

# HOLIDAY HOME WORK (WORK SHEET) CLASS :: X

## **PHYSICS**

- Q1 What does an electric circuit mean?
- Q2 Define the unit of current.
- Q3 Name a device that helps to maintain a potential difference across a conductor.
- Q4 What is meant by saying that the potential difference between two points is 1 V?
- Q5 How much energy is given to one coulomb of charge passing through a 6 V battery?
- **Q6** On what factors does the resistance of a conductor depend?
- **Q7** Will current flow more easily through a thick wire or thin wire of the same material when connected to the same source? Why?
- **Q8** 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 change will occur in the current through it?
- **Q9** Why are the coils of electric toasters and electric irons made of an alloy rather than a pure metal?
- Q10 Use the data in Table 12.2 of NCERT book to answer the following:
- (a) Which among iron and mercury is a better conductor?(b) Which material is the best conductor? '
- **Q11** Draw a schematic diagram of a circuit consisting of a battery of three cells of 2 V each, a 5  $\Omega$  resistor, a 8  $\Omega$  resistor and a 12  $\Omega$  resistor and a plug key, all connected in series.
- Q12 Redraw the circuit of the above question, putting in an ammeter to measure the current through the resistors and a voltmeter to measure the voltage across the 12 resistor. What would be the reading in the ammeter and the voltmeter?
- Q13 Judge the equivalent resistance when the following are connected in parallel.
- (a)  $1 \Omega$  and  $10^6 \Omega$
- (b)  $1 \Omega$ ,  $10^3 \Omega$  and  $10^6 \Omega$
- Q14 An electric lamp of 100  $\Omega$ , a toaster of resistance 50  $\Omega$  and a water filter of resistance 500  $\Omega$  are connected in parallel to a 220 V source. What is the resistance of an electric iron connected to the same source that takes as much current as all three appliances and what is the current flows through it?
- Q15 What are the advantages of connecting electrical devices in parallel with the battery instead of connecting them in series?
- **Q16** How can three resistors of resistances 2  $\Omega$ , 3  $\Omega$  and 6  $\Omega$  be connected to give a total resistance of (a) 4  $\Omega$  (b) 1  $\Omega$ ?
- Q17 What is (a) the highest (b) the lowest total resistance that can be secured by combination of four coils of resistances  $4 \Omega$ ,  $8 \Omega$ ,  $12 \Omega$ ,  $24 \Omega$ ?
- Q18 Why does the cord of an electric heater not glow while the heating element does?
- **Q19** Compute the heat generated while transferring 96000 C of charge in one hour through a potential difference of 50 V.
- Q20 An electric iron of resistance 20 Q takes a current of 5 A. Calculate the heat developed in 30 s.
- **Q21**What determines the rate at which energy is delivered by a current?
- **Q22** An electric motor takes 5 A from a 220 V line. Determine the power of the motor and the energy consumed in 2 h.
- Q23 A piece of wire of resistance R is cut into five equal parts. These parts are then connected in parallel. If the equivalent resistance of this combination is R', then the ratio R/R' is
- (a)  $\frac{1}{25}$

(b)  $\frac{1}{5}$ 

(c) 5

(d) 25

**Q24** Which of the following terms does not represent electrical power in a circuit?

(a)  $I^2R(b) IR^2(c) VI(d) V^{2/}R$ 

- **Q25** An electric bulb is rated 220 V and 100 W. When it is operated on 110 V, the power consumed will be (a) 100 W(b) 75 W(c) 50 W(d) 25 W
- **Q26** Two conducting wires of same material and of equal lengths and diameters are first connected in series and then parallel in a circuit across the same potential difference. The ratio of heat produced in series and parallel combinations would be (a) 1:2(b) 2:1(c) 1:4(d) 4:1
- Q27 How is a voltmeter connected in the circuit to measure the potential difference between two points?
- **Q28** A copper wire has a diameter 0.5 mm and resistivity of 1.6 X  $10^{-8}$   $\Omega$ m. What will be the length of this wire to make its resistance  $10 \Omega$ ? How much does the resistance change if the diameter is doubled?
- **Q29** When a 12 V battery is connected across an unknown resistor, there is a current of 2.5 mA in the circuit. Find the value of the resistance of the resistor.
- **Q30** The values of the current I flowing in a given resistor for the corresponding values of potential difference V across the resistor are given below:

| I (amperes) | 0.5 | 1.0 | 2.0 | 3.0  | 4.0  |
|-------------|-----|-----|-----|------|------|
| V (volts)   | 1.6 | 3.4 | 6.7 | 10.2 | 13.2 |

Plot a graph between V and I and calculate the resistance of that resistor.

