BABA BANDA BAHADUR PUBLIC SCHOOL

Jind Road, Rohtak, Haryana

SUMMER VACATION HOLIDAY HOMEWORK

SESSION 2026–27

SUMMER EXCELLENCE PROGRAMME

Theme:

"No Screen Learning – Learn, Create, Explore & Grow"

★ STUDENT DETAILS ★

Name : _____

Class & Section : _____

Roll No. : _____

House : _____

★ MY SUMMER VACATION GOALS

- ☐ I will follow a proper study routine.
- ☐ I will reduce unnecessary mobile usage.
- ☐ I will read daily.
- ☐ I will help my parents at home.
- ☐ I will stay healthy and active.
- ☐ I will complete my work sincerely.

★ SUMMER EXCELLENCE ASSESSMENT ★

ASSESSMENT STRUCTURE

Assessment Area	Marks
Written Work / Subject Practice	60 Marks
Presentation / Activity / Project Work	20 Marks
Parent Feedback & Student Discipline	20 Marks

Total = 100 Marks

- Holiday Homework marks will be reflected in Term Assessments.
- Focus will be given not only to written work but also to discipline, presentation, creativity, consistency and self-study habits.

★ HOLIDAY SCORE ★

Marks Obtained : _____

Teacher's Remarks :

_____

_____

_____

"Success is the result of discipline, consistency and hard work"

Holidays Homework (Class-X)

Hindi

Section A – Concept Revision

1. Revise all chapters from NCERT textbook.
2. Prepare chapter summaries in your own words.

Section B – Writing Skills

Write:

3 औपचारिक पत्र Roll number 1 - 19

1- आप अनुपम&अनुपमा हैं ।आपके क्षेत्र को मुख्य सड़क से जोड़ने वाली सड़क पर लाइटें खराब हो गई है, जिससे दुर्घटना की आशंका बढ़ गई है। इस पर ध्यान आकर्षित करते हुए सार्वजनिक लोक निर्माण विभाग को पत्र लिखिए।

2- आप साक्षी सक्षम है। दिल्ली में सड़क दुर्घटनाएं प्रतिदिन बढ़ती जा रही है।इस संदर्भ में दैनिक जागरण दिल्ली रोड के समाचार को सड़क दुर्घटनाओं को रोकने के लिए सुझाव देते हुए पत्र लिखिए।

3- अपने क्षेत्र में बिजली वितरण की व्यवस्था की ओर बिजली अधिकारियों का ध्यान आकर्षित करते हुए दैनिक जागरण में अ.ब.स. नगर के संपादक को एक समाचार प्रकाशित करने का अनुरोध करते हुए पत्र लिखिए।

3 अनौपचारिक पत्र Roll number 20 - 38

1- आप अनुपम अनुपमा है। अपने विद्यालय की भाषण प्रतियोगिता में प्रथम स्थान प्राप्त किया है। अपने दादाजी को विद्यालय
की भाषण प्रतियोगिता की संपूर्ण जानकारी देते हुए पत्र लिखिए।

2- आपका छोटा भाई छात्रावास में रहता है। अपने छोटे भाई को व्यायाम के प्रति जागरूक करने के लिए व्यायाम का महत्व समझाते हुए पत्र लिखिए।

3- आपके पिताजी के दुर्घटनाग्रस्त हो जाने पर आपके मित्र संभव ने आपकी बहुत सहायता की तथा आपको स्थिति का सामना करने का हौसला दिया- उसे धन्यवाद करते हुए पत्र लिखिए।

3 अनुच्छेद लेखन

(Roll number 1 - 19

(Roll number 20 - 38

1- जल बचाओ] पृथ्वी बचाओ

2- जंक फूड युवा पीढ़ी

3- समाचार पत्र के नियमित पठन का महत्व

4- स्वावलंबन

5- महानगरीय भीड़-भाड़ और मेट्रो

6-ग्लोबल वार्मिंग और जन-जीवन

2 विज्ञापन

1- प्रदूषण से बचने के लिए पर्यावरण विभाग की ओर से जनहित में जारी एक आकर्षक विज्ञापन लगभग 40 शब्दों में तैयार कीजिए।

