



Summer Vacation Home Work
May 2017

Class – Xth

Subject – Maths

Subject Teacher: Mr. D. N. Choudhary

1. Find the distance between the points A (8, -2) and B (3, -6).
2. Find the Co – ordinates of the point which divides the line segment joining the points (3, 5) and (7, 9) internally in the ratio 2 : 3.
3. Find the value of K if the points A (2, 3), B(4, K) and C (6, -3) are collinear.
4. Find the value of K. If the point P(2, 3) is equidistant from the points A (K, 1) and B (7, K).
5. Find the area of \triangle whose vertices are (1, -1), (-4, 6) and (3, -5).
6. Find the value of x for which the distance between the points P (2, -3), and Q (x, 5) is 10 units.
7. Prove that the points A(-3,0), B (1, -3) and C(4, 1) are the vertices of an isosceles right angled triangle.
8. Find the length of the median through the vertex A (5, 1) drawn to the $\triangle ABC$ whose other two vertices are B(1, 5) and C (-3, -1).
9. Find the ratio in which the joining of points (-3, 10) and (6, -8) is divided by point (-1, 6).
10. Three vertices of a parallelogram taken in order are (-1, 0) (3, 1) and (2, 2) respectively. Find the Co – ordinates of the fourth vertex.
11. Find the value of K when the distance between the points (3,K), and (4,1) is $\sqrt{10}$.
12. Find the area of the triangle whose vertices are (2, 3), (-1, 0) and (2, -4).
13. Find the ratio in which the point (2, y) divides the line segment joining the point A (-2, 2) and B (3, 7). Also find the value of Y.
14. Let A (4, 2), B (6, 5) and C (1,4) be the vertices of $\triangle ABC$
 - (i) Median from A meets BC at D. Find the Co- ordinates of the point D.
 - (ii) Find the Co – ordinates of the point P on AD such that AP: DP = 2:1
 - (iii) Find the length AD.
15. If the mid point of the line segment joining the points P(6, b-2) and Q (-2, 4) is (2, -3), find the value of b.
16. If the point R (-2, 3) divides the line segment PQ in the ratio 3: 4, where the co – ordinates of P are (1, 6), find the Co – ordinates of Q.
17. The length of a line segment is 13 units and Co-ordinates of one end points are (-6, 7). If the abscissa of the other end point is -1, Find the ordinates of the other end.
18. Show that the points A(1, 2), B (5, 4), C (3, 8) and D (-1, 6) are the vertices of a square.
19. Find the value of a so that the point (3, a) lies on the line represented by $2x - 3y = 5$.
20. If the point (-1, 2), (p, q) and (5, 0) are collinear and $p-q = 2$ then find the value of p and q.
21. Find the Co – ordinates of the two points which divide the line segment joining (1, -4) and (-5, -7) into three equal parts.
22. The three vertices of a parallelogram ABCD are A(3, -4), B(-1, -3) and C ((-6, 2). Find the Co-ordinates of vertex D and find the area of ABCD.
23. Find the ratio in which the y- axis divides the line segment joining the points (5, -6) and (-1, -4).

24. Determine the ratio in which the points C(P, -3) divides the join of A(-6, 3) and B (2, -9). Also find the value of P.
25. The line segment PQ joining the points P(2, -4) and Q (5, 2) is trisected at the points R(3, a) and S(b,0). Find the values of a and b.
26. If the points A (1, -2), B (2, 3) , C(-3, 2) and D (-4, -3) are the vertices of parallelograms ABCD then taking AB as the base, find the height of the parallelogram.
27. If (x, y) is equidistant from (7, -2) and (3, 1) express x in terms of y.
28. The length of line segment joining the points A (2, -3) and B (10, y) is 10 units. If A and B are in same quadrant find the value of y.
29. If the point A(1, -2) , B (2, 3), C (x, 2) and D (-4, -3) form a parallelogram, find the value of x and height of parallelogram taking BC as base.
30. If two opposite vertices of a square are (5, 4) and (1, -6) then find the Co – ordinates of its remaining two vertices.
31. The opposite angular points of square are (2, 0) and (5, 1) find the Co-ordinates of the remaining two vertices.
32. Find the distance between the points $(a \cos 35^\circ, 0)$ and $(0, a \cos 55^\circ)$.
33. Point R divides the line segment joining the points P(3, 2) and Q (6, -7) such that $\frac{PR}{PQ} = \frac{1}{3}$. If R lies on the line $3x - 4y + K = 0$ find the value of K.
34. The opposite angular points of a square are (1, 0) and (4, 1). Find the Co – ordinates of remaining two vertices of the square .
35. If P and Q are two points whose co – ordinates are $(at^2, 2at)$ and $(\frac{a}{t^2}, \frac{-2a}{t})$ respectively and S is the point (a, 0) show that $\frac{1}{SP} + \frac{1}{SQ}$ is independent of t.
36. Find the relation between x and y such that the point (x, y) is equidistant from the points (7, 1) and (3, 5) .
37. If P (5, -7) Q (4, 7) and R (6, -3) are the vertices of \triangle PQR, M is a mid point of QR and A is a point of PM joining such that $\frac{PA}{AM} = 2$, find the Co – ordinate of A.
38. If (a, o) , (o, b), and (3, 2) are collinear, show that $2a + 3b - ab = 0$.
39. Co- ordinates of house of Sonu and Labhoo are (7, 3) and (4, 3) respectively. The Co – ordinates of their school are (2, 2), if both leave their house at the same time in the morning and also reach school in time then (a) who travel faster (b) Which value is depicted in the question?
40. Find the relation between x and y if area of the triangle formed by the points (x, y), (1, 2) and (7, 0) is 5 square unit.
41. If the point P (2, 1) lies on the line segment joining the points A (4, 2) and B (8, 9) then find $\frac{AP}{AB}$.
42. ABCD is a rectangle formed by the points A(-1, -1), B (-1, 4), C (5, 4) and D (5, -1), P, Q, R and S are the mid points of AB, BC, CD and AD respectively. Is the quadrilateral PQRS is a square or rhombus? justify your answer.
43. Find the Co- ordinates of the point equidistant from three points A (5, 1) B (-3, -7) and (7,

