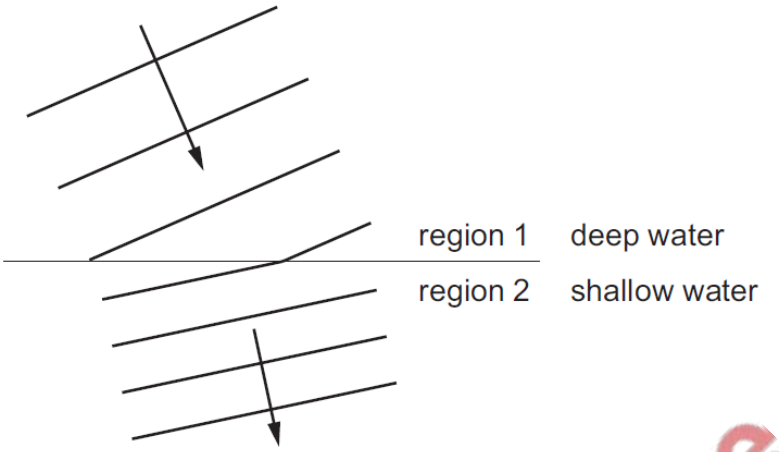
Waves – 2019 Nov

1. 0625/11/O/N/19/No.21

The diagram shows wavefronts on the surface of water, viewed from above.



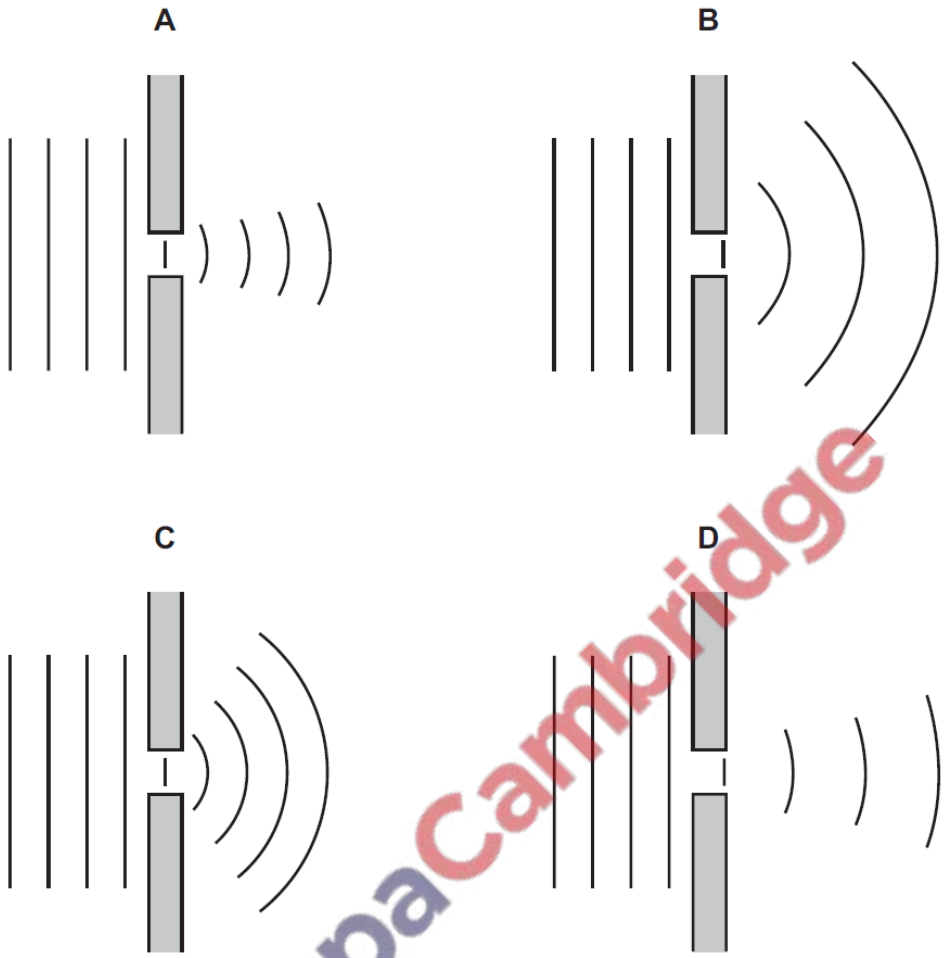
Which row is correct for the wavefronts moving from region 1 to region 2?

	name of process	the speeds of the wavefronts in regions 1 and 2 are
A	diffraction	different
B	diffraction	the same
C	refraction	different
D	refraction	the same

2. 0625/11,12,13/O/N/19/No.22

Plane water waves approach a narrow gap in a barrier.

Which diagram shows the diffraction pattern that would occur?



3. 0625/12/O/N/19/No.21

Which row correctly describes the vibrations of a transverse wave and also gives a correct example of a transverse wave?

	description of vibration	example of a transverse wave
A	right-angles to the wave direction	sound
B	right-angles to the wave direction	water wave
C	parallel to the wave direction	sound
D	parallel to the wave direction	water wave

4. 0625/13/O/N/19/No.21

Which type of wave is **not** an example of a transverse wave?

A sound wave

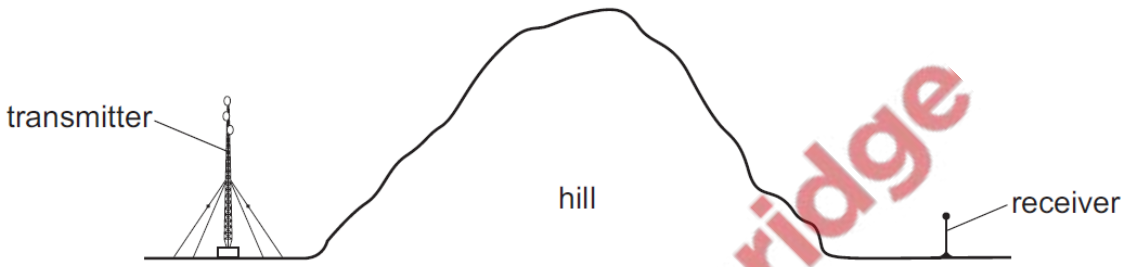
B microwave

C infrared wave

D radio wave

5. 0625/21,22,23/O/N/19/No.21,22,21

A large hill blocks the direct path between a transmitter of radio waves and a receiver, as shown.



The receiver picks up the signal from the transmitter even though the radio waves do not travel through the hill.

Which row is correct?

	A possible way for this to happen is	A stronger signal is received using
A	diffraction round the hill.	longer wavelengths.
B	diffraction round the hill.	shorter wavelengths.
C	refraction round the hill.	longer wavelengths.
D	refraction round the hill.	shorter wavelengths.