Assignment – 1
Rational Numbers

1 Which of the following pair of rational numbers is greater?

(a) $\frac{4}{9}$, $\frac{4}{9}$ (b) $\frac{-8}{11}$, 0 (c) $\frac{8}{-11}$, $\frac{-9}{22}$

2 Arrange the following in ascending order

$\frac{4}{2}, \frac{-2}{3}, \frac{1}{-2}, \frac{-4}{7}, \frac{5}{6}$

3 Represent $\frac{-5}{7}$ and $2\frac{3}{4}$ on the same number line?

4 The sum of two rational numbers is -2. If one of the numbers is $\frac{-14}{5}$, find the other

5 Using rearrangement property find the sum of $\frac{4}{3} + \frac{3}{5} + \frac{-2}{3} + \frac{-11}{5}$

6 What number should be added to $\frac{3}{4}$ to get $\frac{-1}{4}$?

7 What number should be subtracted from $\frac{3}{20}$ to get $\frac{3}{4}$?

8 Verify:- $\frac{-15}{4} \times \left(\frac{3}{7} + \frac{-12}{5}\right) = \left(\frac{-15}{4} \times \frac{3}{7}\right) + \left(\frac{-15}{4} \times \frac{-12}{5}\right)$

9 Simplify:- (-3) $\times \left(\frac{2}{-14}\right) \times \left(\frac{-5}{12}\right) \times \left(\frac{7}{15}\right)$

10 By what rational number should we multiply $\frac{11}{5}$ to get $\frac{-33}{25}$

11 What number should we added to $\frac{5}{9}$ toget $\frac{-2}{3}$?

12 Find three rational numbers between $\frac{1}{3}$ and $-\frac{1}{5}$

13 A jet covers 2040 km in an hour. How much distance will it cover in $5\frac{1}{6}$ Hours.

14 The product of two numbers is $\frac{-1}{4}$. If one of them is $-\frac{3}{10}$ then find the other number.

15 A drum full of wheat weighs $80\frac{1}{6}$ Kg. If the empty drum weighs $15\frac{3}{4}$ Kg. Find the weight of wheat in drum?

Assignment – 2
Exponents

1 Simplify :- (a) $(ab)^6 \div ab$ (b) $(6^0 + 7^0)^2$

2 Find the value of x : $(2 \times 2)^x = 2^8$

3 Evaluate:-

(a) $\left[\left(\frac{-1}{3}\right)^0 + \left(\frac{1}{5}\right)^0\right] \div 6^0$ (b) $(1^0 + 2^0 + 3^0) \div (x^0 + y^0)$

4 Simplify:-

(a) $(5^{-1} \div 4^{-1})^3$

(b) $\left[\left(\frac{-8}{16}\right)^{-1} \times \left(\frac{16}{5}\right)^{-1}\right] \div \left(\frac{4}{5}\right)^{-1}$

5 Find x so that $\left[\left(\frac{1}{3}\right)^{-2} \times (3)^5\right] = \left(\frac{1}{3}\right)^{-(-2x-1)}$

6 By what number should $\left(\frac{5}{7}\right)^{-5}$ be multiplied so that the product is 1?

7 Evaluate:-

(a) $(5^{-2} \times 2^{-2})^{-2}$ (b) $(8^6 \div 5^6)^{-3} \div \left(\frac{8}{5}\right)^{-18}$

8 Find the value of x for which $x^5 \div \frac{1}{x^{-3}} = \frac{9}{16}$

9 Find the value of P so that $\left(\frac{4}{5}\right)^3 \div \left(\frac{5}{4}\right)^3 = \left(\frac{4}{5}\right)^{3P}$

10 By what number should $\left(\frac{-3}{5}\right)^{-3}$ be divided so that the quotient may be $\left(\frac{9}{25}\right)^{-2}$?

