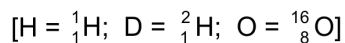


# Unit 1: Atomic structure

## Subunit 1.1: Particles in the atom and atomic radius

### Topical Question No: 1

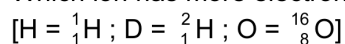
- 3 Which ion has both more electrons than protons and more protons than neutrons?



- A  $\text{D}^-$                       B  $\text{H}_3\text{O}^+$                       C  $\text{OD}^-$                       D  $\text{OH}^-$

### Topical Question No: 2

- 3 Which ion has more electrons than protons and more protons than neutrons?



- A  $\text{D}^-$                       B  $\text{H}_3\text{O}^+$                       C  $\text{OD}^-$                       D  $\text{OH}^-$

### Topical Question No: 3

- 2 Use of the Data Booklet is relevant to this question.

In which species are the numbers of protons, neutrons and electrons **all** different?

- A  ${}^{19}_9\text{F}^-$                       B  ${}^{23}_{11}\text{Na}^+$                       C  ${}^{31}_{15}\text{P}$                       D  ${}^{32}_{16}\text{S}^{2-}$

### Topical Question No: 4

- 32 Use of the Data Booklet is relevant to this question.

Which statements are correct when referring to the atoms  ${}^{23}\text{Na}$  and  ${}^{24}\text{Mg}$ ?

- 1 They have the same number of full electron orbitals.
- 2 They have the same number of neutrons.
- 3 They are both reducing agents.

## Answer Key

1. Error
2. Error
3. Error
4. Error