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وقفنا وياكم الله

**THIS CONTAINS : PAST PAPERS OF MEDICINE (PATHO,ANATMOY,MICRO) TILL 019 MIDTERM  
PHYSIO (019 MED BATCH, 014-020 DEN)**

**GUYTON QUESTIONS , THE DOC JUST DO REPLICATION**

**THERE IS SOME KAHOOT QUESTIONS OF ANATMOY**

**THIS IS IMPERFECT TEST BANK ANOTHER VERSION MAY BE PUBLISHED AFTER FEW DAYS**

**IF I DID IT I'LL MENTION THE EDITS AND THE NEW QUESTIONS IN THE FIRST PAGE**

**I CHANGED MY MIND THIS IS THE LINK OF**

**ANATMOY KAHOOT**

**<https://drive.google.com/file/d/19ghj5vMpcjz7qoDIRJ6l71nSGAqVvPPj/view?usp=sharing>**

**<https://doctor2019.jumedicine.com/wp-content/uploads/sites/10/2022/04/Kahoot-male-genital-system.pdf>**

**GAYTON QUESTIONS**

**<https://doctor2019.jumedicine.com/wp-content/uploads/sites/10/2022/04/Guyton-questions.pdf>**

## ANATOMY

1-Which of the following muscles originate from the ischial spines ONLY ?

- a. Coccygeus
- b. Puborectalis
- c. Sphincter vaginae
- d. Iliococcygeus
- e. Levator prostate

Answer : A

2-During labour, the anteroposterior diameter of the baby's head passes in the anteroposterior diameter of the

pelvic:

- a. cavity
- b. outlet
- c. obstetric conjugate
- d. brim
- e. inlet

Answer : B

3-Regarding the inferior hypogastric plexus. Choose the wrong statement :

- a. It receives parasympathetic contribution from superior hypogastric plexus
- b. It receives contribution from pelvic splanchnic nerves
- c. It lies medial to internal iliac vessels
- d. It receives contribution from sacral sympathetic chain
- e. It lies lateral to rectum

Answer : A

4-The muscle which is located posterior to the right ureter is supplied by artery;

- a. Iliolumbar .

- b. Internal pudendal .
- c. Obturator .
- d. Lateral Sacral Artery.
- e. Superior gluteal.

Answer : A

5 -Regarding pelvic nerves, choose the WRONG statement:

- a. The sensation from base of the urinary bladder in females is carried by pelvic splanchnic nerve.
- b. Pudendal nerve is a branch of sacral plexuses
- c. The pudendal nerve block is used to anesthetizes the patient during Episiotomy.
- d. The pregnant women could complain of aching pain extending down one of the lower limbs due to compression of anococcygeal nerve.
- e. The ganglion impar is formed by union of the two sacral sympathetic trunks.

Answer : D

6-In females, which of the following arteries originates from posterior division of internal artery ?

- a. inferior gluteal
- b. superior vesical
- c. superior gluteal
- d. middle rectal
- e. uterine

Answer : C

7- Which of the following cells maintain acid-base balance by secreting either  $H^+$  or  $HCO_3^-$ ?

- A. Lacis cells .
- B. Mesangial cells .
- C. Dark intercalated cells of collecting ducts .
- D. Juxta-glomerular cells .

E. Podocytes.

Answer : C

8- Choose the WRONG match:

- A. Membranous urethra stratified columnar and pseudostratified columnar epithelium.
- B. Proximal convoluted tubules. Simple cuboidal epithelium with ..... long microvilli.
- C. Thick limbs of loop of henle. Simple cuboidal epithelium with no Microvilli.
- D. Distal convoluted tubules. Simple columnar epithelium; short microvilli.
- E. Distal part of spongy urethra...stratified squamous epithelium

Answer : D

9) Intraperitoneal fluid collection of urine and blood is caused by:

- A. superior wall of the bladder injury
- B. pelvic fractures
- C. anterior wall of bladder injury
- D. Prostatic tumor

Answer : A

10) The sphincter vesicae is supplied by:

- A. Prostatic plexus
- B. inf. Hypogastric plexus
- C. coelic plexus
- D. renal plexus

Answer : B

11) Which of the following structures doesn't pass within the spermatic cord:

- A. Pampiniform venous plexus
- B. Ilioinguinal nerve
- C. Vestige of processus vaginalis
- D. Testicular Arter y

E. Vas deferens

Answer : B

12) Regarding the Prostate, all are correct except ONE:

- A. The prostatic venous plexus is drained by the internal ac veins
- B. Apex rests on the perineal membrane
- C. The inferolateral surfaces are facing levator ani muscle
- D. It is related anteriorly to fascia of Denonvilliers
- E. The medial lobe is related to trigon of the urinary bladder

Answer : D

13) Choose the WRONG Statement:

- A. The posterior ligaments of the urinary bladder contain vesical veins.
- B. The lymphatics from spongy part of male urethra are drained by deep and superficial inguinal lymph nodes.
- C. The urethral sphincter that prevents reflux of semen into the urinary bladder during ejaculation is supplied by autonomic fibers from the inferior hypogastric plexus .
- D. During insertion a male urinary catheter you feel resistance while it passes through membranous urethra as it is the narrowest part of the urethra.
- E. The female urethra is more distensible than male urethra.

Answer : D

14) Adam is 3 months old, his parent notice a swelling in his scrotum. The doctor diagnosed it as a hydrocele.

During fluid aspiration the needle will pass through the following structures EXCEPT:

- A. Internal spermatic fascia .
- B. Skin and Dartos muscle.
- C. Visceral layer of Tunica vaginalis.

- D. External spermatic fascia.
- E. Cremasric muscle and fascia.]

