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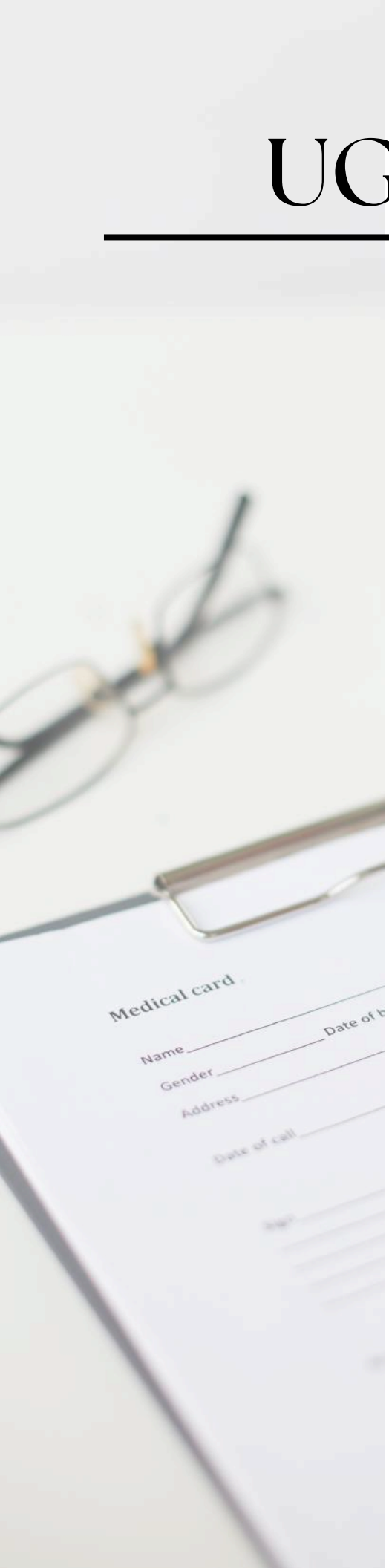

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Lecture 1

Glomerular filtration rate

Corrected by:

UGS-physiology Lecture 1

1)Renal blood flow is ? Select one

a. 0.8 - 1.2 l/min
b. 1.2 - 1.3 L/Min
c. 1.5 - 2 L/Min
d. 2-2.5 L/Min
e. 5-6 L/Min

Answer: b

2)Substance commonly used to measure RBF ? Select one:

a. Inuline
b. Glucose
c. Para-amino- hippuric acid
d. Amino acids

Answer: a

3)All of the following is true about the glomerular capillaries, EXCEP? Select one:

a. Low pressure capillary bed.
b. Drain into efferent arteriole.
c. Highly permeable with wide fenestrae.
d. Provide wide surface area for filtration.
e. Engulfed with bowman capsule

Answer:a

4) Forces mediating glomular filtration,one is true:

a. GFR receives 1/3 of RBF
b. net filtration pressure =12.5ml/mmHG/min
c. peritubelar reabsoprtion 124 ml/min
d. urine volume = 1ml/second

Answer:c

5)true about forces of filtration :

a. colloid pressure in capsule = 18
b. capillary hydrostatic pressure = 60 and it is highest pressure ir
c. colloid osmotic pressure = 28
d. Net filtration pressure = 12.5