2- आपके चाचा जी ने मिठाई की दुकान खोली है।वे प्रचार प्रसार के लिए स्थानीय समाचार पत्र में उसका विज्ञापन देना चाहते हैं। आप उनके लिए लगभग 40 शब्दों में एक आकर्षक विज्ञापन तैयार कीजिए।

Section C – Grammar Practice, Worksheet

1- वाच्य pg 148, 149, 150, 151

2 -रचना के आधार पर वाक्य Pg 130, 131, 132, 133

3- अलंकार Pg 184 - 187

Section D – Analytical Thinking

1. Write character sketch of any two literary characters.
2. Explain moral values learned from poems.

Section -E परियोजना कार्य(Project Work)

1.Make a project file topic on

(राम.लक्ष्मण.परशुराम.संवाद)

Learn all important question answers

English

1. Cut out an interesting news headlines. Write the main idea and extract 5 new vocabulary words with their meanings.
2. Read a newspaper daily to improve reading speed and vocabulary.
3. Write the Summary for Chapters (The Triumph of Surgery and The Thief Story).
4. Prepare a 2-3 minute speech on a relevant topic (e.g. Importance of Sports, Mother, Pollution).
5. Solve Comprehension Passages (any 5) given in Super Grammar Book. Complete the given.
6. Solve assignments given.
7. Collect two poems on theme Nature, hope and add illustrations.
8. Read poem how to tell wild animals and identify poetic devices.
9. Write 2 letters to editor on social issues using proper format.
10. Choose an English book/short story to read during the holidays. Write a review summarizing the story. Did you enjoy it? Why or why not?
11. Find and list 10 new words from books, newspaper that you read during the holidays. For each word, write its meaning and use it in a sentence.
12. Write a persuasive essay about why reading is the best activity to do during the holidays.

Presentation / Project Work

Prepare a Project on the following Topic:

1. First Flight - Prose - A Letter to God
2. First Flight Poem - Fire and Ice
3. First Flight Poem - A Tiger in the Zoo

You are required to prepare a project report based on the guidelines given -

*Use A4 size coloured/designer paper sheets.

*The project should be handwritten.

*Use as many pictas you require.

Biology

Chapter: 5(Life Processes)

1. Read the complete chapter carefully from NCERT.
2. Revise class notes and important diagrams.

Objective type question:-

1. Which process releases energy from food? a) Respiration b) Digestion c) Transportation d) Excretion
2. The basic unit of kidney is: a) Neuron b) Nephron c) Alveoli d) Villi
3. Blood vessels carrying blood away from the heart are called: a) Veins b) Capillaries c) Arteries d) Valves

4. The process of taking in oxygen and giving out carbon dioxide is: a) Nutrition b) Respiration c) Circulation d) Excretion
5. Which pigment is necessary for photosynthesis? a) Haemoglobin b) Chlorophyll c) Melanin d) Keratin

Part B – Very Short Answer Questions
Answer in one or two words/sentences:
1. Name the organ where photosynthesis takes place.
2. What is the function of stomata?
3. Define autotrophic nutrition.
4. Name the blood vessel that carries oxygenated blood from lungs to heart.
5. What are enzymes?

Part C – Short Answer Questions
1. Differentiate between arteries and veins.
2. Explain the process of photosynthesis.
3. Write the functions of human digestive system.
4. Why is transport system necessary in human beings?
5. Explain the role of kidneys in excretion.

Part D – Long Answer Questions
1. Describe the pathway of food in the human digestive system.
2. Explain double circulation in human beings with a neat diagram.
3. Describe the structure and working of nephron.

