and Location

C. **Chapter Assignment**

HISTORY

CHAPTER-1 THE FRENCH REVOLUTION

Q1. Objective Type Questions

Select the correct answers for the following questions.

i. Who wrote an influential pamphlet 'What is the third Estate'?

a. Mirabeau b. Abbe Sieyes c. Jean-Paul Marat d. Olympe de Gouges

ii. Who led the representatives of the Third Estate in Versailles from 20th June 1789?

a. Mirabeau b. Abbe Sieyes c. Louis XVI d. Both a and b

iii. Who were not considered 'passive citizens'?

a. Women b. Children c. Non-propertied men d. 25 year old men who paid taxes

iv. Which of the following decisions was taken by the Convention?

a. Declared France a constitutional monarchy b. Abolished the democracy

c. All men and women above 21 years got the right to vote d. Declared France a Republi

v. Which of the following statements is false about the Third Estate?

a. The Third Estate was made of the poor only.

b. Within the Third Estate some were rich and some were poor.

c. Richer members of the Third Estate owned lands.

d. Peasants were obliged to serve in the army or build roads.

Q2. Assertion and Reason Type Questions

Two statements are given in the questions given below as Assertion (A) and Reason (R).

Read the statements and choose the appropriate option.

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.

i. Assertion (A):During the eighteenth century, France witnessed the emergence of a middle class.

Reason (R):The emergence of the middle class happened on account of royal patronage.

ii. Assertion (A): A large group among the Jacobins decided to start wearing long striped trousers.

Reason (R):This was to make themselves a part of the fashionable section of society.

Q3. Source Based Questions

Read the source given below and answer the following questions.

The population of France rose from about 23 million in 1715 to 28 million in 1789. This led to a rapid

increase in the demand for foodgrains. Production of grains could not keep pace with the demand. So

the price of bread which was the staple diet of the majority rose rapidly. Most workers were employed as labourers in workshops whose owner fixed their wages. But wages did not keep pace

with the rise in prices. So the gap between the poor and the rich widened. Things became worse

whenever drought or hail reduced the harvest. This led to a subsistence crisis, something that

occurred frequently in France during the Old Regime.

i. How does a subsistence crisis happen?

a. Bad harvest leads to scarcity of grains.

b. Food prices rise and the poor cannot buy bread.

c. Things became worse due to drought or hail.

d. All of the above

ii. Where were most of the workers employed as?

a. Artisans b. Labourers

c. Small scale businessmen d. None of the above

iii. Why was there a rapid increase in the demand for food grains in France?

a. Due to war b. Because of flood

c. Due to increase in population d. None of those

iv. What problem did the French people face?

a. Wages of workers did not keep pace with the rise in prices.

b. Gap of rich and poor narrowed.

c. Prices of the basic commodities were under control.

d. None of the above

Long Questions

1. Describe the main features of constitution of 1791 drafted by national assembly.
2. Which incident had led to the outbreak of French Revolution.
3. What was triangular slave trade? When and how it was abolished?

GEOGRAPHY

CHAPTER- 1 INDIA – SIZE AND LOCATION

Q1. Objective Type Questions

Select the correct answers for the following questions.

i. Which line divides India into approximately two equal parts?

a. Equator b. Tropic of Cancer c. Tropic of Capricorn d. None of these

ii. What is the position of India in the world in respect of area?

a. Eighth position b. Seventh position c. Sixth position d. Second position

iii. Which of the following is the oldest route of contact between India and other countries of the

world?

a. Ocean routes b. Maritime contact c. Land routes d. Air routes

iv. Which of the following has reduced India's distance from Europe by 7000 km?

a. Indira Gandhi Canal. b. Panama Canal c. Suez Canal d. Buckingham Canal

v. Which of the following longitudes is selected as the Standard Meridian for India?

a. 68°7′ E b. 82°30′ E c. 97°25′ E d. 23°30′

Q2. Assertion and Reason Type Questions

Two statements are given in the questions given below as Assertion (A) and Reason (R).

Read the statements and choose the appropriate option.

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.

i. Assertion (A) : India is located in Northern hemisphere.

Reason (R) : Tropic of Capricorn divides India into two halves.

ii. Assertion (A): No other country has a long coastline on the Indian Ocean as India has.

Reason (R): It justifies the naming an Ocean after it.

Q3. Source Based Questions

Read the source given below and answer the following questions.