Answer:b

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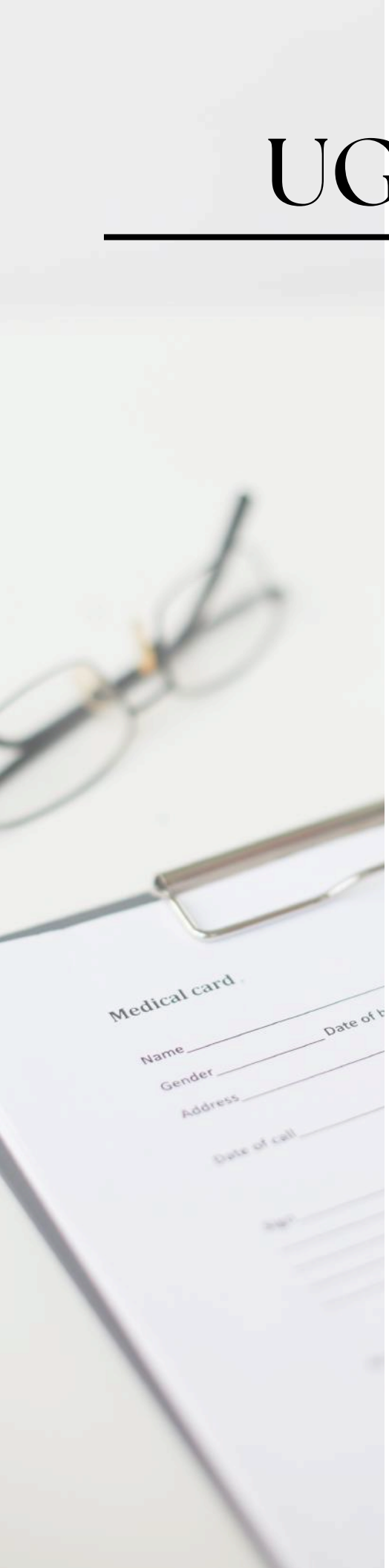

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Lecture 2

Regulation of GFR and RBF

Corrected by:

Malaak Al Zaidaneeyen

UGS-physiology Lecture 2

1- Regarding auto regulation in kidney , one is false :

A) This is an intrinsic mechanism in the kidney that keeps GFR and RBF nearly constant despite changes in mean ABP between 80 – 160 mmHg.

B)When the ABP rises from 100 to 160 mmHg constriction (narrowing) of afferent arterioles.

C) When the ABP rises from 100 to 160 mmHg under only tubulloglomular feedback.

D) When the ABP rises from 100 to 160 mmHg, the increase of Na+ and Cl concentrations by macula-dense.

ANS:C

2-Factor affecting GFR are? Select one:

a. Changes in renal blood flow.

b. Changes in glomerular capillary hydrostatic pressure.

c. Ureteric obstruction.

d. Combined effects of Changes in renal blood flow, Changes in glomerular capillary hydrostatic pressure and Ureteric obstruction.

e. Changes in respiratory rate.

Ans:d

3- Increase in GFR occurs with which of the following conditions?

a. Increased sympathetic stimulation

b. Decreased renal blood flow.

c. Hypoproteinemia

d. Ureteric obstruction

e. severe hemorrhage to get rid of waste products.

ANS:C

4- All of the following decrease GFR, EXCEPT:

A. VC of afferent arteriole.

B. VD of efferent arteriole.

C. Increased glomerular capillary pressure.

D. Decreased glomerular capillary permeability.

ANS:C

ظَنَّ إخوَة يُوسف أنَّهم أوقفوا مُستقبله، لكنَّ الله استخدمهم لِبناء مستقبله، لا يُمكن لأيّ شيء أن يمنع ما قدّره الله، تأكَّد بأنَّك لستَ تحت رحمة الظروف أو الأشخاص، حافظ على تَفاؤُلك وواصل حياتك وثِق بأنَّ كُل مشكلة وحظٍ عاثر جزءً من خيرٍ عَظيم سيُقدِّره الله لك.

