Name: _____

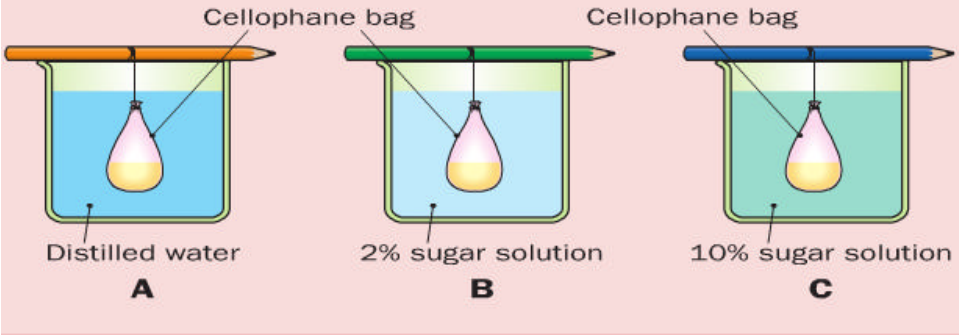
Q.1 A membrane that allows some substances through is called a _____ _____. (3)

Q.2 What is diffusion? _____ _____ (3)

Q.3 Give the full definition of osmosis. _____ _____ _____ _____ (6)

Q.4

7 Three cellophane bags were half filled with a 2% sugar solution. The bags were then placed in three different solutions as shown in Figure 13.13.



13.13

(a) Which solution is **(i)** more concentrated, **(ii)** less concentrated, **(iii)** the same concentration, with reference to the contents of the bags?

(b) Explain, giving reasons, what will happen to the mass of each bag.

(a) (i) _____ (3)

(ii)_____ (3)

(iii)_____ (3)

(b) A = _____(3)

B = _____(3)

C = _____(3)

Q.5

(a) (i) In relation to structures such as the cell membrane, explain the term *selective permeability*.

_____

(ii) Suggest an advantage to the cell of having a selectively permeable membrane.

_____

(iii) Name **two** substances that enter a human muscle cell by diffusion.

_____

(b) (i) Explain the term *turgor*.

_____

(ii) Give a feature of a plant cell that allows it to remain turgid for long periods.

_____

(iii) Suggest a way in which turgor is of value to plants.

_____

Q.6

When demonstrating osmosis:

1. For what purpose did you use Visking tubing, potato tissue or some similar material?

_____

2. At the end of the demonstration, how did you conclude that osmosis had occurred?

_____