11 Write each of the following numbers in standard form:-

(i) 345×10^5 (ii) 1.679×10^9 (iii) 0.0027 (iv) 0.00000165

12 Simplify: $\frac{25 \times t^{-4}}{5^{-3} \times 10 \times t^{-8}}$

13 Express the following rational numbers in exponential notations. Express the answer in lowest terms.

(a) $\frac{216}{1000}$ (b) $\frac{-1}{10000}$ (d) $\frac{-196}{256}$

14 Find the value of $\left(\frac{1}{3}\right)^{-2} + \left(\frac{1}{4}\right)^{-3} + \left(\frac{1}{6}\right)^{-2}$

15 By what number should $(-7)^{-1}$ be multiplied so that the product becomes $(-14)^{-1}$?

Assignment No. 3
Square & Square roots / Cube & Cube roots

1 Express 169 as the sum of odd numbers and also find its square root.

2 Find the square of 448 using diagonal method?

3 A welfare association collected. Rs. 52900 as donation from the students. If each paid as many rupees as there were students, find the number of students?

4 The area of a square field is 2025m^2 find the cost of fencing the field at Rs. 15 per m.

5 Find the smallest number which must be added to make 16160 a perfect square?

6 Find the greatest number of five digits which is a perfect square and also find the square root of the number so obtained.

7 A decimal fraction is multiplied by itself. If the product is 308.0025, find the fraction?

8 The area of square play ground is 225.6004m^2. Find the length of one side of the play ground.

9 Evaluate: $\sqrt{17\frac{16}{25}}$

10 Find the square roots of 5 correct up to 3 decimal places?

11 Evaluate:-$\sqrt{72} \times \sqrt{98}$

12 Find the $\sqrt[3]{216 \times 343}$

13 Show that $\sqrt[3]{125 \times 729} = \sqrt[3]{125} \times \sqrt[3]{729}$

14 Evaluate:- $\sqrt[3]{64} + \sqrt[3]{0.027} + \sqrt[3]{0.008}$

ASSIGNMENT NO 4
ALGEBRAIC EXPRESSION

1 Simplify using identify

$\frac{(3.72)^2-(1.96)^2}{3.72+1.96}$

2 Is x^2+1 a factor of $x^4+2x^3-x^2-2x+1$.

3 Find the quotient and the remainder when $2x^4-3x^3+x^2+1$ is divided by x-2. Verify your answer.

4 Find the products. Verify your answer by taking x=-1 and y=2. $(\frac{2}{3}x - y)(\frac{2}{3}x + y)$

5 Factorise:-

(i) $6x^2+ 7x – 3$ (ii) $(l + m)^2 – (l – m)^2$

(iii) $15x^2 – 26x + 8$ (iv) $ab(x^2 + y^2) + xy (a^2 + b^2)$

6 Find the value of $6x^2y^2-3xy$ when x=2, y=-1.

7 Evaluate $-4abc(6a^2+2ab^2)$ when a=1,b=-1,c=5.

8 Multiply $\frac{-5}{3}x^2y$ by $\left(-9x^3y+\frac{1}{25}xy^2\right)$.

9 Subtract the sum of $4x^2-3xy+y^2$ and $-2xy+9x^2-5y^2$ from $-8x^2+5xy$.

10 Find the continued product:

(i)$(3x-2y)(3x+2y)(9x^2+4y^2)$

(ii)$(2p+3)(2p-3)(4p^2+9)$

11 If $x+\frac{1}{x}=5$, find the values of

(i) $x^2+\frac{1}{x^2}$ and (ii) $x^4+\frac{1}{x^4}$

12 Evaluate the following using identity

(i) $(47)^2$ (ii) (8.3 x 7.7)

13 Write the quotient and remainder when we divide:

$(8x^4+10x^3-5x^2-4x+1)$by $(2x^2+x-1)$

14 The two adjacent sides of a rectangle are $5x^2-3y^2$ and x^2-2xy. Find the perimeter.

Assignment – No – 1
Chapter-4 Materials - Metals and Non metals

Q1. Fill in the blanks.

1. All metals are hard except _____ and _____
2. When acidic oxides are dissolved in water they form _____
3. _____ oxides turn blue litmus red
4. Metals usually displace _____ from dilute hydrochloric acid and sulphuric acid.
5. The property by which metals can be drawn into wires is called _____.

Q2. Write true or false.

1. Gold and silver are highly malleable metals.
2. Copper does not rust.
3. Metals generally have low tensile strength.
4. Non metals form acidic or neutral oxides.
5. Mercury is used for making thermometers.

