

CLASS NOTES

Class: VII

Topic: Worksheet

Subject: Science

Chapter 5 : Acids, Bases and Salts

Multiple Choice Questions

1. Which one is an organic acid?

- a. Sulphuric acid
- b. Hydrochloric acid
- c. Nitric acid
- d. Lactic acid

2. Acid turns blue litmus

- a. Red
- b. Orange
- c. Pink
- d. green

3. Which of the following is a strong acid?

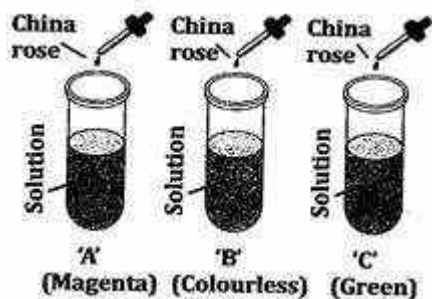
- a. Citric acid
- b. Acetic acid
- c. Malic acid
- d. Sulphuric acid

4. Which gas is released when acid reacts with metals?

- a. Hydrogen
- b. Oxygen
- c. Nitrogen
- d. Carbon dioxide

5. DIRECTIONS: On the basis of following picture answer the questions given below: In three test- tubes 'A', 'B', 'C' with solutions of different substances were added a few drops of China rose indicator. The colours shows in these test-tubes were magenta, colourless and green respectively Select the correct set

indicating the substance whose solution are there in these test-



tubes.

- a. A- Sugar solution, B-Lime water, C-Lime juice
- b. A-Sugar solution, B-Lime juice, C-Lime water
- c. A- Lime water, B-Sugar Solution, C-Lime juice
- d. A-Lime juice, B- Sugar solution, C- Lime water

6. Match the following:

Column A

- a. Hydrochloric acid
- b. Carbonic acid
- c. Sodium hydroxide
- d. Turmeric
- e. Blue litmus

Column B

- i. Natural indicator
- ii. Turns red in acid
- iii. Strong acid
- iv. Organic acid
- v. Strong base

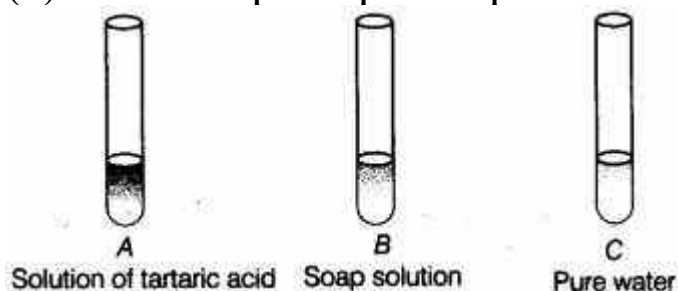
7. Fill in the blanks:

- a. When acid and base react together a new compound called ----- is formed.
- b. All acids contain -----.
- c. Metal on heating or burning produces ----- of metals.
- d. Turmeric is a ----- indicator.
- e. Minerals acids are obtained from -----.

Subjective Questions:

8. You are provided with three test tubes A, B and C as shown in figure with different liquids. What will you observe when you put
- (a) a piece of blue litmus paper in each test tube?
 - (b) a piece of red litmus paper in each test tube?

(c) a few drops of phenolphthalein solution to each test tube?



9. Classify the following as organic and mineral acids?

Hydrochloric acid, Citric acid, Malic acid, Nitric acid, Oxalic acid, Sulphuric acid.

10. Name the acid which is present in each cell of our body. What is the role of that acid in the cell of the human body?

11. Baking soda does not change colour of dry litmus paper. Explain why?

12. What are salts? Give example.

13. Complete the following table

Found in	Name of acid
Vinegar	_____
Ant's sting	_____
Citrus fruits such as oranges, lemons, etc.	_____
Curd	_____
Spinach	_____
Amla, Citrus fruits	_____
Tamarind, grapes, unripe mangoes, etc.	_____

Class Notes

Class: VII

Topic:
CHAPTER 4: WORKSHEET - HEAT

Subject: SCIENCE

1. Which of the following is a good conductor of heat?
 - (a) Iron
 - (b) Steel
 - (c) Aluminium
 - (d) All of these
2. A device used to measure human body temperature is:
 - (a) Clinical thermometer
 - (b) Laboratory thermometer
 - (c) Maximum minimum thermometer
 - (d) None of these
3. What is the range of the temperature reading of a clinical thermometer?
 - (a) $35^{\circ}\text{C} - 42^{\circ}\text{C}$
 - (b) $-10^{\circ}\text{C} - 110^{\circ}\text{C}$
 - (c) $0^{\circ}\text{C} - 100^{\circ}\text{C}$
 - (d) $32^{\circ}\text{C} - 42^{\circ}\text{C}$
4. The process of transferring of heat without any contact between the source of heat and the object is called:
 - (a) conduction
 - (b) convection
 - (c) radiation
 - (d) induction
5. Conduction is the method of transfer of heat in:
 - (a) liquids
 - (b) solids
 - (c) gases
 - (d) vacuum
6. What is the SI unit of temperature?
 - (a) Kelvin
 - (b) Celsius
 - (c) Fahrenheit
 - (d) None of these
7. Examine the image and identify the phenomenon –



