

**DELHI PUBLIC SCHOOL, DURGAPUR**  
**QUESTION BANK & REVISION SHEET FOR FINAL EXAMINATION (2017-18)**  
**CLASS-VI**  
**SUBJECT: CHEMISTRY**

**TOPIC : AIR AROUND US**

- Q1) Describe how plants and animals depend on one another for oxygen and carbon dioxide.  
Q2) Identify the process  
a) Oxygen is removed from the air by green plants  
b) Oxygen is released into the air by green plants  
d) carbon dioxide is removed from the air  
c) Carbon dioxide is released into the air during death of animals and plants  
d) Nitrogen is released into the air from dead organic matter  
e) Water vapour is released into the air from aerial parts of plants  
f) Nitrogen is removed from the air by conversion to soluble nitrates  
g) Water vapour is released into the air from oceans  
Q3) Write the word equations for  
a) Burning of Phosphorus    b) respiration    c) Photosynthesis    d) Combustion of fuel  
Q4) Explain the utility of the following components of air  
a) Nitrogen in controlling combustion  
b) Nitrogen is utilized by plants  
c) Oxygen used for combustion  
d) Oxygen used for respiration of living things  
e) Carbon dioxide for photosynthesis in plants  
f) Carbon dioxide for warming of the Earth's atmosphere  
g) Water vapour for controlling evaporation  
h) Water vapour for determining climatic conditions  
i) Water vapour for plant and animal growth  
Q5) State the environmental effects of three polluting gases.  
Q6) Compare the three components of air – oxygen, nitrogen and carbon dioxide on the basis of colour, odour, taste, density, solubility, combustibility, nature and reactivity.  
Q7) Why are soot and dust bad for our health ?  
Q8) How dust affects visibility ?  
Q9) Why dust is essential for cloud formation ?

**TOPIC : WATER**

- Q1) Describe an activity to show Evaporation depends on  
a) Temperature    b) Surface area    c) Draught  
Q2) Describe an activity to show the presence of water vapour in air.  
Q3) What is dew?  
Q4) What is rainwater harvesting? Write about three ways of making use of rainwater.  
Q5) Name the salts present in –(i) Temporary hard water    (ii) Permanent hard water  
Q6) Write methods of removal of (i) Temporary hardness (ii) Permanent hardness of water.  
Q7) Give reason for the following  
a) Liquid chlorine is added in the chlorination tank during purification of water  
b) Water is known as a universal solvent  
c) Spring water does not lather readily with ordinary soaps but rain water lathers easily  
d) Fishes do not survive easily in polluted water  
e) An aqueous solution of potassium nitrate is considered a homogeneous mixture.  
Q8) How are the following impurities removed from water supply

- a) suspended impurities                      b) harmful germs and bacteria
- Q9) Sugar is dissolved in water to give aqueous sugar solution. Name the *solute*, *solvent* and *solution* in the above statement. Explain the meaning of the terms in italics.
- Q10) Differentiate between
- a) saturated and unsaturated solution  
b) hard water and soft water  
c) Temporary hard water and permanent hard water
- Q11) State the conditions affecting the formation of a solution.

**TOPIC : ELEMENTS , COMPOUNDS SYMBOLS AND FORMULAE**

**Q1.a) Write the symbol for the following elements:**

- i) Potassium      ii) Hydrogen      iii) Helium      iv) Calcium      v) Oxygen      vi) Argon  
vii) Aluminium      viii) Chlorine      ix) Xenon      x) Iron      xi) Iodine      xii) Copper  
xiii) Sulphur      xiv) Silver      xv) Phosphorous      xvi) Helium      xvii) Neon

Q2. Name the following elements :

- i) Na    ii) N    iii) Ne    iv) Mg    v) F    vi) Kr    vii) Zn    viii) Br    ix) Rn    x) Pb  
xi) C    xii) Hg    xiii) Si    xiv) Pt    xv) Au    xvi) Ar    xvii) Ke    xviii) Xe

Q3. Write the latin name of the following elements:

- |              |             |            |          |           |
|--------------|-------------|------------|----------|-----------|
| i) Potassium | ii) Sodium  | iii) Iron  | iv) Lead | v) Copper |
| vi) Mercury  | vii) Silver | viii) Gold |          |           |

