

**5. The largest oxidation number exhibited by an element depends on its outer electronic configuration. With which of the following outer electronic configurations the element will exhibit the largest oxidation number?**

(i)  $3d^1 4s^2$

(ii)  $3d^3 4s^2$

(iii)  $3d^5 4s^1$

(iv)  $3d^5 4s^2$

**Solution:**

Option (iv) is the answer