- (a) Conduction
- (b) Land breeze
- (c) Sea breeze
- (d) Both b and c

8. Liquids and gases transfer the heat by:

- (a) radiation
- (b) conduction
- (c) convection
- (d) all of these

9. A beggar wrapped himself with a few layers of newspaper on a cold winter night. This helped him to keep himself warm because:

- (a) friction between the layers of newspaper produces heat
- (b) air trapped between the layers of newspaper is a bad conductor of heat
- (c) newspaper is a conductor of heat
- (d) newspaper is at a higher temperature than the temperature of the surroundings

10. The normal temperature of human body is

- (a) 37 K
- (b) 37°F
- (c) 37°C
- (d) All of these

11. Choose the correct option and complete the sentence-

Woolen clothes _____.

- (a) keep us cool.
- (b) decrease the body temperature.
- (c) increase the body temperature.
- (d) keep us warm.

12. Examine the image and identify the phenomenon which is occurring in the liquid.

- (a) Convection
- (b) Conduction
- (c) Heating
- (d) Evaporation



13. Which colour absorbs more heat?

- (a) Black
- (b) White
- (c) Blue
- (d) Red

14. Given below are some statements telling correct way of using a thermometer. Identify the statement which is not correct.

- (a) Wash the clinical thermometer before and after using.
- (b) Mercury level before using the clinical thermometer should be below 35°C .
- (c) While reading the clinical thermometer, always hold it by its bulb.
- (d) Place the bulb of the thermometer under the tongue for checking the body temperature.

15. Heat flow is _____.

- (a) always in upward direction.
- (b) always in downward direction.
- (c) in all directions.
- (d) unidirectional.

16. If we add 4 cubes of ice to a tumbler containing tap water.

- (a) heat flows from ice to water.
- (b) heat flows from water to ice
- (c) It can flow in any direction.
- (d) None of the above.

The following are Assertion Reason type of questions. Select the correct option for all 5 questions (17 to 20) from the options given below.

- a) Assertion and reason both are correct statement and reason is correct explanation for assertion.
- b) Assertion and reason both are correct statement and reason is not correct explanation for assertion.
- c) Assertion is correct statement but reason is wrong statement.
- d) Assertion is wrong statement but reason is correct statement.

17. Assertion - There is a lot of concern over the use of mercury in thermometers.

Reason - Mercury is a toxic substance and is very difficult to dispose when the thermometer breaks.

18. Assertion - Iron and copper allows heat to pass through them easily are called conductors.

Reason - Materials which allow heat to pass through them are called insulators.

19. Assertion - The heat from the sun reaches to us by the process of radiation.

Reason - There is no medium in most part of the space between earth and the sun.

20. Assertion - Woolen clothes have fine pores filled with air.

Reason - We wear woolen clothes as they check the conduction of heat from the body to the surroundings and thus keeps the body warm

Fill in the blanks:

1. Heat flows from a body at a ____ temperature to a body at a ____ temperature when they are kept in contact.
2. A mercury thermometer makes use of the property of _____ of liquids on heating.
3. On touching a lump of ice, we feel ____ because some heat passes from our body to the ice.
4. _____ determines the degree of hotness or coldness of a body.
5. Smooth and shiny surfaces are good _____ of heat.
6. Black and dull surfaces are good _____ of heat.
7. The S.I. unit of temperature is _____.
8. Dark colours are good _____ of heat.

Answer the following questions:

1. What are the two conditions necessary for the conduction of heat?
2. State the three units of temperature.
3. What do you understand by thermal expansion of a substance?
4. Why do we wear dark coloured clothes in winter and light coloured clothes in summer.
5. Convert the given temperature to degree Celsius.
(a) 150° F
(b) 48° F
Convert the given temperature to degree Fahrenheit.
(a) 150° C
(b) 32° C
6. Give reason: -
(a) Rooms are provided with ventilators & exhaust fans near top of side walls.
(b) It is advisable to place room heaters at the ground level for effective heating.
(c) Woollen garments keep us warm?

CLASS NOTES

Class: VII

Topic: PHYSICAL AND CHEMICAL CHANGES

Subject: SCIENCE

Q1: State whether the following statements are: True or False. In case a statement is false, write the correct statement in your notebook.

- (a) Cutting a log of wood into pieces is a chemical change.
- (b) Formation of manure from leaves is a physical change
- (c) Iron pipes coated with zinc do not get rusted easily
- (d) Iron and rust are the same substances
- (e) Condensation of steam is not a chemical change

Q2: Which of the following is a physical change?

- (a) Rusting of iron
- (b) Combustion of magnesium ribbon
- (c) Burning of candle
- (d) Melting of wax

Q3: Which of the following is a chemical change?