Part E – Diagram Practice
Draw and label neatly:
* Human Digestive System
* Human Heart
* Human Excretory System
* Structure of Nephron
* Stomata

Part F – Activity Based Work

Activity 1
Prepare a colourful chart on any one topic:
* Photosynthesis
* Human Heart
* Respiratory System
* Excretory System

Part G – Case Study / HOTS Questions

1. Why do athletes breathe faster after running?
2. What will happen if there is no chlorophyll in leaves?
3. Why is blood considered a connective tissue?
4. Why do desert plants have fewer stomata?

Physics

Electricity

1. Define electric current and write its SI unit.

2. State Ohm's law.
3. Define resistance. Write its SI unit.
4. Differentiate between conductors and insulators.
5. Why is tungsten used for making bulb filaments?
6. Define potential difference.
7. What is meant by 1 ampere current?
8. What is electric power? Write its SI unit.
9. Define resistivity.
10. State two factors on which the resistance of a conductor depends.
11. Distinguish between series and parallel combination of resistors.
12. Why are coils of electric toasters and heaters made of alloys?
13. Write the relation between current, voltage and resistance.
14. What is heating effect of electric current?
15. Name the device used to measure:

- electric current
- potential difference

16. Why are household circuits connected in parallel?
17. What happens to the resistance of a wire if:

- its length is doubled?
- its area of cross-section is doubled?

18. Define 1 ohm resistance.
19. What is meant by commercial unit of electrical energy?
20. Why is fuse wire made of a material with high resistance and low melting point?

CBSE Board Important 3-Mark Questions

1. Explain the factors affecting the resistance of a conductor.
2. Derive the relation between electric power, voltage and current.
3. State Joule's law of heating. Write its mathematical expression.
4. Explain the difference between series and parallel combination of resistors.
5. Why are domestic electric appliances connected in parallel?
6. Three resistors of 2Ω, 3Ω and 6Ω are connected in parallel. Find the equivalent resistance.
7. Two resistors of 4Ω and 6Ω are connected in series across a 20V battery. Find:
    - total resistance
    - current in the circuit
8. A current of 2A flows through a conductor for 5 minutes. Calculate the charge transferred.
9. A bulb is rated 220V and 100W. Find:
    - current drawn
    - resistance of the bulb
10. An electric iron of resistance 20Ω takes a current of 5A. Calculate:

- power consumed
- heat produced in 2 minutes

11. Explain the heating effect of electric current with two applications.
12. A wire of resistance 10Ω carries a current of 2A. Calculate:

- potential difference across it

- power consumed

13. Draw a circuit diagram showing:

- battery
- ammeter
- voltmeter
- resistor

14. Explain why:

- copper and aluminium wires are used for electric transmission
- nichrome is used in heating elements

15. Calculate the equivalent resistance when three resistors 3Ω, 6Ω and 9Ω are connected:

- in series

Important Numericals

1. A current of 0.5 A flows through a conductor for 10 minutes. Calculate the charge transferred.
2. A bulb draws a current of 2 A when connected to a 220 V supply. Calculate its resistance.
3. A resistor of 10 Ω is connected to a 12 V battery. Find the current flowing through it.
4. Calculate the power of an electric heater connected to a 220 V supply drawing 5 A current.
5. A bulb of resistance 484 Ω operates on 220 V. Find the current flowing through it.
6. Three resistors of 2 Ω, 4 Ω and 6 Ω are connected in series. Find:

- total resistance
- current if connected to 24 V supply

7. Two resistors of 6 Ω and 12 Ω are connected in parallel. Find their equivalent resistance.
8. An electric iron of resistance 20 Ω draws a current of 5 A. Calculate:

- power consumed
- heat produced in 2 minutes

9. A current of 3 A flows through a resistor for 5 minutes. Calculate the heat produced if resistance is 8 Ω.
10. A 100 W bulb is used for 5 hours daily. Calculate the electrical energy consumed in 30 days.
11. Find the resistance of a wire if a current of 0.2 A flows through it when connected to 2 V battery.
12. A heater produces 500 J of heat in 10 s. Calculate its power.
13. A resistor of 15 Ω draws 2 A current. Calculate:

