

**CITY SCHOOL OF EDUCATIONAL INSTITUTE, PANDHURNA**  
**OPEN BOOK EXAMINATION 2020-21**

**Class-9th**  
**Subject- Science**

Time – 3 hour

Max. Mark– 100

**Q1 Choose the correct answer**

**10 Marks**

- 1) Convert the following temperature to the Celsius scale  
a) 293K  
b) 470K
- 2) what is the physical state of water at  
a) 25c  
b) 0c  
c) 100c
- 3) Identify the solution among the following mixture  
a) soil  
b) sea water  
c) air  
d) soda water
- 4) which of the following will show the Tindal effect  
A) salt solution  
b) copper sulphate solution  
c) milk  
d) starch solution
- 5) which of the following is the correct electronic configuration sodium  
a) 2,8  
b) 8,2,1  
c) 2,1,8  
d) 2,8,1
- 6) Isotopes of an element have  
a) The same physical properties  
b) Different chemical properties  
c) Different number of neutrons  
d) Different atomic numbers.
- 7) Number of valence electrons in Cl-ion are:  
a) 16  
b) 8  
c) 17  
d) 18
- 8) Rutherford's alpha-particle scattering experiment was responsible for the discovery of.  
a) Atomic Nucleus  
b) Electron  
c) Proton  
d) Neutron
- 9) Convert the following temperature to the Kelvin scale.  
a) 25° C  
b) 373° C  
c) 2,1,8  
d) 2,8,1
- Convert into mole.  
a) 12 g of oxygen gas  
b) 20 g of water  
c) 22 g of CO<sub>2</sub>

**Q.2 Fill In the Blanks:**

**05 Marks**

- a) Matter is made up of small \_\_\_\_\_.
- b) Evaporation causes \_\_\_\_\_.
- c) As the temperature of a gas decreases, its volume \_\_\_\_\_.
- d) Common salt is \_\_\_\_\_.
- e) Miscible liquids are separated by \_\_\_\_\_.

**Q. 3 True / False.****05 Marks**

- a) Water is homogenous substance.
- b) Iodine can be purified by sublimation.
- c) Crystals can be made of mixtures.
- d) Boiling is the bulk phenomenon.
- e) Water at room temperature is a liquid.

**Q 4 Match the pairs .****05 Marks**

1	Pressure	-	Cubic metre
2	Temperature	-	Kilogram
3	Density	-	Pascal
4	Mass	-	Kelvin
5	Volume	-	Kilogram per cubic metre

**Q. 5 Very Short Answer.****5 x 2 Marks**

- a) What are the characteristics of the particles of the matter?
- b) Why does a desert cooler- cool better on a hot dry day?
- c) What is the boiling point of acetone?
- d) What do you observe in the china dish?
- e) Which group has obtained a material with magnetic properties?

**Q. 6 Short answer type questions .****5 x 3 Marks**

- a) Write the characteristics of particles of a matter?
- b) Suggest a methods to liquefy atmosphere gases ?
- c) What type of clothes should we wear in summer?
- d) What is mint by substance ?
- e) Why do the two components separates?

**Q 7 Long answer type questions. (any Five)****5 x 5 Marks**

- a) How are sol, solution and suspension different from each others?
- b) Which gas from the liquid first as the air is cooled?
- c) How will you separate the crystals from the liquid in the china dish?
- d) What type of mixture are separated by the technique of crystallization?
- e) Explain the law of conservation of mass ?
- f) Explain the atomic mass?
- g) Explain the Rutherford's model of an atom?

**Q.8 Explain the compound microscope with diagram?****05 Marks**

Or

Explain the nucleus with diagram ?