- (a) Twinkling of stars
- (b) Cooking of vegetables
- (c) Cutting of fruits
- (d) Boiling of water

Q4: A chemical change may involve

- a) Change in colour only.
- (b) Change in temperature only.
- (c) Evolution of gas only.
- (d) Any or all of the above.

Q5: Which of the following is/are true when milk changes into curd?

- i) Its state is changed from liquid to semi-solid.
- ii) It changes colour.
- iii) It changes taste.
- iv) The change cannot be reversed

Choose the correct option from below.

- (a) (i) and (ii) are correct.
- (b) (ii) and (iii) are correct.
- (c) (i), (iii) and (iv) are correct.
- (d) (i) and (iv) are correct.

Q6: A man painted his main gate made up of iron, to

- (i) Prevent it from rusting.
- (ii) Protect it from sun.
- (iii) Make it look beautiful.
- (iv) Make it dust free.

Which of the above statement(s) is/are correct?

- (a) (i) and (ii)
- (b) (ii) and (iii)
- (c) Only (ii)
- (d) All of the above

Q7: Galvanisation is a process used to prevent the rusting of which of the following?

- (a) Iron
- (b) Zinc
- (c) Aluminium
- (d) Copper

Q8: Paheli's mother made a concentrated sugar syrup by dissolving sugar in hot water. On cooling, crystals of sugar got separated. This indicates a

- (a) Physical change that can be reversed.
- (b) Chemical change that can be reversed.
- (c) Physical change that cannot be reversed.
- (d) Chemical change that cannot be reversed.

Q9: The blue colour of copper sulphate solution changes to green when iron nails are dropped. It is due to the formation of:

- a) Ferrous sulphate
- b) Ferric sulphate
- c) Ferrous oxide
- d) Ferrous sulphide

Q10: Match the items of Column I with the items of Column II

Column I	Column II
(a) Larger crystals	(i) Turns lime water milky
(b) Depositing a layer of zinc on iron	(ii) Physical change
(c) Souring of milk	(iii) Rust
(d) Carbon dioxide	(iv) Sugar candy (Mishri)
(e) Iron oxide	(v) Chemical change
(f) Dissolving common salt in water	(vi) Galvanization

Q11: Why does a magnesium ribbon burn with a dazzling white flame?

Q12: When baking soda is mixed with lemon juice, bubbles are formed with the evolution of a gas. What type of change is it? Explain.

Q13: Explain why burning of wood and cutting it into small pieces are considered as two different types of changes.

Q14: Give an example of a chemical reaction for each of the following situations:

- (a) A change in colour is observed.
- (b) A gas is evolved.
- (c) Sound is produced.

Q15: What is galvanisation?

Q16: What is crystallisation?

Q17: What is rust? How is it formed? Write the chemical formula of rust.

Q18: Give example of two substances that can undergo physical and chemical changes, depending upon the conditions

Q19: Distinguish between the following.

- (i) Physical change and Chemical change
- ii) Exothermic reaction and Endothermic reaction

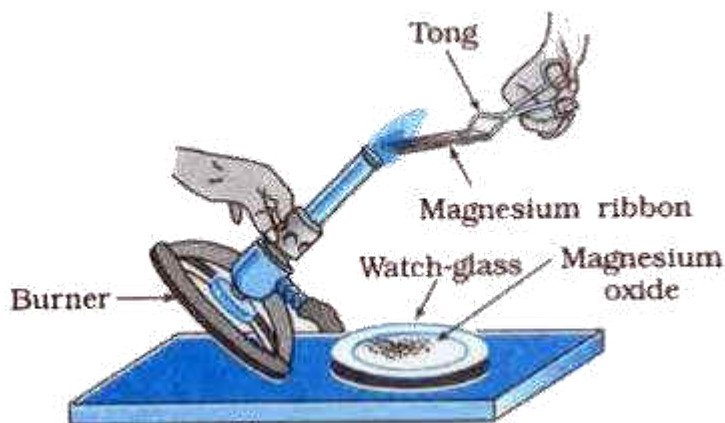
Q20: If you leave a piece of iron in the open for a few days, it acquires a film of brownish substance, called rust.

- (a) Do you think rust is different from iron?
- (b) Can you change rust back into iron by some simple method?
- (c) Do you think formation of rust on iron is a chemical change?
- (d) Give two other examples of a similar type of change.

Q21: Rahul was a student of Class VII. His father purchased a new bicycle for him on his birthday. After few months, he found that the cycle chain and even the handle gets

rusted. His father advised him to apply a coating of paint to the cycle and not to keep it in the open in future. Now, answer the following questions:

- (a) Why his cycle gets rusted?
- (b) What do you mean by rusting of iron?
- (c) What values are shown by Rahul's father?



Q22: In the above experiment, a magnesium ribbon is burnt.

- a) What is the colour of the flame?
- b) Why is it a chemical change?
- c) State the chemical reaction
- d) Why should a magnesium ribbon be cleaned before burning in air?