- **Q31** A battery of 9 V is connected in series with resistors of 0.2  $\Omega$ , 0.3  $\Omega$ , 0.4  $\Omega$ , 0.5  $\Omega$  and 12  $\Omega$ , respectively. How much current would flow through the 12  $\Omega$  resistor?
- Q32 How many 176  $\Omega$  resistors (in parallel) are required to carry 5 A on a 220 V line?
- Q33 Show how you would connect three resistors, each of resistance 6  $\Omega$  , so that the combination has a resistance of (i) 9  $\Omega$  , (it) 4  $\Omega$  .
- Q34 Several electric bulbs designed to be used on a 220 V electric supply line, are rated 10 W. How many lamps can be connected in parallel with each other across the two wires of 220 V line if the maximum allowable current is 5 A?
- Q35 A hot plate of an electric oven connected to 220 V line has two resistance coils A and B, each of 24 Q resistance, which may be used separately, in series, or in parallel. What are the currents in the three cases? Q36 Compare the power used in the 2  $\Omega$  resistor in each of the following circuits.
- (i) a 6 V battery in series with 1  $\Omega$  and 2  $\Omega$  resistors, and
- (ii) a 4 V battery in parallel with 12  $\Omega$  and 2  $\Omega$  resistors.
- Q37 Two lamps, one rated 100 W at 220 V, and the other 60 W at 220 V, are connected in parallel to electric mains supply. What current is drawn from the line if the supply voltage is 220 V?
- Q38 Which uses more energy, a 250 W TV set in 1 hr, or a 1200 W toaster in 10 minutes?
- **Q39** An electric heater of resistance 8 f2 draws 15 A from the service mains 2 hours. Calculate the rate at which heat is developed in the heater.

**Q40** Explain the following.

- (a) Why is the tungsten used almost exclusively for filament of electric lamps?
- (b) Why are the conductors of electric heating devices, such as bread-toasters and electric irons, made of an alloy rather than a pure metal?
- (c) Why is the series arrangement not used for domestic circuits?
- (d) How does the resistance of a wire vary with its area of cross-section?
- (e) Why are copper and aluminum wires usually employed for electricity transmission?

### **CHEMISTRY**

Note: Do this Holiday homework in homework note book

#### **ASSIGNMENT NO:1**

1. Write the chemical formula of the following compounds. (i) Lime (ii) Nitric Acid (iii) Plaster of Paris (iv) Sodium acetate (v) Baking soda (vi) Washing soda (vii) Bleaching powder (viii) King of chemical (ix) Lime stone (x) Common Salt

- 2. Write the formula of acid and base used to form the given salts. (i) Potassium Sulphate (ii) Zinc Chloride (iii) Ammonium Chloride (iv) Barium Sulphate.
- 3. Write the name of acid present in the following. (i) Apple (ii) Curd (iii) Vinegar (iv) Lemon (v) Orange (vi) Bee sting (vii) Tamarind
- 4. Write the name of some (at least 10) chemical compounds that you use in your day to day life. Classify them as acids, bases and salts.

#### **ASSIGNMENT NO:2**

- 1. Identify any ten chemical reactions taking place around you and try to write the corresponding balanced chemical equations yourself.
- 2. Make a table for the nature of the various samples like milk, Soap water mixture, common salt solution, lemon juice, tap water .baking soda solution etc by using natural indicators likered cabbage juice ,turmeric etc.
- 3. (Note: Surf the internet to learn how to make natural indicators at home)
- 4. Make mind maps for ch 1 and ch 2 in your notebooks.
- 5. Why does an aqueous solution of alcohol fail to conduct electricity?
- 6. Which of these will have higher concentration of H+ ions? 1M HCl. or 1M CH3COOH
- 7. How is chloride of lime different from Calcium Chloride?
- 8. Does Tartaric acid help in making cake or bread fluffy? Explain.
- 9. Dry ammonia gas has no action on litmus paper but a solution of ammonia in water turns red litmus paper blue. Why is it so?
- 10. A chemical compound having smell of chlorine is used to remove yellowishness of clothes in laundries. Name the compound and write down its preparation.
- 11. A knife which is used to cut a fruit was immediately dipped in water containing few drops of blue litmus solution. If the colour of the solution changes to red, what inference could be drawn about the nature of the fruit?
- 12. Why are some salts known as hydrated salts?
- 13. What is tooth enamel chemically? State the conditions when it starts corroding.
- 14. A dry pellet of a common base B when kept open absorbs moisture and turns sticky. The compound is also prepared by Chlor Alkali process. Identify B. What happens when B reacts with hydrochloric acid?
- 15. What happens when egg shell is placed in concentrated nitric acid in a beaker?
- 16. If at home your mother uses baking soda for making cake.
- 17. how will it affect the taste of cake and why? what is the role of tartaric acid added to baking soda
- 18. how can baking soda be converted into baking powder?
- 19. what is the role of tartaric acid added to baking soda?
- 20. What is the colour of litmus in a solution of Ammonium hydroxide?
- 21. Two solutions A and B have p H values of 5 and 8 respectively. Which solution will be basic in nature?
- 22. What is observed when SO2 is passed through (a) water(b) lime waterAlso write chemical equations for the reactions that take place.
- 23. What is baking powder? How does it make the cake soft and spongy?

- 24. A calcium compound which is yellowish white powder is used as a disinfectant and also intextile industry. Name the compound. Which gas is released when this compound is left exposed to air?
- 25. Name the gas that is liberated when a dilute acid reacts with a metal .What happens when aburning candle is brought near the gas?
- 26. A compound which is prepared from gypsum has the property of hardening when mixed with a proper quantity of water. Identify the compound. Write the chemical equation for its preparation. For what purpose Is it used in hospitals?
- 1. Why should water be never added dropwise to concentrated Sulphuric acid?
- 2. Name the products formed in each case-(a) hydrochloric acid reacts with caustic soda.
- (b) Granulated Zinc reacts with caustic soda.
- (c) carbon dioxide is passed into lime water.
- 3. Why does hydrogen chloride gas not show acidic behavior?