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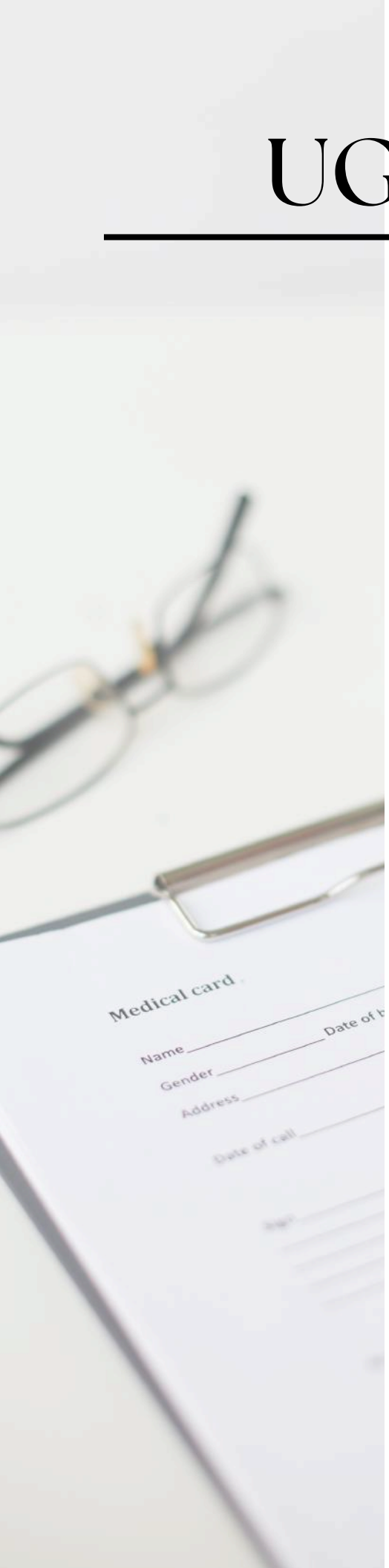

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Lecture 3

Renal clearance

Corrected by:

Raneem Ayed

UGS-physiology Lecture 3

1- About urea clearance, one is true ?

A) About 140/min

B)reabsorbed partially by renal tubules

C) nether reabsorbed or secreted

D) amount excreted in urine more than filtrate

ANS:B

2-One is true about urea clearance:

a. Freely filtered in glomeruli and is neither reabsorbed nor secreted

b. Freely filtered and partially reabsorbed and not secreted

c. Urea CL is normally about 140ml/min

d. Amount excreted in urine > amount filtered

Ans: B

3-Regarding inulin clearance , all true except:

A) concentration in plasma= its concentration in glomerular filtrate)

B)It is neither reabsorbed nor secreted in the renal tubules

C) filtered/minute=the amount excreted in urine/minute.

D) Determination of creatinine clearance can also be used for estimating RBF

Ans: D

4. Substance commonly used to measure RBF ? Select one:

a. Inuline

b. Creatinine

c. Glucose

d. Para-amino- hippuric acid

e. Amino acids

ANS:D

5. Glucose reabsorption is? Select one:

a. Passive in the proximal convoluted tubules.

b. By secondary active transport in the proximal convoluted tubules.

c. Co transported with sodium at the basal border of proximal convoluted tubules.

d. Has no tubular maximum.

e. Passive in the distal convoluted tubules.

Ans:b

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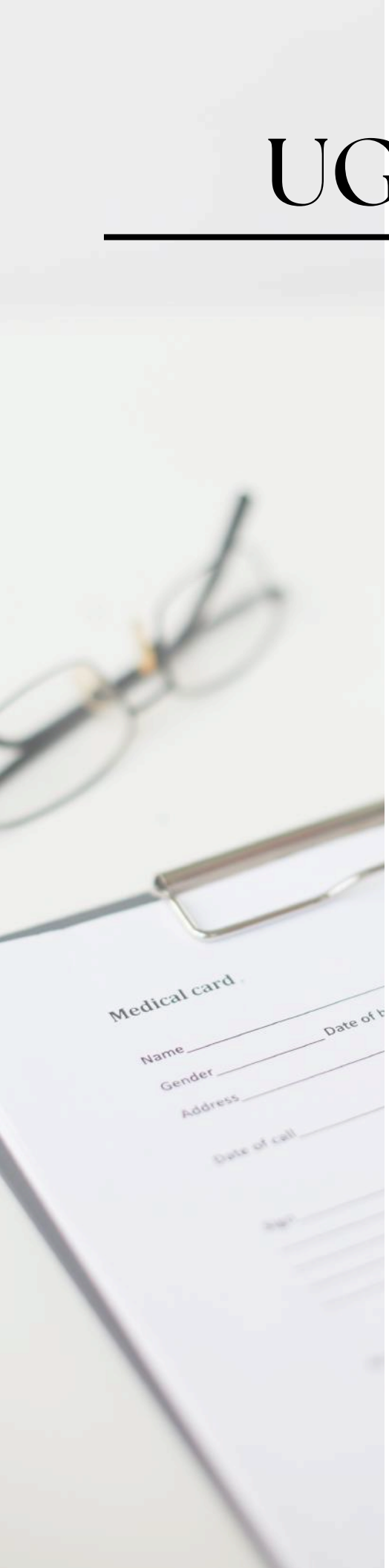

