

SCH3U Atomic History and Models Quiz S23

Answer Section

MULTIPLE CHOICE

1.

ANS: A

PTS: 1

REF: K/U

OBJ: 1.2

STA: MC1.01
2.

ANS: E

PTS: 1

REF: K/U

OBJ: 1.3

STA: MC1.01
3.

ANS: A

PTS: 1
4.

ANS: A

PTS: 1
5.

ANS: B

PTS: 1
6.

ANS: D

PTS: 1
7.

ANS: C

PTS: 1
8.

ANS: B

PTS: 1
9.

ANS: D

PTS: 1
10.

ANS: C

PTS: 1
11.

ANS: A

PTS: 1

MATCHING

12.

ANS: D

PTS: 1
13.

ANS: B

PTS: 1
14.

ANS: E

PTS: 1
15.

ANS: A

PTS: 1
16.

ANS: C

PTS: 1
17.

ANS: F

PTS: 1
18.

ANS: H

PTS: 1
19.

ANS: G

PTS: 1

SHORT ANSWER

20.

ANS:

a) An atom is the **smallest** particle of matter of a particular element. Altering the subatomic elements alters the properties. Protons in particular, cannot be divided without changing the properties of the atom

b) An atom is now know to be made of a variety of subatomic particles and is therefore **divisible**

PTS: 1

21.

ANS:

Both: spherical, subatomic particles (electrons), both had positive and negative components

Differences: Thompson has a region of positive, while Rutherfords model has positive particles. Electrons move around the nucleus in Rutherford’s, but are embedded in positive cloud in Thompson’s

PTS: 1

22.

ANS:

	Z	A	Neutrons	Electrons	Element Name
A.	20	40	20	20	Calciuim
B.	18	40	22	18	Argon-40
C.	18	36	18	18	Argon-36
D.	16	36	20	16	Sulfur

- a) check table above for blanks filled in
- b) B and C are isotopes of argon
- c) They have the same number of protons and are therefore the same element, but have different atomic masses due to differing numbers of neutrons and are therefore isotopes.
- Fyi For more variants, see the isotope chart in 3U atomic history folder

PTS: 1

23. ANS:

- atoms are roughly spherical in shape
- atoms are the smallest unit of elements
- atom of different elements have different masses

PTS: 1