What is meant by water of crystallization? Describe an activity to show that blue COPPER Sulphate crystals contain water of crystallization

#### **MATHEMATICS**

#### **CH-1 REAL NUMBERS**

Q1. Using Euclid's division algorithm, find the HCF of the following.

(a) 1288, 576

(b) 155, 1305

(c) 240, 1024

- Q2. If the HCF of 210 and 55 is expressible in the form  $210 \times 5 + 55y$ , find y.
- Q3. Find the largest number which divides 245 and 1029 leaving remainder 5 in each case.
- Q4. Using prime factorization, find the HCF and LCM of 72, 126 and 168.
- Q5. The HCF of two numbers is 145 and their LCM is 2175. If one number is 725, find the other.
- Q6. The product of two numbers is 20736 and their HCF is 54, find their LCM.
- Q7. After how many places of decimals, the decimal expansion of the rational number  $\frac{43}{2453}$  will terminate?
- Q8. Check whether 5<sup>n</sup> can end with the digit 0 for any natural number n.
- Q9. Express each of the following as the product of primes.

(a) 6435

(b) 8085

(c) 2184

- Q10.Show that every positive even integer is of the form 2q and every positive odd integer is of the form 2q+1, where q is some integer.
- Q11. Prove that  $5 + 2\sqrt{3}$  is an irrational number.

#### **CH-2 POLYNOMIALS**

- Q1. If (x + k) is a factor of  $2x^2 + 2kx + 5x + 10$ , find k.
- Q2. Find a polynomial whose zeros are squares of the zeroes of the polynomial  $3x^2 + 6x 9$ .
- Q3. If '1' is one of the zeroes of the polynomial  $p(x) = 7x x^2 6$  find its other zero
- Q4. Find the quadratic polynomial, sum and product of whose zeroes are 2 and -1 respectively.
- Q5. If the sum of the zeroes of the quadratic polynomial  $kx^2 + 2x + 3k$  is equal to their product, find k.

- Q6. Find a polynomial whose zeroes are 2, 1. What is its degree?
- Q7. Find the polynomial whose zeroes are reciprocals of the zeroes of the polynomial  $2x^2 + 3x 6$ .
- Q8. Find the ratio of the sum and product of the zeroes of the polynomial  $5x^2 + 2x 10$ .
- Q9. Divide  $3 x + 2x^2 + x^3 3x^4$  by (2 x) and verify by division algorithm.
- Q10. Find all the zeroes of the polynomial  $p(x) = x^4 7x^3 + 9x^2 + 13x 4$ , if two of its zeroes are  $(2+\sqrt{3})$  and  $(2-\sqrt{3})$ .
- Q11. What must be subtracted from  $8x^4 + 14x^3 2x^2 + 7x 8$  so that the resulting polynomial is exactly divisible by  $4x^2 + 3x 2$ .
- Q12. Find all zeroes of the polynomial  $f(x) = 2x^4 3x^3 5x^2 + 9x 3$ , if two of its zeroes are  $\pm \sqrt{3}$ .

#### **CH 3 LINEAR EQUATIONS IN TWO VARIABLES**

- Q1. Determine the value of k for which the given system of equations has unique solution:
  - a) 2x 3y = 1; kx + 5y = 7
- b) 4x 5y = k; 2x 3y = 12
- Q2. Find the value of k, for which the system of equations has infinitely many solutions.
  - a) 2x-3y=7; (k+2) x (2k+1) y = 3(2k-1)
  - b) x + (k+1) y = 5; (k+1) x + 9 y = 8k 1
- Q3. Represent the following equations on the graph and determine the vertices of the triangle, so formed .
  - a) 2y x = 8, 5y x = 14, y 2x = 1
  - b) y = x, y = 0, 3x + 3y = 10
- Q4. Draw the graph of x y + 1 = 0 and 3x + 2y 12 = 0. Calculate the area of the triangle bounded by these lines and the x-axis.
- Q5. Solve the system of equations x y = 1, 2x + y = 8 graphically .Shade the area bounded by these lines and x-axis. Also find its area.
- Q6. A man has belts and handkerchiefs which are together 40 in number. If he had 5 more handkerchiefs and 5 less belts, the number of handkerchiefs becomes four times the number of belts. Find the original number of each.
- Q7. The age of father is twice the sum of ages of his two children. Ten years hence, the age of father will be three-quarter of the sum of the ages of his children then. Find the present age of father.
- Q8. The numerator of a fraction is 4 less than its denominator. If the numerator is decreased by 2 and the denominator is increased by 1,the denominator becomes 8 times its numerator. Find the fraction.

### **CH 4 QUADRATIC EQUATIONS**

- Q1. The sum of square of two positive numbers is 832. If square of the larger number is 36 times the smaller number, find the numbers.
- Q2. Had Neha scored 10 more marks in her mathematics test out of 50 marks, 9 times these marks would have been the square of her actual marks. How many marks did she get in the test?