- potential difference
- power consumed

14. Calculate the equivalent resistance of three resistors 3 Ω, 6 Ω and 9 Ω connected in parallel.
15. A 220 V electric kettle draws 4 A current. Calculate:

- power of kettle
- energy consumed in 30 minutes

16. An electric bulb rated 220 V, 100 W is used for 8 hours. Find the energy consumed in kWh.
17. A wire has resistance 5 Ω. If current flowing through it is 3 A, calculate:

- voltage across wire
- heat produced in 1 minute

18. Two resistors of 5 Ω and 10 Ω are connected in series across 30 V supply. Find:

- equivalent resistance
- current through circuit

19. A current of 1.5 A passes through a lamp for 2 hours. Calculate the charge transferred.
20. A resistor connected to 12 V battery draws 24 W power. Calculate:

- current drawn

- resistance of resistor

CBSE Board Important 5-Mark Questions

1. State Ohm's law. Draw the circuit diagram used to verify it experimentally. Also draw the V-I graph.
2. Explain the factors affecting the resistance of a conductor. Write the mathematical relation showing dependence of resistance on these factors.
3. State Joule's law of heating. Derive the expression for heat produced in a conductor carrying current.
4. Three resistors of 2Ω, 4Ω and 6Ω are connected:

- (a) in series
- (b) in parallel

Calculate the equivalent resistance in each case. If connected to a 12V battery, also calculate the total current in each arrangement.

5. Explain with diagrams:

- series combination of resistors
- parallel combination of resistors

Also compare the current, voltage and equivalent resistance in both combinations.

6. A bulb rated 220V, 100W is used for 8 hours daily for 30 days. Calculate:

- electrical energy consumed
- energy in kWh
- cost of electricity if rate is ₹6 per unit

7. Explain the heating effect of electric current. Write three applications based on this effect.
8. What is electric power? Derive an expression for electric power in terms of current and resistance. A heater of resistance 22Ω draws current from a 220V source. Calculate:

- current drawn
- power consumed

9. Draw a labelled circuit diagram to study the dependence of current on potential difference across a resistor. State the observations and conclusion obtained from the experiment.
10. An electric iron of resistance 24Ω is connected to a 220V supply. Calculate:

- current drawn
- power consumed
- heat produced in 5 minutes
- Why is earthing necessary in domestic electric appliances?
- Why is the heating effect of current undesirable in transmission lines?
- Why does an electric bulb glow when current passes through it?
- Why are switches always connected in the live wire?
- Why does a fuse wire melt during short circuiting?
- Why are resistors connected in series in decorative lights?
- Why are thick wires used in household wiring?
- Why is the commercial unit of electrical energy kWh and not joule?
- Why do electric heaters have coils of high resistance?
- Why is electric shock dangerous for human body?
- Why does a conductor offer resistance to flow of current?
- Why are electric bulbs filled with inert gases like argon?
- Why is the filament enclosed in a glass bulb?
- Why is the resistance of alloys generally higher than pure metals
- Why does current remain same in series combination?

- Why is potential difference same across parallel combination?
- Why is electrical energy converted into heat in appliances like irons and toasters?

Resistance Numericals

1. A resistor of 10 Ω is connected to a 20 V battery. Calculate the current flowing through it.
2. Find the resistance of a conductor if a current of 2 A flows through it when connected to a 12 V battery.
3. A wire carries 0.5 A current under a potential difference of 5 V. Calculate its resistance.
4. Three resistors of 2 Ω, 3 Ω and 5 Ω are connected in series. Find the equivalent resistance.
5. Two resistors of 6 Ω and 12 Ω are connected in parallel. Find their equivalent resistance.
6. Three resistors of 4 Ω, 6 Ω and 12 Ω are connected in parallel. Calculate the total resistance.
7. A current of 3 A flows through a resistor of 8 Ω. Find the potential difference across it.
8. A resistance wire has resistance 20 Ω. If connected to 220 V supply, calculate the current through it.
9. Calculate the resistance of a bulb drawing 0.5 A current from a 220 V source.
10. Two resistors of 5 Ω and 10 Ω are connected in series across a 30 V battery. Find:
    - equivalent resistance
    - current through the circuit