Q3. Match the two columns:

Column – A	**Column – B**
1. Mercury	(a) Occurs in native state
2. Potassium	(b) Used to wrap food
3. Gold	(c) Used in fire work
4. Zinc	(d) Used in thermometers
5. Aluminium	(e) Used to galvanize iron
6. Iron	(f) Occurs in combined form

Q4. Multiple Choice Question;

1. The property of metals by which they can be beaten into thin sheet is called-
   (a) Malleability (b) Ductility (c) Conduction (d) Expansion
2. Which one of the following is metal?
   (a) C (b) N (c) Na (d) O
3. Which one of the following is non metal?
   (a) Zn (b) Al (c) Fe (d) N
4. All materials show property of malleability except
   (a) Iron (b) Graphite (c) Aluminium (d) Silver
5. Which one of the following is a good conductor of electricity?
   (a) Iron (b) Plastic (c) wood (d) Glass
6. The property of metals by which it can be drawn in to wires is called
   (a) Conductivity (b) Malleability (c) Ductility (d) Sonority
7. The metals that produce ringing sounds, are said to be-
   (a)Malleable (b) Sonorous (c) Lustrous (d) Hard

8. Which metal is found in liquid state at room temperature?
(a) Fe. (b) Zn (c) Hg (d) Al

9. What is the chemical formula of sulphurous acid?
(a) H_2SO_4 (b) SO_2 (c) SO_3 (d) H_2SO_3

10. The sulphuric acid turns blue litmus paper
(a) Red (b) Green (c) Yellow (d) Dark blue

11. Oxides of non metals are _____ in nature.
(a) Basic (b) Acidic (c) Neutral (d) All of these

12. Sodium metal is stored in
(a) Water (b) Alcohol (c) Kerosene (d) Ether

13. Which one of the following metal reacts vigorously with oxygen and water?
(a) Sodium (b) Potassium (c) Calcium (d) Both (a) & (b)

14. Which metal is present in calcium Hydroxide?
(a) C (b) O (c) Ca (d) H

15. Which non- metal catches fire if exposed to air
(a) Sodium (b) Phosphorous (c) Calcium (d) Uranium

16. What is the chemical formula of copper sulphate?
(a) $CuSO_4$ (b) $CuCO_3$ (c) $CuCl_2$ (d) CuO

17. Which gas is produced when metals react with acids
(a) Oxygen (b) Nitrogen (c) Hydrogen (d) Carbon dioxide

18. Which one of the following gas burns with the "pop" sound?
(a) Oxygen (b) Hydrogen (c) Chlorine (d) Hydrogen sulphide

19. Which of the following can be beaten in to thin sheets?
(a) Zinc (b) Phosphorus (c) Sulphur (d) Oxygen

20. On burning metals react with oxygen to produce
(a) Metal hydroxide (b) Metal chloride (c) Metal oxide (d) Metal sulphate

21. Which gas is produced by a piece of burning charcoal ?
(a) CO_2 (b) CO (c) H_2S (d) O_2

22. Which non metal is essential for our life and inhaled during breathing?
(a) H (b) O (c) C (d) N

23. Non metals are used in
(a) Aeroplanes (b) Making machinery (c) Water boiler (d) Fertilizers

24. Which metal is found in plants?
(a) Fe (b) Cr (c) Mg (d) CO

25. Which one of the following is very reactive non metals
(a) Sodium (b) Potassium (c) Carbon (d) Phosphorous

26. Which one of the following is a good conductor of electricity?
(a) Iron (b) Sulphur (c) Coal piece (d) Wood

27. Which material show shiny appearance?
(a) Coal (b) Sulphur (c) Aluminium (d) Carbon

28. Which material is hard in nature?
(a) Iron (b) Coal (c) Oxygen (d) Wood

29. Which one of the following metal is used in thermometers?
(a) Copper (b) Mercury (c) Aluminium (d) Iron

30. Aluminium foil is used for wrapping
(a) Food (b) Clothes (c) Plastic (d) Wires

Q5. The difference between the physical properties of metals and non-metals are shown in the following table. Fill in the gaps.