India is a vast country lying entirely in the Northern hemisphere. The main land extends between

latitudes 8˚4′N and 37˚6′N and longitudes 68˚7′E and 97˚25′E. The Tropic of Cancer (23˚ 30′N)

divides the country into almost two equal parts. To the southeast and southwest of the mainland, lie

the Andaman and Nicobar islands and the Lakshadweep islands in Bay of Bengal and Arabian Sea

respectively. The land mass of India has an area of 3.28 million square km. India's total area accounts

for about 2.4 per cent of the total geographical area of the world. It is clear that India is the seventh

largest country of the world. India has a land boundary of about 15,200 km and the total length of the

coast line of the mainland including Andaman and Nicobar and Lakshadweep is 7,516.6 km.

i. To which direction the Andaman and Nicobar islands lie from the Indian mainland?

a. Southwest b. Southeast c. Northeast d. Northwest

ii. India's total area accounts for what percentage of the geographical area of the world?

a. 2.9% b. 3.2% c. 2.4% d. 4.2%

iii. Where do the Lakshadweep islands lie?

a. Indian Ocean b. Bay of Bengal c. Arabian Sea d. None of these

iv. Which of the following influences the duration of the day and night as one moves fron south

to north?

a. Longitudinal extent b. Latitudinal extent c. Standard Meridian d. All of these

Long Questions

1. India's strategic location on the head of Indian Ocean has helped in establishing land and Maritime relation with other countries. Explain.
2. What is Standard Meridian of India? how it is selected?

Civics CHAPTER-1 WHAT IS DEMOCRACY? WHY DEMOCRACY?

Q1. Objective Type Questions

Select the correct answers for the following questions.

i. Which body in Indian political system is an example of direct democracy?

a. Zila Parishad b. Panchayat Samiti c. Gram Sabha d. Vidhan Sabha

ii. Institutional Revolutionary Party is the famous political party of which country?

a. China b. Saudi Arabia c. Mexico d. Fiji

iii. In which case was the real power with external powers and not with the locally elected representatives?

a. India in Sri Lanka b. USSR in Communist Poland c. US in Iraq d. Both b and c

iv. What is Constitutional Law?

a. Provisions given in the Constitution b. Law to make Constitution

c. Law to set up Constituent Assembly d. None of these

v. A democratic government has to respect some rules after winning the elections. Which of these points is not a part of those rules?

a. Respecting guarantees given to the minorities.

b. Every major decision has to go through a series of consultations.

c. Office-bearers are not accountable. d. Office-bearers have some responsibilities.

Q2. Assertion and Reason Type Questions

Two statements are given in the questions given below as Assertion (A) and Reason (R). Read the statements and choose the appropriate option.

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.

i. Assertion (A): Democracy is not a legitimate government.

Reason (R): Regular, free and fair elections are the spirit of democracy.

ii. Assertion (A): A democratic government is not a magical solution for all the problems.

Reason (R): Democracy as a form of government only ensures that people take their decisions.

Q3. Source Based Questions

Read the source given below and answer the following questions.

In Pakistan, General Pervez Musharraf led a military coup in October 1999. In August 200 he issued

a 'Legal Framework Order' that amended the Constitution of Pakistan. According to this Order, the

President can dismiss the national and provincial assemblies. The work of the civilian cabinet is

supervised by a National Security Council which is dominated by military officers. So Pakistan has

had elections, elected representatives have some powers. But the final power rested with military

officers and General Musharraf himself. Clearly, there are many reasons why Pakistan under General

Musharraf should not be called a democracy. But let us focus on one of these. Can we say that the

rulers are elected by the people in Pakistan? Not quite. People may have elected their representatives

to the national and provincial assemblies but those elected representatives were not really the rulers.

They cannot take the final decisions. The power to take final decision rested with army officials and

with General Musharraf and none of them were elected by the people. This happens in many

dictatorships and monarchies. The National People's Congress has the power to appoint the

President of the country. It has nearly 3,000 members elected from all over China. Some members

are elected by the army. Before contesting elections, a candidate needs the approval of the Chinese

Communist Party. Only those who are members of the Chinese Communist Party or eight smaller

parties allied to it were allowed to contest elections held in 2002-03. The government is always

formed by the Communist Party.

i. Why can the Chinese government not be called a democratic government even though

elections are held there?

a. Army participates in election. b. Government is not accountable to the people.

c. Some parts of China are not represented at all. d. Government is always formed by the Communist Party.

ii. What was the effect of Legal Framework order that was issued by President Musharraf in August

2002?

a. It changed the policies of the country. b. It changed the borders of the country.

c. It amended the constitution of Pakistan d. All of these

iii. The work of the civilian cabinet is supervised by the National Security Council. Who

dominates it?

a. Ministers b. Military officers c. Civil officers d. The President

iv. What is false about a dictatorship?

a. Final power resides with the dictator.

b. Cabinet works independently without any pressure of the dictator.

c. Most of the times same party wins the election.

d. Constitution is modified according to the will of the dictator.