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Lecture 4

Renal, concentration and dilution of urine

Corrected by:

Raneem Ayed

UGS-physiology Lecture 4

1- The "diluting segment" of the nephron is? Select one:
a. PCT.
b. Descending limb of loop of Henle.
c. Ascending limb of loop of Henle.
d. Cortical collecting duct.
e. Distal convoluted tubule.

ANS:C

2-ADH produces? Select one:
a. Increase H2O reabsorptionb. Decrease sodium reabsorption
c. Decrease Angiotensin II formation
d. Increase sodium reabsorption
e. Increase H+ secretion

Ans: B

3-Regarding urea permeability along different renal tubules, all are true except? Select one:
a. The permeability to urea is high in P.C.T.
b. The descending part of loop of Henle is of low permeability to urea.
c. The DOT and early part of collecting duct: are impermeable to urea
d. the medullary part of collecting ducts permeable to urea
e. It is the same in all segments

ans:e

4. Along the PCT? Select one:
a. Glucose is secreted.
b. 60-70% 0f glucose filtered is reabsorbed.
c. Complete re-absorption of all glucose filtered.
d. Passive re-absorption of filtered amino-acids.
e. Filtrate is hyperosmotic

ans:c

5. Regarding Renal handling of water? Select one:
a. Water transport is restricted to PCT.
b. Water transport occurs by osmotic diffusion initiated by solute re-absorption.
c. Obligatory water re-absorption is under the control of ADH.
d. Maximumly in DCT.
e. Not detected in PCT

ans:b

UGS-physiology Lecture 4

6 In a dehydrated subject; “Hypotonic "Uid will be round in the:

a. Glomerular filtrate
b. Proximal tubule
c. Loop of Henle
d. Distal convoluted tubule
e. Collecting duct

ANS:C

7. The ascending limb of the Loop of Henle is?

a. impermeable to Na+
b. Involved in active transport of K+ into the lumen
c. Involved in active transport of Cl- out of lumen
d. Involved in active transport of Na+ into lumen
e. Hypotonic at the top
f. Actively transports water

ANS:E

8. Regarding urea permeability along different renal tubules, all are true except? Select one:

a. The permeability to urea is high in P.C.T.
b. The descending part of loop of Henle is of low permeability to urea.
c. The DOT and early part of collecting duct: are impermeable to urea
d. the medullary part of collecting ducts permeable to urea
e. It is the same in all segments

ans:e

9. In the normal kidney?

a. one would expect to find more than one million nephrons
b. proximal tubule cells do not contain brush border
c. proximal tubular cells possess fewer mitochondria than distal tubular cells
d. only 20 % of nephrons have a loop of Henle
e. the slit membrane of the Bowman's capsule has pores of 5mm diameter

ANS:A

UGS-physiology Lecture 4

10. Regarding mechanism of urine concentration, all true except:

A) the production and maintenance of a state of hyperosmolality (hypertonicity) in the renal medullary interstitium (MI)

B)urea diffuse from collecting duct under ADH

C) Na+ and Cl- diffuse passively in thin ascending segments

D) carrier that transports one Na+, one K+ & 2 Cl-in thick descending

ANS:D

11. true about recurrent system :