- Q3. Find a natural number whose square diminished by 37 is equal to 4 times of 2 more than the given number.
- Q4. A natural number, when decreased by 4, equals 320 times its reciprocal. Find the number.
- Q5. Solve quadratic equation  $p^2q^2x^2 + q^2x p^2x 1 = 0$  using factorization.
- Q6. Solve quadratic equation  $x^2 + 5x (a^2 + 3a 4) = 0$  using factorization.
- Q7. Find solution of quadratic equation  $b^2$  9b+ 20 = 0
- Q8. The sum of the n consecutive natural odd numbers starting from 3 is 35. Find the value of n.
- Q9. A train, traveling at a uniform speed for 6900 km, would have taken 9 hours less to travel the same distance if its speed were 15 km/h more. Find the original speed of the train.
- Q10. The sum of the first n even natural numbers is 30. Find the value of n.
- Q11. The speed of a boat in still water is 20 km/hour. It goes 96 km upstream and return downstream to starting point in 10 hours. Find the speed of the stream.
- Q12. Find the roots of the quadratic equation  $-2x^2 6x 3 = 0$ .
- Q13. If the price of a sweet is reduced by Rs. 5, Radha can buy 15 more sweets for Rs. 900. Find the original price of sweet.

# **Geography Map Skills**

3) Naharkatia

5) Mumbai High

4) Kalol

Q1 Map Skill 1 Iron Ore Mines: On the outline map of India political mark the following:

| Iron Ore Mines   | States                      |  |  |
|--|-----------------------------|--|--|
| 1) Mayurbhanj  | 1) Odisha                   |  |  |
| 2) Kudremukh   | 2) Karnataka                |  |  |
| 3) Bellary   | 3) Karnataka                |  |  |
| 4) Bailadila   | 4) Durg Bastar Chhattisgarh |  |  |
| 5) Durg  | 5) Chhattisgarh             |  |  |
| Q2 Map Skill 2 Coal Mines: On the outline map of India political mark the following: |                             |  |  |
| Coal Mines   | States                      |  |  |
| 1) Raniganj  | 1) West Bengal              |  |  |
| 2) Talcher   | 2) Odisha                   |  |  |
| 3) Bokaro  | 3) Jharkhand                |  |  |
| 4) Neyveli   | 4) Tamil Nadu               |  |  |
| Q3 Map Skill 3 Oil Field: On the outline map of India political mark the following:  |                             |  |  |
| Oil Field  | States                      |  |  |
| 1) Digboi  | 1) Assam                    |  |  |
| 2) Bassien   | 2) Maharashtra              |  |  |

3) Assam

4) Gujarat

5) Maharashtra

| 6) Ankaleswar   | 6) Gujarat                       |
|---|----------------------------------|
| Q4 Thermal Power Plant: On the outline map of India political mark  | the following:                   |
| -   | States                           |
|   | 1) Assam                         |
| •   | 2) Telangana                     |
|   | 3) Madhya Pradesh                |
| <b>Q5 Nuclear Power Plant:</b> On the outline map of India political mark                                 |                                  |
| • •   | States                           |
|   | 1) Uttar Pradesh                 |
| ,   | 2) Maharashtra                   |
| , 1   | 3) Gujarat                       |
| •   | 4) Tamil Nadu                    |
| _   | · ·                              |
| <b>Q6 Cotton Textile Mills: On</b> the outline map of India political mark to <b>Cotton Textile Mills</b> | States                           |
|   |                                  |
| ,   | 1) Maharashtra 2) Madhya Bradash |
| <i>,</i>  | 2) Madhya Pradesh                |
|   | 3) Gujarat                       |
| , <u> </u>  | 4) Uttar Pradesh                 |
| ,   | 5) Tamil Nadu                    |
| <b>Q7 Iron and Steel Plants:</b> On the outline map of India political mark                               | _                                |
|   | States                           |
|   | 1) West Bengal                   |
| <i>,</i>  | 2) Chhattisgarh                  |
| •   | 3) Jharkhand                     |
|   | 4) Karnataka                     |
| 5) Jamshedpur   | 5) Jharkhand                     |
| 6) Salem  | 6) Tamil Nadu                    |
| Q8 Software Technology Parks: On the outline map of India political                                       | al mark the following:           |
| Software Technology Parks   | States                           |
| 1) Noida  | 1) Uttar Pradesh                 |
| 2) Pune   | 2) Maharashtra                   |
| 3) Chennai  | 3) Tamil Nadu                    |
| 4) Gandhinagar  | 4) Gujarat                       |
| 5) Hyderabad  | 5) Telangana                     |
| 6) Thiruvananthapuram   | 6) Kerala                        |
| 7) Mumbai   | 7) Maharashtra                   |
| 8) Bengaluru  | 8) Karnataka                     |
| Q9 Sea Ports: On the outline map of India political mark the followin                                     | g:                               |
| •   | States                           |
| •   | 1) Gujarat                       |
|   | 2) Maharashtra                   |
| •   | 3) Goa                           |
|   | 4) Karnataka                     |
|   | 5) Kerala                        |
| ,   | 6) Tamil Nadu                    |
| <i>,</i>  | 7) Tamil Nadu                    |
| •   | 8) Andhra Pradesh                |
| o, visnaknapamam  | o) mana madesh                   |