11. Three resistors each of resistance 6 Ω are connected in parallel. Find the equivalent resistance.
12. A resistor of 15 Ω allows a current of 2 A to pass through it. Calculate the voltage across the resistor.
13. A wire of resistance 25 Ω is connected to a battery of 100 V. Calculate the current flowing through it.
14. Calculate the equivalent resistance when 3 Ω and 6 Ω resistors are connected:
    - in series
    - in parallel

15. A resistance of 50 Ω draws current from a 200 V supply. Find the current.
16. A current of 0.2 A flows through a conductor when connected to a 2 V battery. Find its resistance.
17. Three resistors of 2 Ω each are connected in series. Find:
    - equivalent resistance
    - current if connected to 12 V source

18. A resistor connected to 24 V source draws 4 A current. Find the resistance.
19. A circuit has two resistors 8 Ω and 4 Ω connected in parallel. Calculate the equivalent resistance.
20. A wire has resistance 10 Ω. If the current through it becomes double, what will happen to the potential difference across it?

Case Study Based Questions (CBSE Pattern)

Case Study 1: Electric Iron

Riya uses an electric iron of power 1000 W connected to a 220 V supply. The iron becomes hot due to the heating effect of electric current. A fuse is connected in the circuit for safety.

Questions:

1. What is the function of fuse in an electric circuit?
2. Name the effect of electric current used in an electric iron.
3. Calculate the current drawn by the iron.
4. Why are heating elements made of nichrome?
5. What will happen if excessive current flows in the circuit?

Case Study 2: Domestic Wiring

In a house, all appliances are connected in parallel combination. Separate switches are used for each appliance. Earthing wire is also provided in the circuit.

Questions:

1. Why are appliances connected in parallel?

2. What is the role of earthing wire?
3. What is meant by short circuiting?
4. Why is fuse connected in series?
5. Name the wire which carries current back to the source.

Case Study 3: Electric Bulb
An electric bulb contains a thin tungsten filament enclosed in a glass bulb filled with inert gas. When current passes through the filament, it becomes white hot and emits light.

Questions:

1. Why is tungsten used as filament?
2. Why is the filament thin?
3. Which effect of current is responsible for glowing of bulb?
4. Why are inert gases filled inside the bulb?
5. What is the unit of electric power?

MCQ

1. SI unit of electric current is: a) Volt b) Ohm c) Ampere d) Watt
2. Ohm's law states the relation between: a) Charge and current b) Voltage and current c) Resistance and charge d) Power and energy
3. Resistance of a conductor depends on: a) Length b) Area of cross-section c) Material d) All of these
4. The device used to measure electric current is: a) Voltmeter b) Ammeter c) Galvanometer d) Rheostat
5. Voltmeter is connected: a) In series b) In parallel c) Anywhere in circuit d) None of these
6. Ammeter is connected: a) In parallel b) In series c) Across battery d) None of these
7. Commercial unit of electrical energy is: a) Joule b) Watt c) Kilowatt-hour d) Volt
8. Heating effect of electric current is given by: a) b) c) d)
9. In series combination, current: a) Changes continuously b) Remains same c) Becomes zero d) Doubles
10. In parallel combination, potential difference: a) Remains same b) Becomes zero c) Increases d) Decreases
11. The filament of electric bulb is made of: a) Copper b) Aluminium c) Tungsten d) Iron
12. Fuse wire has: a) High melting point b) Low resistance c) Low melting point d) Zero resistance
13. Resistance of a wire increases with: a) Increase in area b) Decrease in length c) Increase in length d) Decrease in temperature
14. SI unit of resistance is: a) Volt b) Ohm c) Ampere d) Watt
15. Electric power is measured in: a) Joule b) Ohm c) Watt d) Volt
16. The formula for electric power is: a) b) c) d)
17. Which material is commonly used for heating elements? a) Copper b) Aluminium c) Nichrome d) Silver
18. A fuse is connected in: a) Parallel b) Series c) Both d) None
19. Current is the flow of: a) Atoms b) Neutrons c) Electric charges d) Molecules
20. Resistance offered by an ideal conductor is: a) Infinite b) Very high c) Zero d) 1 ohm

