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Subject Biology

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Chemical communication

→ It helps in overcoming the limitations of electric communication.

Coordination in Plants

→ There are three types of movements in plants.

(i) Independent of growth

(ii) Dependent on growth

Independent of growth

→ Independent growth has immediate response to the stimulus.

- Plants use electrical-chemical means to convey information from cell to cell.
- For movement to happen, cells change their shape by changing the amount of water in them, resulting in swelling or shrinking of cells.

Example: Drooping of leaves of 'Touch-me-not' plant on touching it.

Dependent on growth

→ These movements are tropic movements i.e., directional movements in response to stimulus.

- **Tendrils:** The part of tendril away from the object grows more rapidly as compared to the part near the object. This causes circulating of tendril around the object.
- **Phototropism:** Movement towards light.
- **Geotropism:** Movement towards/away from gravity.

- Chemotropism: Growth of pollen tube towards ovule.
- Hydrotropism : Movement towards water.