DPP
DAILY PRACTICE PROBLEMS

Class : XIth
Date :

Solutions

Subject : BIOLOGY
DPP No. : 8

Topic :- Chemical Coordination & Integration

1 **(a)**
1 to 2 million

2 **(a)**
Glucagon is secreted by α- cells of **islets of Langerhans** in **pancreas**.
Insulin is secreted by β- cells of **islets of Langerhans**.
Somatostatin is secreted by δ- cells of **pancreas.**

3 **(d)**
Diabetes mellitus is a common endocrine disorder caused by hyposecretion of insulin hormone. Insulin hormone is secreted by the β- cells of the pancreas. The insulin controls the glucose level in blood.

4 **(d)**
Both (a) and (c)

5 **(a)**
Hydrophilic hormones Generally are protein, polypeptide, hormones. They interact with cell membrane receptors, *e.g.*, FSH glycogen, epinephrine.
Hydrophobic hormones Generally are steroids in nature. They interact with nuclear receptors *e.g.*, Estrogen do thyroxine

6 **(d)**
The pineal gland (epiphysis) secretes the hormone melatonin, which regulates the working of gonads by inhibiting gonadotropins and their effects.

7 **(b)**
Atrial Natriuretic Factor (ANF) is made up of peptide

8 **(d)**
FSH (Follicle Stimulating Hormone) is secreted from anterior lobe of pituitary gland. It is secreted both in males and females. In males, FSH stimulates spermatogenesis and development of seminiferous tubules whereas in females it stimulates formation and growth of ovarian follicles in ovary.

10 **(c)**
MSH released by pars intermedia, acts on the melanocytes (melanin containing cells) and regulates pigmentation of skin

11 **(b)**
Neurohypophysis

12 **(a)**

Glucocorticoids stimulate, gluconeogenesis, lipolysis and proteolysis and inhibit cellular uptake and utilisation of amino acids

14 **(b)**

Females have a pair of ovaries located in the abdomen. Ovary is the primary female sex organ, which produces one ovum during each menstrual cycle. In addition ovary also produces two group of steroid hormones called **estrogen** and **progesterone**. Ovary is composed of ovarian follicle and stromal tissue

15 **(b)**

Prolactin is secreted by the lactotopes cells of anterior pituitary. In humans, it may act as a mild growth hormone but its main physiological effect is to activate growth of breast during pregnancy and secretion of milk by mammary glands after childbirth. That's why, it is often referred to as 'maternity hormone'.

16 **(a)**

Follicles

17 **(d)**

Cystic duct transports insulin and glucagon to target organ.

8 **(b)**

On the basis of their chemical nature, insulin, glucagon, etc. are peptide (protein) hormones; epinephrine is amino acid derivative; and estradiol, testosterone, progesterone, etc. are steroids.

19 **(a)**

Gastric inhibitory polypeptide (GIP), also known as the **glucose-dependent insulinotropic peptide** is a member of the secretin family of hormones. It has traditionally been called gastrointestinal inhibitory peptide or gastric inhibitory peptide and was believed to neutralise stomach acid to protect the small intestine from acid damage, reduce the rate at which food is transferred through the stomach and inhibit the GI motility and secretion of acid

20 **(a)**

Water is reabsorbed in distal convoluted tubules under the influence of antidiuretic hormone (ADH). ADH is secreted by posterior lobe of pituitary gland.

ANSWER-KEY										
Q.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
A.	**A**	**A**	**D**	**D**	**A**	**D**	**B**	**D**	**A**	**C**
Q.	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
A.	**B**	**A**	**C**	**B**	**B**	**A**	**D**	**B**	**A**	**A**