Provide the IUPAC name for the following compound.

- A) 3-hydroxy-1-(1,2-dimethylpropoxy)-2-pentanone
- B) 3-hydroxy-1-(3-methyl-2-butoxy)-2-pentanone
- C) 1-(1,2-dimethylpropoxy)-pentan-4-on-3-ol
- D) 1-(3-methyl-2-butoxy)-pentan-4-on-3-ol
- E) None of the above