A) active transportation of ions in thick ascending part of loope of henle ***

12. One of the following is correct about vasa recta :

A) very high renal blood flow

b) blood osmotic concentration higher to 1200mOsmole/L at tips of vasa recta

c) water reabsorbed into theMI while solutes are removed from it

d) the visor Richter function as a counter current multiplier

e) wrestle, responsible for producing graded hyperosmolarity in MI

ans:B

13. In the normal kidney?

a. one would expect to find more than one million nephrons

b. proximal tubule cells do not contain brush border

c. proximal tubular cells possess fewer mitochondria than distal tubular cells

d. only 20 % of nephrons have a loop of Henle

e. the slit membrane of the Bowman's capsule has pores of 5mm diameter

ANS:A

UGS-physiology

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Lecture 5

male Reproductive System

Corrected by:

UGS-physiology Lecture 5

1_Spermatogenesis begins in the ? Select one:

1. Uterine horn.
2. Rete testes.
3. Seminiferous tubules.
4. Seminal vesicles.
5. Prostate

Answer:C

2_Which part of male reproductive system secrets most of seminal fluid?
Select one:
A-prostate

1. Penis
2. Seminal vesicle
3. Epididymis
4. Paradidymis

Ans: C

3_All the following statements about testosterone are true EXCEPT?

1. Activation of testosterone may occurs at the skin
2. The prostate may help in activation of the testosterone
3. Androgen bind Protein (ABP) inhibit the function of testosterone
4. The site of action of testosterone is the nucleus
5. Free testosterone is less than 5 percent of the total serum testosterone

Ans:c

4_which of these is incorrect?

- capacitation in seminiferous tubule

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Lecture 6

Female Reproductive System

Corrected by:

UGS-physiology Lecture 6

1-What is correct about corpus luteum?

A. a gray whitish color
B. begins to atrophied in 2nd month of pregnancy
C. secreting hormones in early pregnancy when stimulated by hormone of pituitary gland
D. secrete hormones in second part of menstrual cycle

ANS:D

2-Progesterone produces the following functions, except? Select one:

a. It helps implantation of fertilized ovum.
b. Helps formation of early placenta.
c. Inhibits uterine contraction during pregnancy.
d. Responsible for growth of nipples.
e. Thermogenic.

Ans: D

3-Progesterone hormone? Select one:

a. Stimulates LH secretion.
b. Has thermogenic effect.
c. Stimulates uterine contraction during pregnancy.
d. Makes the cervical mucus thin and alkaline.
e. Decrease blood glucose level

ans:B

4. Ovulation is associated with sudden rise in? Select one:

a. prolactin
b. estrogen
c. LH
d. Oxytocin
e. Growth hormone

ans:c

5. Mechanism of menses is triggered by?

a. Decreased estrogen
b. Vasoconstriction of the spiral arteries
c. Ischemic changes and necrosis of functional endometrium
d. increased progesterone level
e. Decreased progesterone level

ans:A

UGS-physiology Lecture 6

6-All the following are signs of post ovulation EXCEPT? a. Appearance of human chorionic gonadotrophin in the urine b. Increased body temperature at the luteal phase of the cycle c. Proliferation of the vaginal epithelia and infiltration with leukocytes d. Thick & tenacious cervical secretion e. Increased level of progesterone at the second half of the cycle

ANS:A

هذه اسئلة من كتاب روبنز سواء تم ذكرها بشكل مباشر خلال الشرح او استنتاجية

1- What accompanies sloughing of the endometrium during the endometrial cycle in a normal woman?

A) An increase in progesterone
B) The LH "surge"
C) A decrease in both progesterone and estrogen
D) An increase in estradiol

ANS:C

2- By which mechanism do LH and FSH return to baseline levels?

A) LH surge
B) Negative feedback on gonadotropin-releasing hormone (GnRH) by progesterone
C) Negative feedback on GnRH by estradiol
D) Negative feedback on GnRH from testosterone

Ans: C

3-Which of the following is true during the 12-hour period preceding ovulation?