Characteristic	Metals	Non-Metals
Physical state	Metals are generally solid except _____	Non metals are either soilds or gases._____is the only liquid non metal.
Lustre	Metals are _____	Except iodine, non metals are _____.
Hardness	Except Sodium & Potassium, metals are _____	Non metals are soft except _____ which is the hardest substance.
Malleability	Metals are malleable	Non metals are _____
Tensile strength	Metals have _____ tensile strength	Non metals have low tensile strength.
Ductility	Metals can be drawn into wires. So they are_____	Non metals cannot be drawn into wires. So they are not _____.
Conductivity	Metals are good conductors of _____&_____	Non metals are _____ conductors of heat and electricity
Sonority	Metals are _____	Non metals are _____
Density	Metals have _____ density.	Non metals have _____ density.

Q6. Very short question:

1. Name the metal which is highly malleable.
2. Does copper also get rusted?
3. Why sodium metal is stored in kerosene?
4. Why phosphorus is stored in water?
5. Where iron is present in the our body?
6. Where is magnesium found in the plants?
7. What are metalloids? Give any two examples.
8. Give reason why we don't see wooden bells in temples?

Q7. Short Answer Question:

1. How can we classify the elements? Give examples.
2. Can you hold a hot metallic pan which is without a plastic or wooden handle and not get hurt? Explain.
3. What kind of handle does a screw driver has and why?
4. What is meant by reactivity series of metals?
5. Is there any difference in the way metal and non- metal react with acids?
6. What are displacement reactions? Give example.

Q8. Long Answer Question:

1. What are the differences between the physical properties of metals and non- metals?
2. Define the following terms:

(a) Metallic lustre (b) Malleability (c) Ductility (d) Conductivity (e) Sonority

3. Show by an activity that metals are basic in nature with a chemical reaction.
4. How does corrosion in copper take place?
5. Which of the following reactions will not occur and why?

(a) $Cu+MgSO_4 \rightarrow CuSO_4 + Mg$ (b) $Fe+ CuSO_4 \rightarrow FeSO_4 + Cu$

(c) $Fe+ Mg\ SO_4 \rightarrow FeSO_4 + Mg$ (d) $ZnSO_4 + Cu \rightarrow CuSO_4 + Zn$

6. What are the uses of metals and non metals?
7. Explain the reactions of metals and non metals with a) Acid b) water c) oxygen.
8. Show by an activity that non metals are acidic nature with the chemical reaction.
9. Show by an activity that metals react with base to produce hydrogen gas.

Assignment –No- 2
Chapter-2 Micro Organisms: Friend and Foe

Q.1 Fill in the blanks:

1. Root nodules of _____ plants contain bacteria that can fix _____
2. Disease causing microbes are called _____
3. The process of conversion of sugar in to alcohol in the absence of oxygen is called _____
4. Disease which can spread from one person to another is called a _____ disease.
5. The fungus_____ is used to make bread and cake.
6. Yeast is added to dough to produce _____ which makes the dough rise.
7. _____ is the plant disease caused by fungus.
8._____ is the plant disease caused by Bacteria.
9._____is the plant disease caused by Virus.
10. When an antigen enters the body, the body produces proteins called _____ to destroy it.

Q2. Write true or false

1. Microbes can exist in very high and very low temperature.
2. AIDS is viral disease
3. Nitrogen fixation is done by viruses.
4. Yeast is used to make alcoholic drinks by fermentation.
5. Antibiotics can cure viral infection.
6. Micro organisms grow well in the presence of salt.
7. The bacterium lactobacillus is used in bread making.
8. Nodules are seen in the roots of pea plant.

Q3. Match the following columns.

Column A	**Column B**
1. Aedes	(a) Sewage
2. Eutrophication	(b) Virus
3. Cheese	(c) Cilia
4. Paramoecium	(d) Carrier of dengue virus
5. AIDS	(e) Yeast

Q4. Multiple choice question:

1. Which of the following is an antibiotic?
   (a) Sodium benzoate (b) Streptomycin (c) Yeast (d) Alcohol
2. Which one of these helps in nitrogen fixation?
   (a) Rhizobium (b) Nostoc (c) Lightning (d) all
3. Which of these is autotrophic in nature?
   (a) Algae (b) Virus (c) Fungi (d) Protozoa
4. Algae are an important part of the aquatic food chain because they are.
   (a) Producers (b) Consumers (c) Decomposers (d) All

5. Which is not micro – organism?
   (a) Protozoa (b) Virus (c) Housefly (d) Bacteria
6. Which of the following is a harmful bacterium?
   (a) Rhizobium (b) Lactobacillus (c) Vibrio cholerae (d) Acetobacter
7. Conversion of milk to curd is caused by
   (a) Algae (b) Bacteria (c) Virus (d) Protozoa
8. Decomposers are microbes that
   (a) Act on living bodies (b)Cause typhoid
   (c) Act on dead organisms (d) Helpin fixing nitrogen
9. Salting helps in the preservation of food by
   (a) Increasing the acidity (b) Increasing the water content
   (c) Extracting the water (d) Lowering its temperature.