Social Science

Chapters Covered
Geography

* Resources and Development

Civics

* Power Sharing
* Federalism

History

* Nationalism in Europe
* French Revolution / France

Subject Enrichment Activities

Geography – Resources Survey

* Types of resources used daily
* Water conservation methods
* Waste management practices

Civics – Power Sharing & Federalism Chart

* Different levels of government
* Features of federalism
* Examples of power sharing in India

History – Timeline Activity

* French Revolution events
* Rise of nationalism in Europe
* Important leaders and movements

Project Work -

"My local area surveys "

Students will survey:-

1. Water supply
2. Waste management
3. Roads and transport
4. Pollution
5. Green areas

Include :-

1. Photos and drawings
2. Sarve report
3. Suggestions for improvement.

Topic :-

Water crisis and conservation in India. :-

1. Observer water usage at home for 3 days.
2. Prepare a water consumption chart.
3. Find causes of water shortage.
4. Suggest methods to save water.

Creative work:-

1. Design a rainwater harvesting model.
2. Make "save water "posters/ slogans.

I.T

* Prepare one model on Communication Skills or Self- management skills
* Prepare notes on Unit 1,2 Part A
* Learn Unit 1, 2 of Part A and Unit 1 of Part B

* Practise of Practical topics of Unit 1 Part B

Maths

1) Revised Ch1 to 4,7 from NCERT
2)Solved work sheet of given chapters .
   - Real number
   - Polynomial
   - Pair of linear equation into variable
   - Quadratic equation

Chapter 1 REAL NUMBERS

Q1. Prove that $5 - 2\sqrt{3}$ is an irrational number.

Q2. Prove that $\sqrt{3} + \sqrt{2}$ is an irrational number.

Q3. Why is $5 \times 7 \times 11 + 7$ is a composite number.

Q4. Given that HCF (306,657) = 9 find the LCM (306,657).

Q5. A circular field has a circumference of 360 km. three cyclist start together and can cycle 48, 60 and 72 km a day round the field when they meet again?

Q6. Determine the smallest 3 digit number which is exactly divisible by 6 , 8 and 12.

Q7. Find the HCF of 81 and 237 and express it in a linear combination of 81 and 237.

Q8. If LCM (480,672) = 3360 find the HCF (480,672).

Q9. Prove that $\sqrt{5}$ is an irrational number.

Q10. Prove that $\sqrt{5} + \sqrt{3}$ is an irrational number.

Q11. Prove that $1/\sqrt{2}$ is an irrational number.

Q12. Rove that $(\sqrt{3} + 5)/2$ is an irrational number.

CHAPTER 2 POLYNOMIALS

Q13. Draw a graph of polynomial $p(x) = x^2 - 2x - 8$.

Q14. If $p(x) = 3x^3 - 2x^2 - 6x - 5$, find p(2).

Q15. Find the quadratic polynomial whose zeroes are $2 + \sqrt{3}$ and $2 - \sqrt{3}$.

Q16. Find the zeroes of the quadratic polynomial, $6x^2 - 7x - 3$ and verify the relationship between the zeroes and coefficient.

Q17. If one zeroes of the quadratic polynomial $x^2 + 3x + k$ is 2, then find the value of k.

Q18. If one zeroes of the quadratic polynomial $(k-1)x^2 + kx + 1$ is -3 , then find the value of k.

Q19. If α and β are the zeroes of the quadratic polynomial $p(x) = 2x^2 - 5x + 7$ then find a quadratic polynomial whose zeroes are $2\alpha + 3\beta$ and $\alpha + 2\beta$.

Q20. If α and β are the zeroes of the quadratic polynomial $x^2 - 5x + 4$ then find the value of

1) $\alpha^3 + \beta^3$

2) $1/\alpha + 1/\beta - 2\alpha\beta$.

