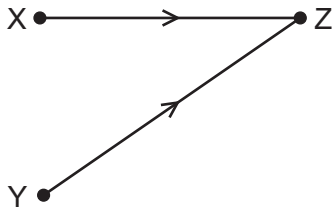30 Microwaves are emitted from two sources at points X and Y. The two waves meet at point Z. The diagram shows the paths of the two waves.

The waves emitted from points X and Y are coherent.

What is a direct consequence of the two waves being coherent?

A   There is a constant difference in the path lengths YZ and XZ.

B   There is a constant difference in phase between the two waves at Z.

C   There is a constant non-zero difference in frequency of the two waves at Z.

D   There is a constant non-zero difference in amplitude of the two waves at Z.