

Q1 \ Answer two only : (20 M.)

- a- Define the following : sertoli cell , Leydig cell , Meninges , Cerebrum , Glial cells.
- b- Write briefly about Hormones which control reproduction in male.
- c- Explain with draw steps of sperm formation.

Q2 \ choose two only : (20 M.)

- a- enumerate the lobes of brain and explain three functions to each one .
- b- fill in the blanks :

- Limbic system consist from:

- -----
- -----
- -----
- -----
- -----

- Brain stem consist from:

- -----
- -----
- -----

- the language area of the brain called ----- which located in ----- lobe, while the area for matching written words with the sound of spoken speech called-----
- pH range compatible with life is -----
- there are Three majors chemical buffer systems : -----intracellular , ----- extracellular & ----- plasma.
- ----- Cells contribute to the formation of cerebrospinal fluid (CSF).
- ----- is the hormone that controls the growth of the body.
- Glomerular filtration rate is-----.

- juxtaglomerular cells in the kidney to release an enzyme called-----
- Kidney get ----- ml of blood per minute (25% of cardiac output at rest) via left & right renal arteries.

c- changing in the pH level of blood leads to either acidosis or alkalosis . explain it.

Q3\ Answer two only: (20 M.)

- a- Define : endocrine, paracrine and autocrine .
- b- List the majors gonadotropins, and explain the general functions of each one in male and female.
- c- Write the mechanism of renin-angiotensin system.

Q4 \ answer the following : (20 M.)

- a- describe the location of secretion, target tissue, and functions of the following hormones:
(choose 5 ONLY)

1. ADH.
2. Glucagon.
3. LH.
4. Prolactin.
5. Epinephrine
6. Insulin.

- b- enumerate and explain the steps of urine formation.

Q5 \ choose two only : (20 M.)

- a- Regarding to female reproductive system, enumerate the internal Female Structures . and what are the functions of it ?
- b- Define Astrocytes and what are the functions of it ?
- c- Explain briefly the dominant hormone in each phase of estrus cycle .

Head of department
Dr. Yaser A.M. Sulaiman

Lecturer
DR. Wasan S.Ooubied

Lecturer
Dikheel Hussain Hedri

Lecturer
Khalid Ahmed Hadi