Q5. Very short Answer type questions:

1. What are micro – organisms?
2. What are viruses?
3. Name some diseases caused by viruses.
4. Name some diseases caused by protozoa.
5. Name some diseases caused by Bacteria.
6. Name the micro – organism which can live alone.
7. Name the micro – organisms which may live in colonies.
8. Name the scientist who discovered antibiotic Penicillin and when?
9. Why antibiotics are mixed with the feed of live stock and poultry?
10. Who discovered the vaccine for small pox?
11. What are antibodies?
12. Define pathogens.
13. Who discovered the process of pasteurization?

Q6. Short Answer type question:

1. What are different habitats of micro-organisms?
2. Explain how bacteria clean up the environment.
3. Explain how bacteria help in making of curd.
4. Define fermentation. Write its equation and who discovered the process of fermentation.
5. What are antibiotics? Give examples.
6. Why antibiotics are not effective against cold and flu?

7. What are biological nitrogen fixers?

8. Name some ways by which pathogens are transmitted in the body.

OR

How do pathogens enters in our body?

9. Define communicable diseases. Give examples.

10. How is common cold transmitted?

11. What are carriers? Give examples.

12. Why is it advisable to keep food always covered?

13. Name some diseases caused by micro- organisms in animals?

14. What is the cause of food poisoning?

OR

How food can become a poison?

15. What do you mean by pasteurization and pasteurized milk?

16. Define preservatives and give examples.

17. Name the different methods which are used for food preservation.

18. Make a table showing some plant diseases, their causative micro-organism & their mode of transmission.

19. How can we prevent the spread of communicable diseases?

20. Why should we not allow water to collect anywhere in the neighbourhood?

Q7. Long Answer type question:

1. Define vaccine and vaccination.

2. Draw nitrogen cycle occurring in nature.

3. Make a table showing some common human diseases, causative micro-organisms & their mode of transmission.

Assignment –3
Chapter-11 Force & pressure

Q1. Fill in the blanks:

1. If same force is made to act on a larger area, then the pressure will _____
2. When two or more forces act in the same direction, the resultant force is the _____ of all forces applied.
3. To stop a moving body, you apply force on it in a direction _____ to the direction of its motion.
4. The pressure of liquid column _____ with the depth of the column.
5. The pressure at the bottom of the sea is_____ than the pressure near the surface.

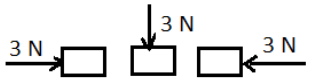
Q2. Write True or False:

1. Force does not have any effect on the shape of object.
2. The greater the area over which a force acts, the greater is the pressure.
3. Liquid exerts pressure only in the downward direction.
4. Atmospheric pressure on a hill station is less than in a beach town.
5. A charged body attracts another charged or uncharged body because of electrostatic force.
6. A ball rolling along the ground comes to rest because of gravitational force.
7. Non –contact forces need no physical contact between two objects.
8. A barometer is an instrument used for measuring the force exerted by atmosphere.
9. The atmospheric pressure is the weight of air column of the atmosphere.
10. The atmospheric pressure acting on a human body is greater than the pressure of the fluids inside the body.

Q3. Multiple Choice Questions.

