

VEER KUNWAR SINGH UNIVERSITY - ARA

B.Sc.

ZOOLOGY (HONOURS) -

PART - III

PAPER - VI

FROM

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B. SC - PART - III

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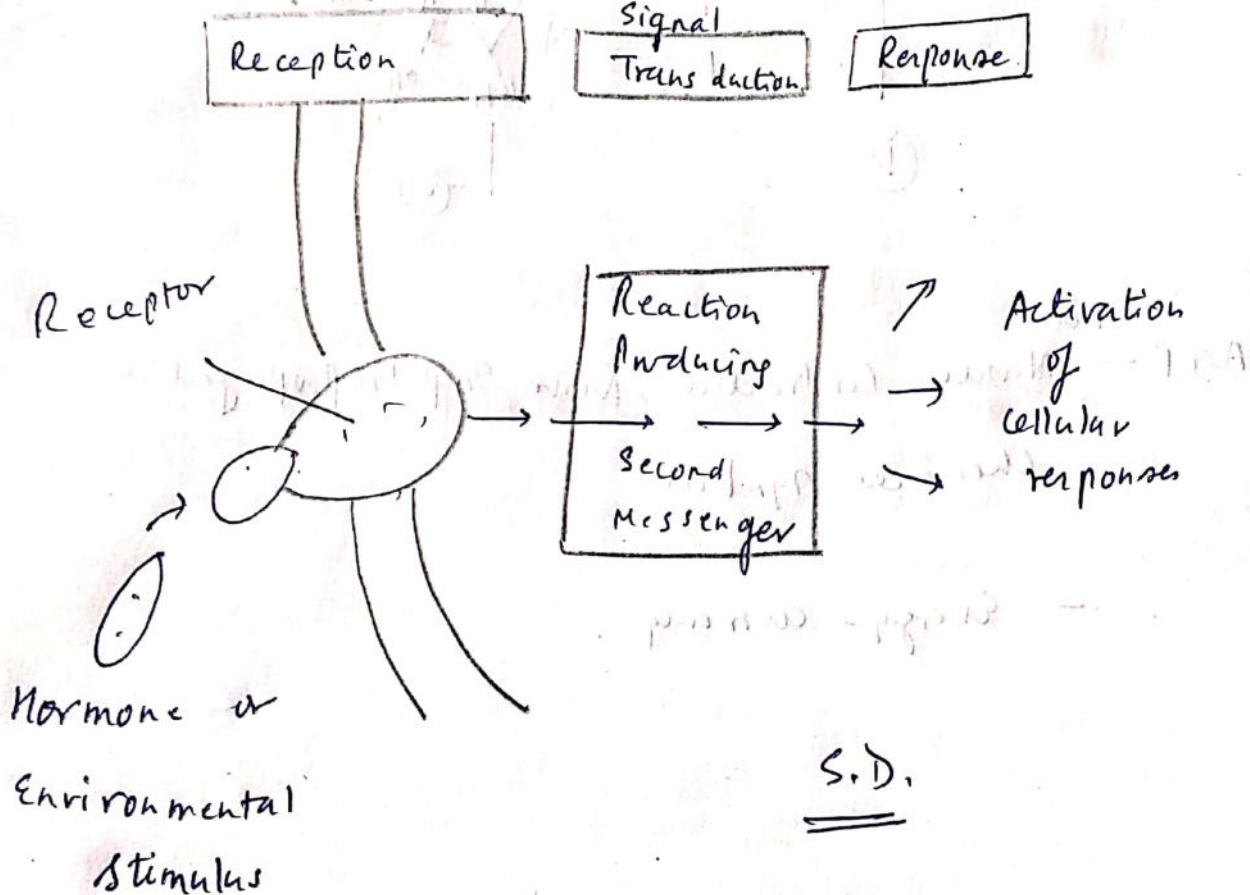
PAPER - VI

SIGNAL - TRANSDUCTION

(S.D)

Cytoplasm

cell wall



or S.D. - is the process by which a chemical or physical signal is transmitted through a cell as a series of molecular events, most commonly protein phosphorylation catalyzed by - protein kinase, which

②
Ultimately results in a cellular response

PHASE OF SIGNAL TRANSDUCTION

3 Phases are recorded.

① RECEPTION: A protein at the cell-surface detect chemical signals

② TRANSDUCTION - A change in protein stimulates other changes including signal-transduction pathways

③ RESPONSE - Almost any cellular Activity

o It's the process of changing cellular activity based on ~~extra~~ external signals.

o This occurs in most living things and allow them to respond to major environmental changes, but perhaps no organisms take this more seriously than plants

o There are 4 basic categories of chemical signaling found in multicellular -

- ① Paracrine Signaling
- ② Autocrine Signaling
- ③ Endocrine Signaling
- ④ Signaling by direct ^{Contact}

(3)

- ° Epinephrine - is used as a sample messenger to trigger the release of glucose from cells in the liver.
- ° The G-protein, adenylyl cyclase, cAMP, and protein kinases are examples of signal transduction.

_____ the End -

Next class - DNA, synthesis

R.V.S / 12/1/2020