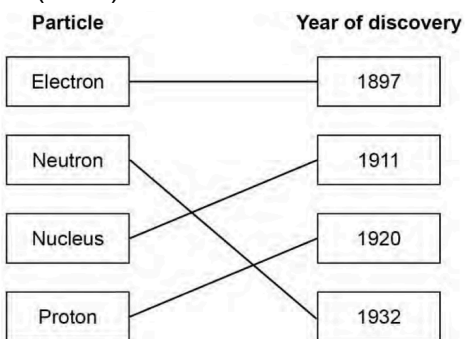


Q1.(2023)



Q2.(2023)

a)

both the alpha particles and the (gold) nucleus have positive / same charge

so the alpha particle and the gold nucleus repel each other

b)

particle **B** passes closer to the nucleus

so experiences a stronger (repulsive) force

or

so experiences a stronger electric field

c)

the atom is mostly empty space

d)

in the Bohr model the electrons orbit (the nucleus) at specific distances

(whereas in the nuclear model the electrons can orbit at a continuous range of distances)

e)

to move to a higher energy level
an electron absorbs energy
from electromagnetic radiation

to move to a lower energy level
an electron emits energy in the
form of electromagnetic
radiation