1. The resultant of balanced forces is
   (a) Equal to the change in speed (b) Equal to zero
   (c) Not equal to zero (d) None of these
2. How will you identify if a force is acting on a moving object?
   (a) The object speeds up (b) The object changes direction
   (c) The object changes shape (d) All the above
3. In a tug of war, when one team is pulling with a force of 75 N and other team is pulling with a force of 65 N, what is the net force?
   (a) 5N (b) 15 N (c) 10N (d) 110 N
4. Which of the following is a contact force?
   (a) Gravitational force (b) Electrostatic force (c) Frictional force (d) Magnetic force
5. The S.I unit of force is
   (a) N/m^2 (b) Newton (c) Kg. f (d) Pascal
6. Which of the following is not true about atmospheric pressure?
   (a) It is a maximum at sea level (b) It reduces as height increases
   (c) It is equal in all directions (d) It increases as height increases
7. The S.I unit of pressure is
   (a) Pascal (b) Newton (c) Kg/ M^3 (d) Kg/ M^2
8. Tyres of big vehicles are kept bound to:
   (a) Increase friction on the ground (b) Increase pressure on the ground
   (c) Decrease friction on the ground (d) Decrease pressure on the ground

9. To reduce the pressure on the surface:
   (a) Force should be increased (b) Area should be increased
   (c) Area should be reduced (d) None of these
10. The pressure exerted by the liquid:
   (a) Increases with depth (b) Decreases with depth
   (c) Does not change with depth (d) Is different in different directions at the same depth.
11. Force is acting on each of the objects in fig.



What can be concluded about these forces?
   (a) Force in each case is the same as all have the same numerical value.
   (b) Force in each case is the same as force is applied from the same direction in each case.
   (c) Force applied is different as all have different numerical value.
   (d) Force applied is different as force is applied in different directions in each case.
12. Two forces are applied on a block as shown in fig.

What is the net effective force acting on the block?
   (a) 5 N downward (b) 5 N towards left
   (c) 5 N towards right (d) 15 N towards left

Q4. Very short Answer Question:

1. Define force.
2. When does force arise?
3. On what factors does the effect of force depend?
4. When does the net force on the object become zero?
5. Name the scientist who invented the pump to extract air out of a vessel.
6. What is meant by state of motion?
7. Why fountains of water comes out of the leaking joints or holes in pipes supplying water?

Q5. Short Answer Question:

1. Why we not crushed under the weight of air on our head?
2. What are the types of forces?
3. What are the types of contact forces? Give examples.
4. Explain the types of non contact forces.
5. What are the effects of force?
6. Define pressure with formula & unit.
7. What is the effect of force &area on pressure?
8. Why iron nail is having broad base towards the thumb side & pointed towards the other side?
9. Why school bags are provided with broad straps & not thin straps?
10. Why the tools meant for cutting & piercing always have sharp edges?
11. Define atmosphere and atmospheric pressure.
12. Why does a rubber sucker, when pressed hard stick to the surface?
13. Does the application of a force always result in a change in the state of motion of an object?
14. In a game of tug of war which team will win and why?
15. Why porters place a round piece of cloth on their heads when they have to carry heavy loads?

Q6. Long Answer question.

1. Give an activity to show that pressure exerted by water at the bottom of the container depends on the height of its column.
2. Give an activity to show that liquid exerts pressure on the walls of the container.
3. Give an activity to show that liquid exerts equal pressure at the same depth.

Assignment – 4
Chapter-12 Friction

Q1. Fill in the blanks:

1. We use ball bearings and roller bearings to _____ friction.
2. The heat produced by friction is used for _____ a match stick.
3. The frictional force acts in the _____ direction of motion so it _____ the speed of a moving object.
4. It is difficult to walk on the marble floor when soap water is spilled over it because soap water _____ friction.
5. _____ force always opposes motion.
6. The magnitude of force of friction depends on_____ and _____
7. A frictional force always tends to _____ the motion of a body.
8. Friction is caused by the _____ in the surfaces in contact.
9. You can reduce air resistance by giving objects a _____ shape.
10. Sole of the shoe is usually grooved to _____ the friction.
11. Rolling friction is less than _____
12. The frictional force exerted by a smooth surface is _____ than that exerted by a rough surface.

Q2. True/ False

1. Friction increases with the mass of objects in contact.
2. Friction does not cause any wastage of energy.
3. Friction is a contact force.
4. The less the irregularities on a surface, the greater is the friction on it.
5. Force of friction is more, when an object is stationary than when it is moving .
6. It is desirable to increase friction in brakes of vehicles.
7. Friction retards motion.
8. We can walk easily on a very smooth floor.
9. Rougher the surfaces in contact, the lesser is the friction.
10. A lubricant increases friction between moving parts.