Q4. Write the symbol and valency of the following

- i) Potassium    ii) Sodium    iii) Calcium    iv) Magnesium    v) Zinc    vi) Aluminium  
vii) Chlorine    viii) Bromine    ix) Iodine    x) Oxygen    xi) Sulphur  
xii) Nitrate    xiii) Hydroxide    xiv) Sulphite    xv) Sulphite  
xvi) Carbonate    xvii) Phosphate

Q5. Write the chemical formula of the following

- i) Ammonia                      ii) Carbon dioxide                      iii) Sulphur dioxide                      iv) Nitrogen dioxide  
v) Dinitrogen oxide                      vi) Hydrochloric acid                      vii) Nitric acid                      viii) Sulphuric acid  
ix) Carbonic acid                      x) Phosphoric acid                      xi) Sodium hydroxide  
xii) Calcium hydroxide                      xiii) Ammonium hydroxide                      xiv) Sodium chloride  
xv) Copper sulphate                      xi) Potassium nitrate                      xii) Calcium carbonate  
xiii) Ammonium chloride                      xiv) Zinc oxide                      xv) Iron sulphide

**TOPIC : SEPARATION OF SUBSTANCES**

**Q1. Give examples of mixture that can be separated by**

- i) Handpicking      ii) Sieving      iii) Winnowing      iv) Magnetic separation  
v) Sublimation      vi) Crystallization      vii) Sedimentation & Decantation  
viii) Centrifugation      ix) Filtration      x) Evaporation      xi) Distillation  
xii) Separating funnel

O2. Write about -a)principle, b) technique and c) examples for the following methods of separation

- i) Handpicking      ii) Sieving      iii) Winnowing      iv) Magnetic separation  
v) Sublimation      vi) Crystallization      vii) Sedimentation & Decantation  
viii) Centrifugation      ix) Filtration      x) Evaporation      xi) Distillation  
xii) Separating funnel

Q3. Draw a neat labeled diagram for the techniques used for separation of

- i) Ammonium chloride from a mixture of ammonium chloride and sodium chloride
- ii) Chalk particles from a mixture of chalk and water
- iii) Salt from sea water without recovery of the water
- iv) Salt from sea water with recovery of the water in the pure form
- v) Kerosene from a mixture of kerosene and water

Q4. Identify the method used for separation of

- i) Pebbles from pulses      ii) Barn from wheat flour      iii) Husk from wheat
- iv) Iron from plastic      v) Ammonium chloride from sodium chloride
- vi) Pure copper sulphate from impurities      vii) Sand from water      viii) Milk from cream
- ix) Tea leaves from tea      x) Salt from sea water      xi) Oil from water
- xii) Chalk from a mixture of chalk and water      xiii) Pure water from sea water
- xiv) Kerosene from mixture of kerosene and water.

Q5. Explain why-

- i) If it rains after dust storm, the air becomes clear
- ii) When hot water is poured in a pot containing tea leaves, the tea leaves float but they sink within few minutes.

Q6. Which of the two will dissolve more sugar: cold water or warm water? Why?

### **TOPIC :CHANGES AROUND US**

Q1. Distinguish between and give examples for

- i) Natural changes and man-made changes      ii) Reversible changes and irreversible changes
- iii) Slow changes and fast changes      iv) Periodic changes and Non-periodic changes
- v) Desirable changes and undesirable changes      vi) Physical changes and chemical changes
- vii) Endothermic changes and exothermic changes

Q2. Identify whether the following changes are physical or chemical changes and give reason for your answer:

- i) Melting of ice      ii) Burning of magnesium ribbon      iii) Dissolution of salt to water
- iv) Addition of iron to acid      v) Heating of platinum wire      vi) Burning of sulphur powder
- vii) Magnetization of iron      viii) Rusting of iron

Q3. Define with one example each - a) Electrochemical reaction      b) Photochemical reaction

Q4. Explain why –

- i) Charring of sugar is chemical change
- ii) Slaking of lime is exothermic change
- iii) Dissolution of glucose in water is endothermic change

Q5. Explain how

- i) Iron blade is fixed to the wooden handle of the tools used to dig soil
- ii) Metal rim is fixed on wooden wheel

### **SYLLABUS**

UNIT 3, 4 & 5 : WATER

UNIT 6, 7 & 8 : SEPARATION OF SUBSTANCES

UNIT 9 & 10 : CHANGES AROUND US

UNIT 11, 12 & 13 : ELEMENTS, COMPOUNDS SYMBOLS AND FORMULAE

UNIT 14 & 15 : AIR AROUND US