

21. The charge of an ion P is 2-, in which it contains 2 inner electrons and eight outermost electrons. The electronic configuration of atom P is;

- A. $1s^2 2s^2 2p^6$
- B. $1s^2 2s^2 2p^4$
- C. $1s^2 2s^2 2p^6 3s^2$
- D. $1s^2 2s^2 2p^6 3s^2$

22. Which of the following electronic configuration represent an element that form ion with a charge of 2-.

- A. $1s^2 2s^2 2p^6 3s^2$
- B. $1s^2 2s^2 2p^6 3s^2 3p^2$
- C. $1s^2 2s^2 2p^6 3s^2 3p^4$
- D. $1s^2 2s^2 2p^6 3s^2 3p^5$

23. Choose the most suitable reason of the anomaly in electronic configuration of Chromium with the proton number of 24.

- A. Stability of fully filled 3d orbital.
- B. Stability of half-filled orbital.
- C. Stability of half-filled 4s orbital.
- D. Stability of half-filled 3d orbital.

24. Determine the electronic configuration of the most stable ion of element X-25.;

- A. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^5$
- B. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^6$
- C. $1s^2 2s^2 2p^6 3s^2 3p^6 3d^5$
- D. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10}$

25. Shown below are a set of quantum number of the highest energy electron in P^+ ion. Determine the electronic configuration of P atom.

$$n=4, l=0, m=0, s= +\frac{1}{2}$$

- A. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^1$
- B. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2$
- C. $1s^2 2s^2 2p^6 3s^2 3p^6$
- D. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^1$