



ST. LAWRENCE HIGH SCHOOL
A JESUIT CHRISTIAN MINORITY INSTITUTION



Sub: Physical Science
Duration: 40 min

Class: 8
Worksheet Solution 22

Date: 29.03.21
Full Marks: 15

ATOMIC STRUCTURE/PROTONS, NEUTRONS AND IONS

Choose the Correct options:

- Who discovered anode rays?
Ans (a) Rutherford (b) **Goldstein** (c) Chadwick (d) Thomson
- Who renamed anode rays as positive rays?
Ans (a) Rutherford (b) Goldstein (c) Chadwick (d) **Thomson**
- What was changed in the discharge tube to obtain anode rays?
Ans (a) Higher voltage (b) Lower pressure (c) **Perforated cathode** (d) Different gas
- Why were anode rays assumed to be positive?
Ans (a) **attracted to negative electrode** (b) attracted to magnetic north (c) attracted to magnetic south (d) Attracted to positive electrode
- The mass of the anode rays obtained from different gases in the tube were
Ans (a) same (b) **different** (c) not fixed (d) No mass
- When was the neutron discovered?
Ans (a) 1929 (b) **1932** (c) 1941 (d) 1944
- Which element used in the discharge tube gave protons?
Ans (a) **Hydrogen** (b) Helium (c) Nitrogen (d) Oxygen
- Which element was used in the discovery of neutrons?
Ans (a) Boron (b) **Beryllium** (c) Bismuth (d) Bromine
- What are alpha particles?
Ans (a) **Helium ions** (b) Hydrogen ions (c) Sodium ions (d) Oxygen ion
- In which kind of a reaction can an atom change?
Ans (a) Chemical reaction (b) **Nuclear reaction** (c) Endothermic reaction (d) All of these
- Who discovered neutrons?
Ans (a) Rutherford (b) Goldstein (c) **Chadwick** (d) Thomson
- An ion is charged because the number of proton and electrons are
Ans (a) Same (b) **Different** (c) Variable (d) None of these
- What is the charge on a proton?
Ans (a) +1 unit (b) $1.6 \times 10^{-19} \text{ C}$ (c) 1 C (d) **Both (a) and (b)**
- Which subatomic particle plays a major role in the formation of compounds?
Ans (a) **electron** (b) proton (c) neutron (d) quark
- When does an ion become negative?
Ans (a) after losing electron (b) **On gaining electron** (c) On being broken down to subatomic particles (d) All of these