Math

44. Chapter-Polynomial
45. Book –R. S. Agarwal
46. Ex-(2A)-4, 6, 10, 12,15,17,19
47. Ex-2(B)-2, 3, 5, 10, 12,14,16,19
48. Ex-2(c)-1,3,7,11,12,13,15,21,22,23,24,25

1. Complete Exercise 3 all questions learn & write in H.W Copy.

History (M K Tiwari)

1. Explain the role of languages in developing the nationalist sentiments in Europe.
2. Plot on a map of Europe the changes drawn up by the Vienna Congress.
3. Outline, in brief, the ideology the revolutionaries pursued after 1815.
4. Outline, in brief, the profile of Giuseppe Mazinni.
5. What do you mean by romanticism? How did it differ from revolutionary nationalist.

Civics (M K Tiwari)

1. Enumerate the features of federalism.
2. Compare a federal form of government with a unitary form of government.
3. Describe the structure of a federal government.
4. How are the responsibilities and functions divided between the different tiers of government in India?
5. What do you mean by a coalition government? How does it contribute to the growth of federalism in India?

Geography (S.R.)

1. Project Work : Make a project showing consumption and conservation of resources in your locality.
2. Imagine if oil supplies get exhausted how will this affect our life style?

Subject –Physics

Subject Teacher : Mr. B.P.Y.

Very short questions

1. What does an electric circuit mean?
2. Define the unit of electric current.
3. What is meant by saying that the potential difference between two points is IV?
4. How much energy is given to each coulomb of charge passing through a 6V battery?
5. On what factors does the resistance of a conductor depend?
6. Will current flow more easily through a thick wire or a thin wire of the same material, when connected to the same source. Why?
7. Let the resistance of an electrical component remains constant while the potential difference across the two ends of the component decreases to half of its former value. What charge will occur in the current through it?
8. Why are coils of electric toasters and electric irons made of alloy rather than a pure metal?
9. Why is tungsten used almost exclusively for filament of electric lamps?
10. How does the resistance of a wire vary with its area of cross- section?
11. Why are copper and aluminum wires usually employed for electricity transmission?

Long type questions

1. How can you verify ohm's law in your laboratory?

2. How are substances classified on the basis of resistivity? Give one example of each class of substance.
3. Exercise (Problems) from questions 7 to 14 (N.C.E.R.T book)

Subject – Chemistry

Subject Teacher : Mr. N.R.

NCERT Textbook - Exercises on page No. 14, 15 and 16.

Subject –Biology

Subject Teacher : Mr. A.N.Thakur

1. Draw well labeled diagram of the following :-
 - (a) Human Digestive system.
 - (b) Human Respiratory System.
 - (c) Human Kidney.
2. Solve exercise questions from page No. – 101 (NCERT)

Subject – Sanskrit

Subject Teacher : Mr. G.J

1. अपनी पाठ्य पुस्तक मणिका भाग – 2 के तृतीय एवं चतुर्थ अभ्यास के सभी प्रश्नों के उत्तर लिखकर याद करें।
2. अभ्यास संख्या – 3 के चौथे एवं पाँचवें प्रश्न को (क्रिया-कलाप के तौर पर) प्रोजेक्ट पेपर पर बनाकर लाएँ ।

Subject – Hindi

विषय शिक्षक -चंद्रकांत नागमणि , डॉ आलोक

- 1- हिंदी के प्रसिद्ध कथाकार की दस चर्चित लघुकथा लिखकर लाइये।
- 2- शिवपूजन सहाय, फणीश्वरनाथ रेणु, रामवृक्ष बेनीपुरी तथा कमलेश्वर की जीवनी और रचना संसार पर प्रकाश डालिये।
- 3- रस किसे कहते हैं यह कितने प्रकार का होता है उदाहरण सहित उत्तर दीजिये।

English

Teacher : Mr. C.K Jha

1. Write a letter to the editor of a news paper expressing your concern about growing craze for fast food amongst teenagers

Hints:

- About fast food
 - How is affect health
 - Your suggestion.
2. Write a letter to the editor about growing number of coaching institutions.
 3. Write a letter to the editor about cleanliness drive

Hints:-

- Its necessity

- Consequence if ignored
 - Your suggestions
4. if the text book (literature reader)is available read Mrs Packletides tigers and attempt the questions given under the lesson.

English

Mrs. R.M.

1. Integrated I (all the questions) .
2. Subject verb agreement (B₁, B₂, B₃, & C)