| (1) Porodin   | 0) Odisha   |  |  |  |  |
|---|---|--|--|--|--|
| 9) Paradip  | 9) Odisha<br>10) West Bengal  |  |  |  |  |
|   | 10) Haldia 10) West Bengal  Q10 International Airports: On the outline map of India political mark the following: |  |  |  |  |
|   | States  |  |  |  |  |
| International Airports  1) Paia Sansi International Airport   |   |  |  |  |  |
| 1) Raja Sansi International Airport   | 1) Amritsar   |  |  |  |  |
| 2) Indira Gandhi International Airport  | 2) Delhi<br>3) Mumbai   |  |  |  |  |
| 3) Chhatrapati Shivaji International Airport  | 3) Mumbai   |  |  |  |  |
| 4) Meenambakkam Airport  5) Note:: Subback Chandra Base International Airport                         | 4) Chennai  |  |  |  |  |
| 5) Netaji Subhash Chandra Bose International Airport  | 5) Kolkata  |  |  |  |  |
| 6) Rajiv Gandhi International Airport   | 6) Hyderabad  |  |  |  |  |
| <b>Q11 Soil Types:</b> On the outline map of India physical mark the follo                            | _   |  |  |  |  |
| Soil Types  | States (Regions where they are grown)   |  |  |  |  |
| (A) Forest and Mountainous Soil 1)  | Hilly forest and Mountainous regions  |  |  |  |  |
| (B) Red and Yellow Soil   | 1) Deccan plateau   |  |  |  |  |
|   | 2) Odisha   |  |  |  |  |
|   | 3) Chhattisgarh   |  |  |  |  |
|   | 4) Ganga Plain  |  |  |  |  |
|   | 5) Western Ghats  |  |  |  |  |
| (C) Black Soil  | 1) Deccan trap  |  |  |  |  |
|   | 2) Maharashtra  |  |  |  |  |
|   | 3) Saurashtra   |  |  |  |  |
|   | 4) Malwa  |  |  |  |  |
|   | 5) Madhya Pradesh   |  |  |  |  |
|   | 6) Godavari   |  |  |  |  |
|   | 7) Krishna  |  |  |  |  |
| Q12 Soil Types: On the outline map of India physical mark the following                               | owing:  |  |  |  |  |
| Soil Types  | States (Regions where they are grown)   |  |  |  |  |
| (D) Alluvial Soil   | 1) Northern Plains  |  |  |  |  |
|   | 2) Rajasthan  |  |  |  |  |
|   | 3) Gujarat  |  |  |  |  |
|   | 4) Coastal plains (Delta of Mahanadi,   |  |  |  |  |
|   | Godavari, Krishna, Kaveri)  |  |  |  |  |
| (E) Arid Soil   | Western Rajasthan   |  |  |  |  |
| (F) Laterite Soil   | 1) Kerala   |  |  |  |  |
|   | 2) Karnataka  |  |  |  |  |
|   | 3) Tamil Nadu   |  |  |  |  |
|   | 4) Madhya Pradesh   |  |  |  |  |
|   | 5) Odisha   |  |  |  |  |
|   | 6) Assam  |  |  |  |  |
| Q13 Major Areas of Wheat Production: On the outline map of Ind  | ,   |  |  |  |  |
| Major Areas of Wheat Production   | States  |  |  |  |  |
| Major wheat producing regions   | Punjab, Haryana, Uttar Pradesh,   |  |  |  |  |
| Himachal Pradesh  | 1 unjuo, maryana, ottai 1 macon,  |  |  |  |  |
| Timiachai Fraccon   | Some Parts of   |  |  |  |  |
|   | Madhya Pradesh, Rajasthan, Jammu and  |  |  |  |  |
| Kashmir   | Madilya i fadesii, ixajastiiaii, Jaiiiiid and   |  |  |  |  |
| Rashmir  Q14 Major Areas of Rice Production: On the outline map of India physical mark the following: |   |  |  |  |  |
| Major Areas of Rice   | States  |  |  |  |  |
| Major Areas of Rice   | States  |  |  |  |  |

Major rice producing region

Bihar, Assam, Jharkhand, West Bengal, Chhattisgarh, Odisha, Tamil Nadu,

Kerala, Goa

Some Parts of

Telangana, Andhra Pradesh, Uttar Pradesh, Madhya Pradesh, Maharashtra

**Q15 Largest / Major producer states of the following crops:** On the outline map of India political mark the following:

#### Crops

- 1) Sugarcane
- 2) Tea
- 3) Coffee
- 4) Rubber
- 5) Cotton
- 6) Jute

#### States

- 1) Uttar Pradesh
- 2) Assam
- 3) Karnataka
- 4) Kerala
- 5) Gujarat and Maharashtra
- 6) West Bengal

# **ENGLISH**

#### PROJECT-

 Corporate social Responsibility (CSR) is an important aspect of business today.
 Choose three prominent industrialists of India and write about the work done by them in their field. Include pictures & illustrations.



#### **QUESTION BANK-**

#### **Writing Section**

- 1) You are Rohit/Rita, a student of class X of J.R. Public School, Sagarpur, New Delhi. Metro rail has become a very popular, comfortable and convenient mode of transport in your city. You also want to have the experience along with your classmates. Write an application to the principal of your school requesting her/him to arrange a metro ride for the students of your class.
- 2) You are Garima/ Chaitanya living at E-5/26 Sect-16 Rohini, New Delhi. Your streets and roads experience water logging during the monsoon season. The people of your area find it difficult to lead normal life and this adds to their problems. Write a letter to the commissioner of MCD. Delhi to take necessary steps to control the water logging and help the residents.