Q21. If α and β are the zeroes of a quadratic polynomial $2x^2 + 5x + k$, such that $\alpha^2 + \beta^2 + \alpha\beta = 21/4$, find the value of k.

Q22. Find the zeroes of the following polynomials and verify the relation between the zeroes and coefficient .

1) $4x^2 - 3x - 1$
2) $5t^2 + 12t + 7$
3) $4x^2 + 5\sqrt{2}x - 3$
4) $7y^2 - 11/3y - 2/3$
5) $2x^2 + 7/2x + 3/4$

Q23. If 2 and -3 are the zeroes of the polynomial $x^2 + (a+1)x + b$ then find the value of a and b.

Q24. Write a quadratic polynomial , sum of whose zeroes is $2\sqrt{3}$ and their product is 2.

Q25. Find the sun and product of zeroes of $p(x) = 2(x^2 - 3) + x$

Q26. Find a quadratic polynomial the sum of whose zeroes is 4 and one zero is 5 .

Q27. Find the zeroes of the polynomial $\sqrt{2}x^2 - 3x - 2\sqrt{2}$.

<u>CHAPTER 3 PAIR OF LINEAR EQUATION IN TWO VARIABLES</u>

Q28. The pair of equation y = 0 and y=7 has solution?

Q29. If a pair of equation is consistent then line will be?

Q30. Sum of two number is 50 and their difference is 10 , then the number are ?

Q31. Solve the following for x and y :

1) $11x + 15y + 23 = 0$, $7x - 2y - 20 = 0$
2) $2x + y = 7$, $4x - 3y + 1 = 0$
3) $2x - 3/4\ y = 3$, $5x = 2y + 7$
4) $41x - 17y = 99$, $17x - 41y = 75$
5) $2x - 3y = 9$, $3x + 1/7\ y = 2$
6) $a/b\ x - b/a\ y = a+b$, $ax - by = 2ab$
7) $2ax + 3by = a+2b$, $3ax + 2by = 2a+b$
8) $mx - ny = m^2 - n^2$, $x + y = 2m$
9) $ax - by = a^2 + b^2$, $x + y = 2a$
10) $6(ax + by) = 3a + 2b$, $6(bx - ay) = 3b - 2a$

Q32. Find the value of K , so that the following system of linear equation has no solution. $3x - y - 5 = 0$ and $6x - 2y - k = 0$

Q33. Find the value of k so that the following system of linear equation has a unique solution.

1) $X - 2y = 3$ and $3x + ky = 1$
2) $Kx + 3y = k-3$ and $12x + ky = k$
3) $Kx + 2y = 5$ and $3x - 4y = 10$

4) 8x +5y = 9 and kx + 10y =15

5) 4x – 5y = k and 2x – 3y = 12

Q34. For what value of k, the following pair of linear equation has infinite number of solution.

1) Kx +3y = 2k+1 and 2(k+1)x +9y = 7k+1

2) 2x +3y =2 and (k+2)x +(2k+1)y =2k-k

3) X +(2k-1)y =4 and kx +6y =k+6

4) 2x +(k-2)y = k and 6x +(2k-1)y = 2k+5

Q35. Find the value of a and b for which of the following linear equation has a infinite number of solution

1) (a-1)x +3y =2 and 6x +(1-2b)y = 6

2) 2x +3y =7 and (a+2b+2)y = 4(a+b)+1

Q36. Solve the following equation by graphically.

1) X +2y=3 and 4x+3y=2

2) 2x-3y-17 =0 and 4x-y-13=0

3) X+2y+2=0 and 3x+2y-2=0

4) 2x+3y=4 and 3x-y=-5

5) X=y and x+y=2

Q37. The sum of a 2 digit number and the number obtained by reversing the digit is 99 . if the digit differ by 3 find the number.

Q38. The sum of numerator and denominator of a fraction is 12. If the denominator is increased by 3 the fraction become ½. Find the fraction.

