



# PARISHRAMA NEET ACADEMY

## TARGET NEET - 2022

### BIOLOGY

#### TOPIC: TRANSPORT IN PLANTS

1. (2)
2. (3)  
Simple diffusion is a type of transport taking place across the biomembranes without the help of proteins. Diffusion is a slow process. Molecules move in random fashion, the net result being substances moving from regions of higher concentration to regions of lower concentrations.
3. (1)
4. (4)  
The sodium-potassium pump is an active transport mechanism that is driven by the breakdown of ATP and works through a series of conformational changes in the trans-membrane protein.
5. (1)  
When cell having solute concentration of  $0.4\text{M}$  is placed in a saline water of concentration  $0.1\text{ M}$ , the outer medium, i.e., the saline water is hypotonic to the cell. Hence, the water will move inside the cell (endosmosis) and as a result the cell will swell up.
6. (4)
7. (3)
8. (1)
9. (4)  
Osmotic pressure is defined as the pressure required to completely stop the entry of water into an osmotically active solution across a semipermeable membrane. It is numerically equal to osmotic potential (or solute potential) but opposite in sign. The osmotic pressure of pure solvent at  $25^\circ\text{C}$  and  $1\text{ atm}$  is zero.
10. (4)  
If an osmometer filled with  $0.5\text{ M}$  solution of  $\text{NaCl}$  is immersed in a hypertonic solution (having higher osmotic concentration), the level of solution contained in it will go down (shrink) due to exosmosis (osmotic withdrawal of water).  $0.75\text{ M}$  solution is hypertonic to  $0.5\text{ M}$  solution. Hence, the level of solution in osmometer containing  $0.5\text{ M}$  solution, if dipped in  $0.75\text{ M}$  solution will go down.