A) A surge of LH is secreted from the pituitary
B) The surge occurs immediately after the formation of the corpus luteum
C) The surge is followed immediately by a fall in the plasma concentration of progesterone
D) The number of developing follicles is increasing

Ans: B

4. When do progesterone levels rise to their highest point during the female hormonal cycle?

A) Between ovulation and the beginning of menstruation
B) Immediately before ovulation
C) When the blood concentration of LH is at its highest point
D) When 12 primary follicles are developing to the antral stage

Ans: A

UGS-physiology Lecture 6

هذه اسئلة من كتاب روبنز

5. As menstruation ends, estrogen levels in the blood rise rapidly. What is the source of the estrogen?

A) Corpus luteum
B) Developing follicles
C) Endometrium
D) Stromal cells of the ovaries
E) Anterior pituitary gland

ANS:B

6-During the first few years after menopause, FSH levels are normally extremely high. A 56-year-old woman completed menopause 3 years ago. However, she is found to have low levels of FSH in her blood. What is the best explanation for this finding?

A) She has been receiving hormone replacement therapy with estrogen and progesterone since she completed menopause
B) Her adrenal glands continue to produce estrogen
C) Her ovaries continue to secrete estrogen
D) She took birth control pills for 20 years before menopause

ANS:A

7-A 20-year-old woman is not having menstrual cycles. Her plasma progesterone concentration is found to be minimal. What is the explanation for the low level of progesterone?

A) LH secretion rate is elevated
B) LH secretion rate is suppressed
C) FSH secretion rate is suppressed
D) No corpus luteum is present
E) High inhibin concentration in the plasma has suppressed progesterone synthesis

Ans: D

8-Before the preovulatory surge in LH, granulosa cells of the follicle secrete which hormone?

A) Testosterone B) Progesterone C) Estrogen D) Inhibin

ans:C

الإستِغفَار يَنفَع ، يَدفَع ، يَرفَع ، يَشفَع

أستَغفِر اللهَ العَظِيمَ وأتوبُ إلَيه

UGS-physiology Lecture 6

هذه اسئلة من كتاب روبنز

9- Two days before the onset of menstruation, secretions of FSH and LH reach their lowest levels. What is the cause of this low level of secretion?

A) The anterior pituitary gland becomes unresponsive to the stimulatory effect of GnRH

B) Estrogen from the developing follicles exerts a feedback inhibition on the hypothalamus

C) The rise in body temperature inhibits hypothalamic release of GnRH

D) Secretion of estrogen, progesterone, and inhibin by the corpus luteum suppresses hypothalamic secretion of GnRH and pituitary secretion of FSH

ANS:D

10-What causes menopause?