Q39. In a given fraction , if the numerator is multiplied by 2 and the denominator is reduced by 5. We get 6/5 but if the numerator of the given fraction increased by 8 and denominator is double we get 2/5 . find fraction.

Q40. Ten years hence, a man's age will be twice the age of his son. Ten years ago man was four times as old as his son. Find their present ages .

Q41. The present age of a women is 3 years more than three time the age of her daughter. Three years, the women age will be 10years more than twice the age of her daughter. find their present age.

Q42. A father is three times as old as his son. In 12 years time he will be twice as old as his son. Find their present age.

Q43. A train covered a certain distance at a uniform speed . if the train would have been 10km/h faster it would have taken 2 hours less than the original time. And if the train were slower by 10km/h it would have taken 3hours more than the scheduled time . find the distance covered by the train.

Q44. Roohi travels 300km to her home partly by train and partly by bus . she take 4 hours if she travels 60km by train and the remaining by bus. If she travels 100km by train and remaining by bus she takes 10 minutes longer. Find the speed of train and bus.

CHAPTER 4 QUADRATIC EQUATION

Q45. Solve the following quadratic equation;

1) $6x^2+11x-10=0$
2) $Y^2-4y+3=0$
3) $15x^2-x-21=0$
4) $8a^2-27ab+9b^2=0$
5) $6-x-x^2=0$
6) $X^2+9x+18=0$
7) $M^2+17mn-84n^2=0$
8) $36x^2-12ax+(a^2-b^2)=0$
9) $2x^2-x+1/8=0$
10) $4\sqrt{3}x^2+5x-2\sqrt{3}=0$

Q46. Solve the following by matrix method.

1) $\sqrt{2}x^2+7x+5\sqrt{2}=0$
2) $\frac{x+3}{x+2}=\frac{3x-7}{2x-3}$
3) $\frac{1}{a+b+x}=\frac{1}{a}+\frac{1}{b}+\frac{1}{x}$
4) $10x-1/x$
5) $\frac{a}{x-b}+\frac{b}{x-a}=2$
6) $\frac{1}{x-3}-\frac{1}{x+5}=\frac{1}{6}$
7) $4x^2-4a^2x+(a^4-b^4)=0$

Q47. Find the value of k for which the quadratic equation $2x^2+kx+3=0$ has two real and equal roots.

Q48. Find the valuer of k for which the quadratic equation $4x^2-3kx+1=0$ has real and equal roots.

Q49. If -4 is a root of the equation $x^2+px-4=0$ and the equation $x^2+px+q=0$ has equal roots then find the value of p and q.

Q50. Find the value of k for which the quadratic equation $kx^2+2x+1=0$ has real and distinct roots.

Q51. Find the value of p for which the quadratic equation $2x^2+px+8=0$ has two real and distinct roots.

Q52. Two number differ by 3 and product is 504 than find the number.

Q53. The sum of two number is 16 and the sum of their reciprocal is 1/3. Find the number.

Q54. A two digit number is such that the product of its digit is 12 when 36 is added to the number the digit are reversed . find the number.

Q55. The product of Rohit's age five year ago with his age 9 year later is 15 in years find his present age.

Q56. A motor boat whose speed is 18km/h in still water takes 1 hour more to go 24 upstream then to return to the same point. find the speed of the boat.

Q57. The time taken by a man to cover 300km on a scooter was 3/2 hours more then the time taken by him during the return journey. if the speed in return be 10km/h more then the speed in going . find the speed in each direction.

Q58. If two pipes function simultaneously a tank will be filled in 12 hours. One pipe fills the tank 10 hours faster than the other. how many hours will the second pipe take to fill the tank.

Chemistry

Written practice work

1. Solve NCERT book exercise of ch-1(chemical reaction and equation) in fair note book

2. Practice the reaction balancing

3. Practice the formation of chemical formulas of chemicals

4. Find at least 15 internal questions from ch-1(Chemical reaction and equation)

Presentation/Activity work :-

1. Write 4 example of each type of reaction