Q3. Match the following columns:

Column A	Column B
(1) Oil	(1) The frictional force offered by fluids
(2) Static friction	(2) Lubricant
(3) Treaded tyres	(3) Must be overcome before an object can be set in motion.
(4) Drag	(4) Prevent vehicles from skidding
(5) Smooth surface	(5) Less than sliding friction
(6) Rolling friction	(6) Greater than sliding friction.

Q4. Multiple choice questions:

1. The magnitude of the force of friction depends upon
   (a) The weight of the sliding body (b) Type of the surfaces in contact
   (c) The area of contact between two surfaces. (d) All of the above
2. Pencil become smaller with use because
   (a) The lead sticks to the paper (b) Friction causes wear and tear
   (c) Lead gets rubbed with the surface of the paper (d) All of the above

3. Which of these is not correct in a world where there is no friction?
   (a) Automobiles would not be able to run on the roads
   (d) Automobile brakes would work very well
   (c) We would not be able to warm our hands by rubbing them together
   (d) We would not be able to walk.
4. In which case is friction a disadvantage?
   (a) Running of a machine (b) Walking (c) Braking a running car (d) Writing
5. The frictional force exerted by fluids is called
   (a) Drag (b) Sliding friction (c) Rolling friction (d) None of these
6. Friction between two flat surfaces cannot be reduced by
   (a) Greasing (b) Polishing
   (c) Using ball bearings (d) Decreasing the area
7. Which of the following is not an effect of friction?
   (a) Moving objects slow down (b) Moving objects stop
   (c) Moving objects wear off (d) Moving objects have weight
8. A flying machine offering the least frictional force should be
   (a) Irregular (b) Tree like
   (c) Symmetrical with many arms (d) Streamlined
9. Lubrication of the moving surfaces
   (a) Removes friction (b) Reduces friction
   (c) Increases friction (d) Has no effect on friction
10. Which of the following has the least magnitude?
   (a) Rolling friction (b) Static friction
   (c) Sliding friction (d) All of them have equal magnitude

Q5. Very Short Answer Questions:-

1. Define lubricants
2. What is fluid friction?
3. Why do we slip when we step on a banana peel?
4. Is the friction same for all the surfaces? Give reasons.
5. Can friction be entirely eliminated?

Q6. Short Answer Questions :

1. Define friction. Give examples.
2. Explain the factors affecting friction.
3. What is easier-to move the box from rest or to move it when it is already in motion?
4. Why soles of our shoes and tyres of cars, trucks, etc. are grooved?
5. Why oil, grease or graphite is applied between the moving parts of a machine?
6. Explain why it is convenient to pull the luggage fitted with rollers. ?
7. Why ball bearings are used in most of the machines?
8. On what factors does fluid friction depend?
9. Why do we sprinkle fine powder on the carrom board?

Q7. Long Answer Type Question

1. What is spring balance? How does it work?
2. Describe the examples where heat is produced due to friction.
3. Describe some examples where we deliberately increase friction.
4. Describe some events when we have to reduce the friction.
5. What are the different types of friction? Explain.

Assignment No.1
UNIT–I Chapter- 2 (History)
From Trade to Territory

Q1 Multiple choice questions:-

1. In the 1600s, a factory was a:
   (a) trading center (b) machine unit (c) garrison (d) storehouse

2. The Battle of Buxar was related to:-
   (a) Treaty of Allahabad (b) Treaty of Awadh
   (c) Treaty of Mangalore (d) Treaty of Seringapatnam

3. Hyder Ali was a _____ Chief.
   (a) Maratha (b) Mysore (c) Sikh (d) Rajput

4. Who amongst the following was not a part of the Treaty of Allahabad?
   (a) Rober Clive (b) Shujaud daulah (c) Shah Alam II (d) Mir Jafar

5. Doctrine of Lapse was devised by:
   (a) Lord Amherst (b) Lord Dalhousie
   (c) Lord Cornwallis (d) Lord Wellesley

Q2 State True/False.

(i) Tipu Sultan was called sher-e-Mysore. ( )

(ii) Awadh was annexed under Doctrine of Lapse. ( )

(iii) The English East India Company was the only European Company that traded with India. ( )

(iv) Maharaja Ranjit Singh was the ruler of Punjab. ( )

Q3 Fill in the blanks:-

(i) Siraj-ud-Daulahwas the Nawab of _____.

