

Nom et Prénoms : \_\_\_\_\_

Note: **/10**

# M1-SOAC TR2

## Chapter 2: Surface Waves

### Deep and Shallow Water waves



## Barème

14

**Question a:**

For a canal of depth 5 m, calculate the phase speed and group speed for waves of wavelength (i) 1 m, (ii) 100 m.

[illegible]

**Question b:**

**Waves arrive at a shallow beach.** Further from the coast the waves have a wavelength of 20 m and a height of 50 cm, and the water is 5 m deep.

- 1) Near the coast, at a depth of 1 m, what is the wavelength?
- 2) Near the coast, at a depth of 1 m, what is the wave height?