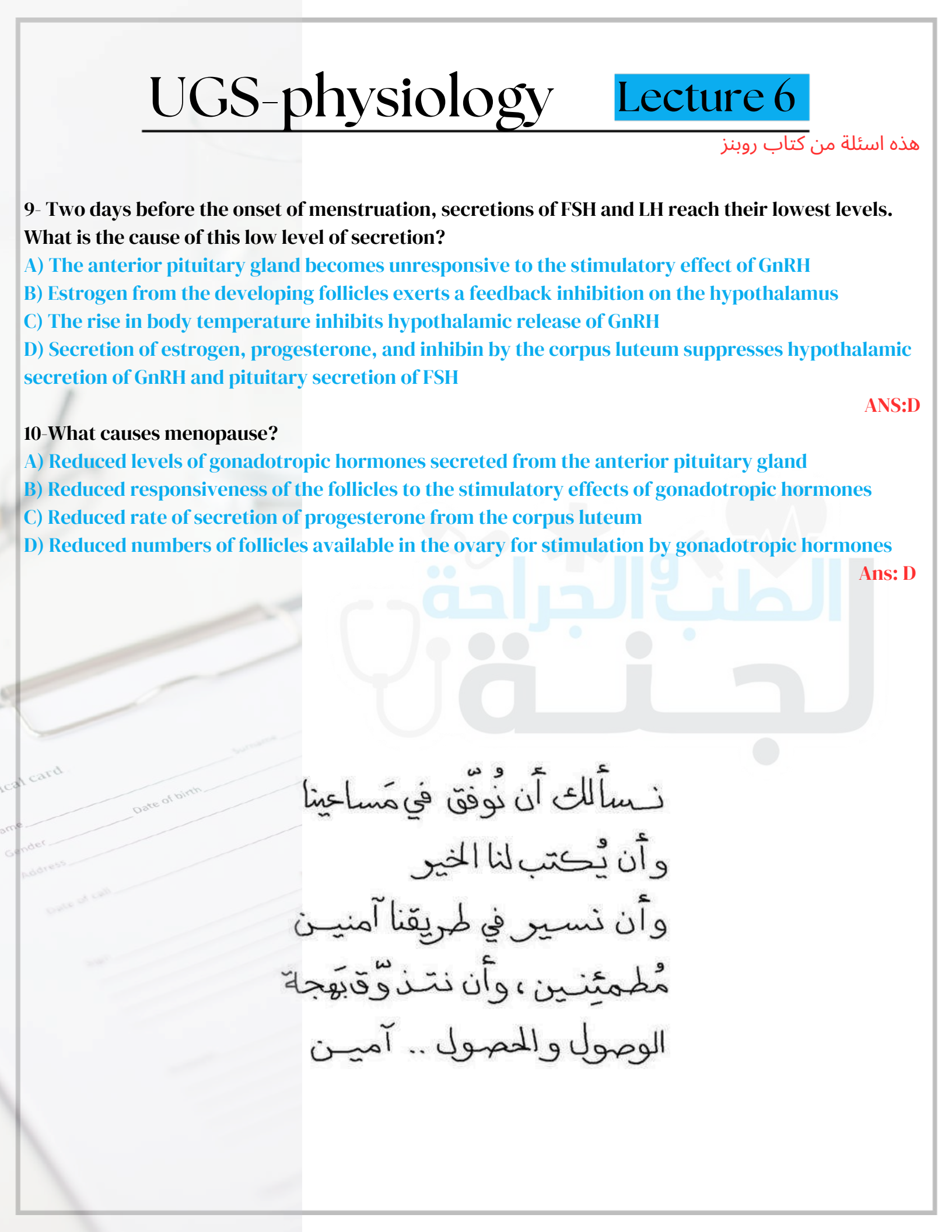
A) Reduced levels of gonadotropic hormones secreted from the anterior pituitary gland

B) Reduced responsiveness of the follicles to the stimulatory effects of gonadotropic hormones

C) Reduced rate of secretion of progesterone from the corpus luteum

D) Reduced numbers of follicles available in the ovary for stimulation by gonadotropic hormones

Ans: D



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Lecture 8

Lactation&Parturtion

Corrected by:

UGS-physiology

1)Estrogen produces the following effects on breast, except? :

.a. Growth of nipples

.b. Growth of acini

.c. Growth of ducts

.d. Increase vascularity

.e. Darkens areola

Answer:B

: Triggers milk release in lactating female(2

a. glucagon

b. oxytocin

c. luteinizing hormone

d. follicle-stimulating hormone

e. Prolactin

Answer:B

?The hormone stop ovulation in lactating women .1

A. oxytocin inhibit GnRH

B. oxytocin inhibit FSH

C. prolactin inhibit GnRH

D. prolactin inhibit FSH

Answer:C

4)All true except:

.A) Milk release can be blocked by hypothalamic activity

.B) Milk formation is under effect of progesteron and estrogen

.C) Lactation is maintained sucking

.D) Lactation is ceased by damage of anterior pituitary

.E) Milk ejection is ceased by damage in hypothalamus

Answer:B