#### Grammar

| 1)   | Complete the dialogues by choosing the cor                      | rrect alternative from those given below.  |           |
|------|---|--|-----------|
| 1. 3 | Swati : Please tell me (a) Sumedha : Can                        | 't you see (b)? Swati : I can also see (c) | ·         |
| 2)   | Chaitanya : Could you tell me (a) : I will go there and see (c) | ? Garima: From the shop (b)                | Chaitanya |

| 3) | Astha: Could you do me a favour (a)? Tammay: First tell me (b) Ast               | ha: |  |  |  |
|----|--|-----|--|--|--|
|    | Please go to Jyoti's place and bring my book (c)                                 |     |  |  |  |
| 4) | Teacher: You will have to explain (a) Gaurav: Madam, last night power failed (b) |     |  |  |  |
|    | Teacher: This is the same excuse (c)   |     |  |  |  |
| 5) | Chintu : Do you know (a) ? Pintu : Yes, he is Mohit (b) Chintu : No              | w I |  |  |  |
|    | remember (c)   |     |  |  |  |

#### **Literature**

#### Answer the following questions in 40-50 words each :-

#### **CH.1 A LETTER TO GOD**

- 1. How did the rain change? What happened to Lencho's fields?
- 2. Who does Lencho have complete faith in? What does he do?
- 3. What does the postmaster do to answer Lencho's Letter?
- 4. Why doesn't Lencho try to find out who had sent him the money?

#### CH. 2 NELSON MANDELA - A LONG WALK TO FREEDOM

- 1. Why had the international leaders gathered in South Africa?
- 2. What ideals does Mandela set out for the future of South Africa?
- 3. How does Mandela's understanding of freedom change with age and experience?
- 4. What does Mandela refer to as 'an extra-ordinary human disaster'?

#### **CH.3 TWO STORIES ABOUT FLYING Part-1**

#### His Firsth Flight

- 1. Why was the young seagull left alone on the ledge? What was he afraid of?
- 2. What methods did the seagull's parents adopt to make him fly?
- 3. How did the seagull feel when he took his flight finally?

#### Part-2 The Black Aeroplane

- 1. What happened to the old Dakota aeroplane on its way to England?
- 2. Who helped the pilot of Dakota plane to land safely? Why was it a strange experience for him?

#### CH.4 FROM THE DIARY OF ANNE FRANK

- 1. Why does Anne want to keep a diary?
- 2. What were Anne's classmates worried about?
- 3. Which teacher does Anne not get along well and why?
- 4. What made Mr. Keesing allow Anne to talk in class

#### CH.1 A TRIUMPH OF SURGERY

- 1. How is an unduly kind attitude of Tricki's mistress responsible for his ailment?
- 2. What kind of a person do you think is Dr. Herriot? would you say he is tactful as well as full of common sense?

#### **CH.2 THE THIEF'S STORY**

- 1. Evaluate Hari Singh both as a thief and as a human being.
- 2. What do you come to know about Anil in terms of his treating Hari Singh?

#### **Reference to the Context**

#### **POEM - I : DUST OF SNOW**

- 1. "The way a crow Shook down on me The dust of snow From a hemlock tree"
- a. The composer of these line is -- i) Leslie Norris ii) Robert Frost iii) Adrinne Riche iv) Ogden Nash
- b. Where was the poet i) sitting on a heap of snow ii) sitting under a tree iii) sitting inside his cottage iv) sitting on a tree

- c. What has the crow done i) it has thrown dust on the poet ii) it has shaken the tree iii) it has shaken off some snow on the poet iv) it has dropped a fruit on the poet.
- 2. "Has given my heart A change of mood And saved some part Of a day I had rued."
- A. The poet had been feeling i) very happy ii) very depressed iii) very excited iv) very cheerful
- B. The crow has changed the poet's mood by i) singing him a song ii) giving him fruits iii) shaking down the dust of snow iv) flying away from there
- C. The poet is trying to suggest that i) small things bring big changes in life. ii) dust of snow is very useful iii) a crow is a significant bird iv) a hemlock tree has a lot of importance

#### **POEM - 2: FIRE AND ICE**

# A. "Some say the world will end in fire Some say in ice From what I've tasted of desire I hold with those who favour fire"

- 1. The poet's opinion of the world in these line is that i) it will end in ice ii) it will end in fire iii) it will never end iv) it will neither end in fire nor ice
- 2. 'Fire' signifies i) deep love ii) anger iii) greed iv) cruelty
- 3. The rhyme scheme of the passage is i) abab ii) abaa iii) abba iv) aabb

#### **POEM - 3: A TIGER IN THE ZOO**

#### 1. "He stalks in his vivid stripes The few steps of his cage On pads of velvet quiet In his quiet rage"

- A. Where is the tiger in these lines i) in zoo ii) in forest iii) in circus iv) in a field
- B. He can walk only few steps because i) he is tired ii) he is injured iii) he is locked in a cage iv) he is hungry
- C. The phrase 'quiet rage' suggests that i) the tiger is happy ii) the tiger is safe iii) the tiger is helpless iv) the tiger is comfortable

# 2. "He could be snarling around houses At the jungle's edge, Baring his white fangs, his claws, Terrorising the village!"

