**Atoms: Electronic Configuration (ADV): Quiz 4b**

Please show work where necessary!

/5

*In the space below, write the core electron configurations of the following elements:*

1. Iodine: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Fe+3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. [Xe] 6s24f145d8 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. [Xe] 6s24f7 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Determine if the following electronic configuration is valid**. *If they are valid simply write valid, if not valid explain why.*

1. [Ar]4s23d4

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answers:

1. Iodine **[Kr] 5s24d105p5**



1. Fe+3 **[Ar] 4s03d5**
2. [Xe] 6s24f145d8 **platinum**
3. [Xe] 6s24f7 **europium**
4. [Ar]4s23d4 **not valid (Chromium is an exception [Ar]4s13d5)**