(ii) _____ was the first state to enter into the Subsidiary Alliance.

(iii) After the _____, the company become the actual master of Bengal.

(iv) Dalhousie implemented the Doctrine of _____.

(v) Haider Ali and Tipu Sultan were the rulers of _____.

Q4 Give one word answer for the following:-

(i) When was Battle of Plassey fought?

(ii) Name the parties involved in the Battle of Plassey.

(iii) Who was known as 'Tiger of Mysore'?

(iv) Who introduced Subsidiary Alliance?

(v) Who introduced Doctrine of Lapse?

Q5 Answer the following questions:-

(i) Name few states annexed on pretext of Doctrine of Lapse.

(ii) The Indian rulers lost most of the battles. Why?

(iii) Battle of Buxar did the unfinished work of battle of Plassey.

(iv) Mention any four features of company's administration in India.

(vi) What was 'subsidiary alliance'?

Q6 Important Dates.

(i) Annexation of Awadh. _____

(ii) The Battle of Buxar. _____

(iii) The establishment of first English factory in India _____

(iv) Jhansi was annexed under the Doctrine of Lapse. _____

Assignment No.2
Chapter-1 (Civics)
The Indian Constitution

1. Name the following:

(a) The organ of the state which resolves disputes and maintains order.

(b) President of the constituent assembly.

(c) A written document according to which a country is governed.

(d) This refers to the existence of more than one level of government in the country.

2. True / False

(a) According to the constitution, there are three organs of the state.

(b) In U.S.A state interferes in matters of religion.

(c) In 1990, democracy was established in Nepal.

(d) Indian Constitutions forces people to follow their religion.

3. Fill In the blanks

(a) In _____ the Indian National Congress made the demand for a constituent Assembly.

(b) Between December 1946 and November 1949, the _____ drafted a constitution for independent India.

(c) The Country of _____ has witnessed several people's struggles for democracy.

(d) The executive is a smaller group of people who are responsible for implementing _____ and running the government.

4. Answer the following in one sentence or phrase.

1. What does the Indian Constitution guarantee?

2. How many fundamental rights are present in our constitution?

3. Which type of government existed in Nepal in 1990?

4. Name the permanent chairman of the constituent assembly?

Assignment No. 3
Chapter-2 (Civics)
Understanding Secularism

1. State whether the following statements are true or false:

1. Secularism means equal respect for all the religions.
2. The constitution has abolished untouchability, but it is still prevalent in some sections of Indian society.
3. In secularism, there is no separation of religion from the state.
4. Islam is the official religion of Pakistan.
5. Right to vote is a Constitutional Right.

2. Fill in the blanks

(a) The Indian Constitution mandates that the Indian state be _____.

(b) The Indian state is not ruled by a _____ group.

(c) In the 1960s, _____ had faced a shortage of workers.

(d) The _____ of the state can also be in the form of support.

3. Name the following:

(a) It refers to the force used by a legal authority like the state.

(b) It refers to the state's efforts to influence a particular matter in accordance with the principles of constitution.

4. Answer the following in one sentence or phrase.

1. What is not preferred by a state in India?
2. What is a secular state?
3. Which religion is official religion of India?
4. Which article of the Indian Constitution abolished untouchability?

Assignment No. 4
Chapter- 1(Geography)
Resources

1. Classify the following into different categories of resources.

1. Plants and animals-_____
2. Land and water-_____
3. People of a country-_____
4. Fossils fuel-_____
5. Roads and buildings-_____
6. Coal and petroleum-_____

2. Fill in the blanks:

1. _____ resources are derived from living things.
2. Localised resources are found only in_____places.
3. The example of human resource is _____.
4. Solar and Wind energy is an example of _____.
5. Anything that is used to satisfy a need is called a _____.

3. State whether true or false:

1. Non-renewable resources have unlimited stock.
2. The uranium found in Ladakh is an example of potential resources.
3. Ubiquitous resources are found everywhere.
4. Human resource refers to the number and abilities of the people.
5. Resources are equally distributed all over the Earth.

4. Answer the following questions:

1. Write the meaning of conservation of resources.
_____

2. Name two important factors that can change substances into resources.
_____

3. What is the main purpose of resources?
_____

4. Why is Nagercoil famous?
_____

5. What is the prime quality of a substance to become a resource?
_____