- A. Through these lines the poet is trying to suggest that i) the tigers should be kept in cages ii) the tigers are dangerous iii) the tigers should be killed iv) the tigers should be allowed to live in their natural habitats.
- B. The tiger scares the people by i) moving in the jungle ii) making angry sounds iii) showing his teeth & nails iv) all of the above
- C. What else can the tiger do in a jungle i) drink water ii) control his anger iii) walk only a few steps iv) kill some other animal for food.

### **BIOLOGY**

#### **CH 6 LIFE PROCESSES**

#### **VERY SHORT QUESTIONS (1 Mark)**

- 1. State one difference between autotrophic and heterotrophic mode of nutrition.
- 2. Define peristaltic movement.
- 3. What is the role of saliva in the digestion of food?
- 4. Name the tissue that transports water and minerals in plants.
- 5. What is the role of acid in our stomach?
- 6. What is emulsification?
- 7. Name the cell organelle in which photosynthesis occur.
- 8. Name the largest artery in the human body.
- 9. Define transpiration.
- 10. What is the structural and functional unit of kidney called?

#### SHORT ANSWER TYPE QUESTIONS (2 Marks)

- 1. How is small intestine designed to absorb digested food?
- 2. What are stomata? Draw a labelled diagram of stomata.
- 3. Write the equation for the process of breakdown of glucose in a cell:
- (a) in the presence of oxygen.
- (b) in the absence of oxygen.
- 4. Write the differences between inhalation and exhalation.
- 5. List the three events which occur during photosynthesis.
- 6. How does transpiration help in upward transport of substances.
- 7. Write the functions of the components of blood.
- 8. Why is small intestine longer in herbivores than in carnivores?
- 9. Explain the cause of cramps after excessive physical exercise.
- 10. Why is the rate of breathing in aquatic organisms much faster than that seen in terrestrial organisms.

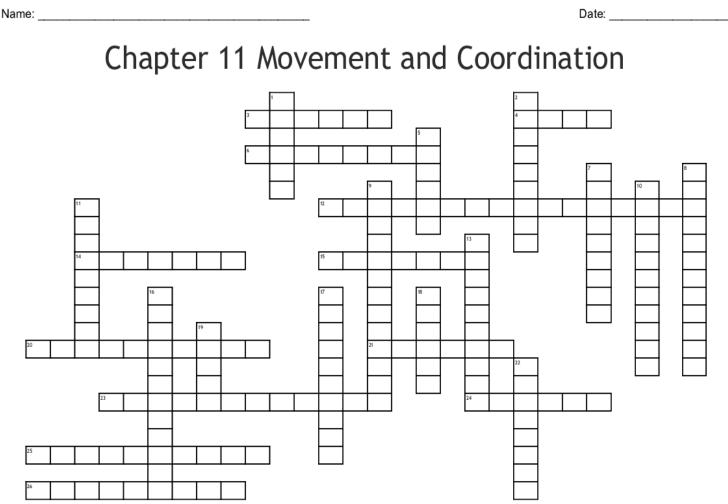
#### SHORT ANSWER TYPE QUESTIONS (3 Marks)

- 1. Describe the process of double circulation in human beings.
- 2. What are the methods used by plants to get rid of their waste products?
- 3. Give reason for the following:
- (a) Arteries are thick walled blood vessels.
- (b) Veins are thin walled blood vessels.
- (c) Veins have valves in them.

#### LONG ANSWER TYPE QUESTIONS (5 Marks)

- 1. If you chew chapatti for long, after some time it taste sweet? Why is this so?
- 2. What is the benefit of residual volume of air in the respiratory process?
- 3. Why is the energy needs in plants is very less as compared to animals? Explain.
- 4. Draw a well-labelled diagram of Nephron. Explain the process of formation of urine in the human kidney.
- 5. Draw a diagram showing Human Respiratory System. Label the following parts:
- (a) Alveolus (b) Trachea
- (c) Bronchus (d) Lungs

SOLVE THE PUZZLE: CH 7 CONTROL & COORDINATION



#### Across

- 3. Automatic response to your environment
- 4. A prolonged period of deep unconsciousness
- 6. A break in a bone
- 12, Artificial forms of the male hormone testosterone
- 14. Muscles that cannot contract due to injury, or are not used often will weaken 8. The process at which most of the cartilage is replaced with bone and shrink
- 15. Flood of brain activity
- 20. A slight tension
- 21. An overstretched or torn ligament
- 23. Walls of your esophagus and intestine push food through your digestive system, 16. A condition in which bones becomes weak and easily break others help circulate your blood
- 24. A pulled muscle
- 25. Bruise like injury to the brain
- 26. Lies between the cerebrum and the spinal cord, consists of three structors the midbrain, pons, and medulla

- 1. The basic unit of the nervous system
- 2. An abnormal curvature of the spine
- 5. A thick strand of tissue that attaches a muscle to a bone
- 7. Tough supportive tissues that are softer and more flexible than bones
- 9. Allows your heart to beat and pump blood throughout your life
- 10. The ends of the bones in a joint that are forced out of their normal position
- 11. Strong, fibrous bands that holds bones together at the joint
- 13. Overuse of tendons may lead to painful swelling and irritation
- 17. Thick column of nerve tissue that links the brain to most of the nerves in the peripheral nervous system
- 18. Another type of tissue that fills the spaces in the bones
- 19, a place in your body where two or more of your bones come together is called
- 22. Consists of several specialized regions that receive messages from sense organs and control movement, memory, communication and reasoning

#### Word Bank

spinal cord

anabolic steroids smooth muscle strain atrophy osteoporosis brain stem cerebrum fracture muscle tone tendinitis joint ossification cartilage sprain dislocation marrow tendon ligaments seizure cardiac muscle scoliosis reflex coma concussion

### INFORMATION TECHNOLOGY

neuron

- ❖ Do all the question of Chapter: Web Application & Security in Notebook.
- ❖ Create Blog and update blog with latest trend in Information Technology such as innovation and any popular software you think is very important for future. Also do project work (Atma Nirbhar Bharat) and updates its details on blog as well.