Long Questions

1. What is the common form of democracy found in today's world? What should be it features?
2. Democracy is a better form of Government than any other form of Government. Justify the statement.
3. Explain the arguments against democracy.

Economics CHAPTER-2 PEOPLE AS RESOURCE

Q1. Objective Type Questions

Select the correct answers for the following questions.

i. Which of the following is a significant step towards providing basic education to the children in

the age group of 6-14 years?

a. Sarva Shiksha Abhiyan b. Adult Education Programme c. Mid-day meal d. Education for all

ii. Why are market activities performed?

a. To exchange b. To earn income c. To earn profit d. All of these

iii. Which one from the following is included in Secondary sector?

a. Trade b. Marketing c. Manufacturing d. Education

iv. In which category services of housewives are included?

a. National income b. Domestic income c. House hold income d. None of these

v. Which one of the following is considered important to create a 'virtuous cycle' by the parents?

a. To send their children to the school. b. To take care of the health and education of their children.

c. To send their children to corporate schools. d. To provide good food to their children.

Q2. Assertion and Reason Type Questions

Two statements are given in the questions given below as Assertion (A) and Reason (R).

Read the statements and choose the appropriate option.

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.

i. Assertion (A) : Rakesh is an educated and skilled worker who earns a high monthly salar as he is

employed in a private bank in a city.

Reason (R) : Due to his education and skill he is able to earn well.

ii. Assertion (A): Unemployment leads to wastage of manpower resource.

Reason (R) : Unemployment turns people into an asset.

Q3. Source Based Questions

Read the source given below and answer the following questions.

Like other resources population also is a resource — a 'human resource'. This is the positive side of a

large population that is often overlooked when we look only at the negative side, considering only

the problems of providing the population with food, education and access to health facilities. When

the existing 'human resource' is further developed by becoming more educated and healthy, we call

it 'human capital formation' that adds to the productive power of the country just like 'physical

capital formation'. Investment in human capital (through education, training, medical car yields a

return just like investment in physical capital. This can be seen directly in the form of higher incomes

earned because of higher productivity of the more educated or the better trained persons, as well as

the higher productivity of healthier people.

i. What kind of resource is population?

a. Natural resource b. Human resource c. Man-made resource d. Both a and b

ii. What is positive about a large population?

a. It is a liability for a country. b. We need to provide food and health facilities on a very large scale.

c. It has ability to contribute to the Gross National Product. d. None of these

iii. What are the different ways to invest in human capital?

a. Education b. Training c. Health care d. All of these

iv. The large population of India can be turned into a _____ by providing it good health

and education.

a. Responsibility b. Liability c. Asset d. All of these

Long Questions

1. Why human capital is the most important factor of production? explain by giving examples.
2. Distinguish between economic and non economic activities.
3. What activities comes under different sectors of economy? explain.
4. Define- infant mortality rate, life expectancy at birth, birth rate, death rate.

Note: Do Project work on loose A4 ruled sheets. Use hand made sheet for attr

2. **Art Integrated Activity**

Prepare a **PPT** of 10-15 slides on **TWO** true **Geniuses of Manipur**.

3. A. **Map work**

Do **Indian Political Map** of States & capitals, neighbouring countries, Tropic of cancer and Stan

B. **Revise and Learn the syllabus done.**

Economics – The story of village Palampur, People as Resource

Civics – What is democracy? Why democracy?

History – The French Revolution

Geo – India size and Location

C. **Chapter Assignment**

HISTORY

CHAPTER-1 THE FRENCH REVOLUTION

Q1. Objective Type Questions

Select the correct answers for the following questions.

i. Who wrote an influential pamphlet 'What is the third Estate'?

a. Mirabeau b. Abbe Sieyes c. Jean-Paul Marat d. Olympe de Gouges

ii. Who led the representatives of the Third Estate in Versailles from 20th June

a. Mirabeau b. Abbe Sieyes c. Louis XVI d. Both a and b

iii. Who were not considered 'passive citizens'?

a. Women b. Children c. Non-propertied men d. 25 year old men who paid ta

iv. Which of the following decisions was taken by the Convention?

a. Declared France a constitutional monarchy b. Abolished the democracy

c. All men and women above 21 years got the right to vote d. Declared France

v. Which of the following statements is false about the Third Estate?

a. The Third Estate was made of the poor only.

b. Within the Third Estate some were rich and some were poor.

c. Richer members of the Third Estate owned lands.

d. Peasants were obliged to serve in the army or build roads.

Q2. Assertion and Reason Type Questions

Two statements are given in the questions given below as Assertion (A) and Re

Read the statements and choose the appropriate option.

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.

Estd. 1994