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CHEMISTRY

MULTIPLE CHOICE - 1

ATOMIC STRUCUTRE

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Atomic Structure - 1

1. Which one of the following has the same number of electrons as an alpha parti	מרי?

(A) H

(B) H⁺

(C) H_2

(D) He

2. Which of the following elements has the largest second ionization energy?

(A) O

(B) F

(C) Ne

(D) Ne

3. Which one of the following represents the configuration of the three electrons of highest energy for the ground state of an element in group III?

(A) $1s^1 2s^1 2p^1$

(B) $2s^1 2p^2$

(C) $3p^3$

(D) $4s^2 4p^1$

4. Which one of the determines the position of the an element in the periodic table.

- (A) chemical reactivity
- (B) first ionization energy
- (C) number of electrons in outer orbital
- (D) number of protons in the nucleus of its atom

5. Which of the following electronic configurations represent an element that forms a simple ion with a charge of -3?

(A)
$$1s^2 2s^2 2p^6 3s^2 3p^1$$

(B)
$$1s^2 2s^2 2p^6 3s^2 3p^3$$

(C)
$$1s^2 2s^2 2p^6 3s^2 3p^6 3d^1 4s^2$$

(D)
$$1s^2 2s^2 2p^6 3s^2 3p^6 3d^3 4s^2$$

6.	In which species	are the number of electrons ar	d neutrons equal?
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- (A) ⁹₄Be
- (B) $^{19}_{9}$ F
- (C) $^{23}_{11}$ Na⁺
- (D) ${}^{18}_{8}O^{2-}$

7. Use of the Data Booklet is relevant to this question.

Which particle would, on gaining an electron, have a half-filled set of p orbitals?

- (A) C⁻¹
- (B) N
- (C) Si

(D) P+

8. Which of the following ions contains an unpaired electron?

- (A) Ca²⁺
- (B) Cu²⁺
- (C) K+

(D) Ti⁴⁺

9. What is the order of increasing energy of the listed orbitals in the atom of titanium?

- (A) 3s 3p 3d 4s
- (B) 3s 3p 4s 3d
- (C) 3s 45 3p 3d
- (D) 4s 3s 3p 3d

10. Which of the following formulae represents a particle with the composition 1 proton, 1 neutron and 2 electrons?

[D represents deuterium, ²H]

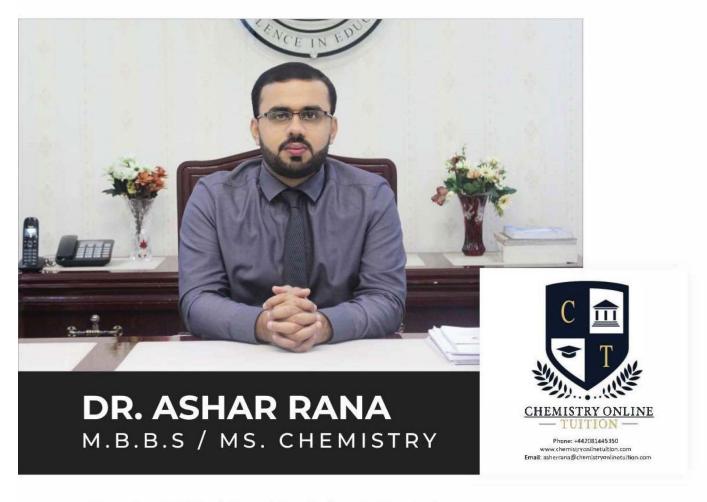
(A) D

(B) D-

(C) H⁻

(D) He





- · Founder & CEO of Chemistry Online Tuition Ltd.
- · Completed Medicine (M.B.B.S) in 2007
- Tutoring students in UK and worldwide since 2008
- · CIE & EDEXCEL Examiner since 2015
- · Chemistry, Physics, Math's and Biology Tutor

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