

Biology - 12th Class Biology Chapter 17 Short Questions Preparation

Q1. What is action of nicotine on coordination?

Ans 1: Nicotine affects post synaptic membrane in CNS and PNS. It minimizes the action of acetylcholine on the nicotine receptors. So it is stimulant of nerve impulse. It increases the heart beat rate, blood pressure and digestive tract mobility. Nicotine may cause vomiting, diarrhoea and even cause water retention relation by the kidneys.

Q2. Write down the role of hypothalamus in chemical coordination.

Ans 1: It is a part of fore brain. It is here that many of the sensory stimuli of nervous system are converted into hormonal responses. It is believed that oxytocin and ADH are produced in hypothalamus.

Q3. Give the role of insulin and glucagon.

Ans 1: Insulin controls the blood sugar level by different ways. It may be as

Ans 2: By converting glucose into glycogen

Ans 3: By converting glucose into proteins or fats

Ans 4: By increasing its utilization in the cell

Ans 5: By inhibiting the conversion of glycogen into glucose
Glucagon increases the blood sugar level. This is done by converting stored glycogen into glucose.

Q4. What is the role of anti diuretic hormone (ADH)?

Ans 1: ADH secretion causes decrease in blood pressure, blood volume and osmotic pressure of the blood detected by osmoreceptors in the hypothalamus. It mainly controls the concentration of urine.

Q5. Define receptors. Give their types.

Ans 1: Receptors are the sensory organs which receive stimulus and transfer it to associative neurons via sensory neurons for further action e.g., eye, ear, nose, skin and tongue.

Q6. Compare photoreceptors with chemoreceptors.

Ans 1: Chemoreceptors These are sensitive for chemical changes. These are for smell, taste and for blood carbon dioxide and oxygen, glucose, amino acids and fatty acids (receptors in hypothalamus)

Ans 2: Photoreceptors Electromagnetic receptors or photoreceptors respond to stimuli of light for example in eyes, rods and cones

Q7. What is cushing's disease? Give its symptoms.

Ans 1: In cushing's disease too much cortical hormones are produced. Symptoms include an excessive protein breakdown resulting muscular and bone weakness.

Q8. Write down four functions of auxin.

Ans 1: Function of auxin are

Ans 2: Auxin promote cell elongation

Ans 3: It promotes cell division in cambium

Ans 4: It can induce parthenocarpy

Ans 5: It promotes apical dominance

Q9. Name the synthetic auxin used as selective weed killer.

Ans 1: 2-4D (2,4 Dichlorophenoxy acetic acid) is selective weed killer.

Q10. How Ca^{++} concentration in human blood is regulated?

Ans 1: Calcium level in human is controlled by the parathormone. Low level of calcium ions in the blood stimulate parathyroid directly to increase the parathormone production whereas high level of calcium ions in the blood suppresses its release.