#### **QUESTION TO SOLVE**

Write a short note on the followings terms-

- (i) Types of networks- PAN, LAN, MAN, WAN
- (ii) Advantages & disadvantages of networks
- (iii) Network Architecture- (i) Peer-to-Peer networks (ii) Client- server Networks
- (iv) Network components
- (v) Network topologies Bus, Star, Ring, Tree & Hybrid topology with diagram.
- What do you mean by word processing?
- Draw chart of all the tabs of MS Word with their group information.
- Create Word document with Covid information such as prevention and safety etc. with using different styles and formatting.

### Hindi

प्रदत्त कार्य — स्त्री शिक्षा (निबंधलेखन / विज्ञापन रचना) रचनात्मक कार्य उद्देश्य — बच्चों में समाज व देश के समसामयिक विषय के प्रतिजागरूकता लाना , सृजनात्मक उदारवादी दृष्टिकोण विकिसत करना व संवेदनशीलताजगाना प्रक्रिया :—
1.परमात्मा की बनाई सृष्टि में तिरस्कार के योग्य केवल स्त्री ही क्यों ?
2.आस— पड़ोस से स्त्री शिक्षा के विषय में विचार जानकर लिखना
3.घर में काम करने वाली बाई से उसकी पुत्री की शिक्षा के बारे में जानकर लिखना
4.देश की पहली प्रधानमंत्री (इंदिरा गांधी) व महिला राष्ट्रपति (प्रतिभा पाटिल) के विषय में जानकारी जुटा कर लिखना।
5.छोटे कस्बों या गाँवो में जाकर यह जानकर लिखना कि स्त्री शिक्षा के प्रति कितनी जागरूकता है। इन सभी विषयों को शामिल करते हुए निबंध तैयार करें / विज्ञापन रचना भी करें। मूल्यांकन के आधार बिंदु विषयवस्तु —2 , विचारों की क्रमबद्धता — 1 , भाषा — 1 , प्रस्तुतीकरण — 1

- 1.मन वचन क्रम.....पकरी का वर्णन किसके लिए आया है ?सूरदास के पदों के आधार पर स्पष्ट कीजिए।
- 2. हमारे हिर हारिल की लकडी' को पढकर आपको किस जीवन सत्य का बोध होता है ?
- 3.सुरदास के 'भ्रमरगीत' की मुख्य विशेषताएँ लिखिए।
- 4.'उत्साह' कविता का उददेश्य व संदेश स्पष्ट कीजिए।
- 5.सामाजिक क्रांति में साहित्य की भूमिका महत्तवपूर्ण होती है। 'उत्साह ' कविता के आधार पर इस कथन की समीक्षा कीजिए।
- 6.हालदार साहब की देशभक्ति पर प्रकाश डालिए।
- 7.हालदार साहब किस कौम के बारे में बार- बार सोच रहे थे ?
- 8.धान की रोजाई के समय समुचे माहौल को भगत की स्वर लहरियाँ किस प्रकार चमत्कृत कर देती थी?उस माहौल का शब्द चित्र प्रस्तुत कीजिए।

9.रामवृक्ष बेनीपुरी जी का 'संझा' से क्या आशय है?वातावरण पर 'संझा' का क्या प्रभाव पड़ता था?'प्रभाती' और 'संझा' में क्या अंतर हैं ? 10.'धीरे-धीरे मन तन पर हावी हो जाता' 'बालगोबिन भगत' पाठ के आधार पर इस पंक्तिका आशय स्पष्ट कीजिए। 11.लेखक यशपाल का मन नवाब साहब को देखते ही उनके प्रति व्यंग्य से क्यों भर जाता है ? 12.परिवेश और संगति किस प्रकार बच्चों के चारित्रिक विकास में बाधक ओर साधक हैं ?'माता का आँचल' पाठ के आधार पर अपने विचार दीजिए। 13.प्रस्तुत पाठ 'माता का आँचल' के आधार पर यह कहा जा सकता है कि बच्चे का अपने पिता से अधिक जुड़ाव था , फिर भी विपदा के समय वह माँ की शरण लेता है आपकी समझ से इसकी क्या वजह हो सकती है ? 14.नवाब साहब ने गर्व से गुलाबी आँखो दवारा लेखक की ओर क्यों देखा ?और नवाब साहब दवारा सेकंड क्लास में यात्रा करने के क्या क्या कारण हो सकते हैं ? 15.नगरपालिका ने नेताजी की मूर्ति चौराहे पर लगाने में हड़बड़ाहट क्यों दिखाई थी ?इस कहानी को पढत्रकर नगरपालिका के अधिकारियों के प्रति आपकी क्या धारणा बनती हैं ? Note:- Do all work in Hindi register only.