Answer : C

15) A 17-year-old boy suffers a traumatic groin injury during a soccer match. The urologist notices tenderness and swelling of the boy's left testicle that may be produced by thrombosis in which of the following veins:

- A. Left internal pudendal vein
- B. Left renal vein
- C. Inferior vena cava
- D. Left inferior epigastric vein
- E. Left external pudendal vein

Answer : B

16) An elderly man with a benign enlargement of his prostate experiences difficulty in urination, urinary frequency, and urgency. Which of the following lobes of the prostate gland is commonly involved in benign hypertrophy that obstructs the prostatic urethra:

- A. Anterior lobe
- B. Median lobe
- C. Right lateral lobe
- D. Left lateral lobe
- E. Posterior lobe

Answer : B

17) A 59-year-old man is diagnosed with prostate cancer following a digital rectal examination. For the resection of prostate cancer, it is important to know that the prostatic ducts open into or on which of the following

structures:

- A. Membranous part of the urethra
- B. Seminal colliculus
- C. Spongy urethra
- D. Prostatic sinus
- E. Prostatic utricle

Answer : D

18) A 37-year-old man is suffering from carcinoma of the skin of the penis. Cancer cells are likely to metastasize

directly to which of the following lymph nodes:

- A. External iliac nodes
- B. Internal iliac nodes
- C. Superficial inguinal nodes
- D. Aortic (lumbar) nodes
- E. Deep inguinal nodes

Answer : C

19) A 39-year-old man is unable to expel the last drops of urine from the urethra at the end of micturition because

of paralysis of the external urethral sphincter and bulbospongiosus muscles. This condition may occur as a result

of injury to which of the following nervous structures:

- A. Pelvic plexus
- B. Prostatic plexus
- C. Pudendal nerve
- D. Pelvic splanchnic nerve
- E. Sacral splanchnic nerve

Answer : C

20) A 16-year-old boy presents to the emergency department with rupture of the penile urethra. Extravasated

urine from this injury can spread into which of the following structures:

- A. Scrotum
- B. Ischiorectal fossa
- C. Pelvic cavity
- D. Testis
- E. Thigh

Answer : A

21) A 72-year-old man comes to his physician for an annual checkup. Which of the following structures is most

readily palpated during rectal examination:

- A. Prostate gland
- B. Epididymis
- C. Ejaculatory duct
- D. Ureter
- E. Testis

Answer : A

22) A 21-year-old man is involved in a highspeed motor vehicle accident. As a result, he has extensive damage to

his sphincter urethra. Which of the following best describes the injured sphincter urethra?

- A. Smooth muscle
- B. Innervated by the perineal nerve
- C. Lying between the perineal membrane and Colles fascia
- D. Enclosed in the pelvic fascia
- E. Part of the pelvic diaphragm

Answer : B



23) An elderly man with prostatitis is seen at an internal medicine clinic. The seminal colliculus of his prostate

gland is infected, and its fine openings are closed. Which of the following structures is/are most likely to be

disturbed:

- A. Ducts of the prostate gland
- B. Prostatic utricle
- C. Ducts of the bulbourethral glands
- D. Ejaculatory ducts
- E. Duct of the seminal vesicles

Answer : D

24) Which of the following branches of the renal artery passes in the renal column:

- A. Segmental
- B. Interlobar
- C. Interlobular
- D. lobar
- E. Arcuate

Answer : B

25) Regarding the Prostate, all are correct except ONE:

- A. The prostatic venous plexus is drained by the internal ac veins
- B. Apex rests on the perineal membrane
- C. The inferolateral surfaces are facing levator ani muscle
- D. It is related anteriorly to fascia of Denonvilliers
- E. The medial lobe is related to trigon of the urinary bladder

Answer : D

26) Regarding the ureter, which of the following is INCORRECT;

- A. It is crossed by genitofemoral nerve.
- B. Its pelvic part is supplied by branches from vesical, middle rectal and uterine arteries
- C. The Inferior mesenteric vein is medial to the left ureter
- D. Sensory fibers from the ureter enter the spinal cord through last two thoracic and upper two lumbar segments .
- E. One of its narrowest points located medial to ischial spine.

Answer : A

27) Omar, a 38 years old man is complaining of severe renal colic radiating to his flanks. X ray revealed renal

stone. After surgical removal of the stone, the doctor advice his family that Omar can eat and drink after his full

recovery. Why Omar can eat and drink after this operation?

- A. The kidney is not a gastrointestinal organ.
- B. Small intestine is supplied by superior mesenteric artery while the kidney by renal artery.
- C. The intestinal blood is drained by portal vein while renal vein is drained by systematic circulation.
- D. The intestinal pain transmitted to T10 while renal pain to T12 segments of spinal cord.
- E. The kidney is a retroperitoneal structure.

Answer : E

28) **Clinically**, to assess the pelvis of a pregnant women before labor, we measure the distance between.

- A. The two arcuate lines .
- D. Sacral promontory and lower border of symphysis pubis and subtract 1.5 cm .
- C. Sacro-iliac joint on one side and the iliopubic eminence on opposite
- D. Sacral promontory and upper border of symphysis pubis .

E. Ischial spine and pubic Arch

Answer : B

29) A first-year resident in the urology department reviews pelvic anatomy before seeing patients. Which of the following statements is correct?

- (A) The dorsal artery of the penis supplies the glans penis.
- (B) The seminal vesicles store spermatozoa.
- (C) The duct of the bulbourethral gland opens into the membranous urethra.
- (D) The duct of the greater vestibular gland opens into the vagina
- (E) The anterior lobe of the prostate gland is prone to carcinomatous transformation

Answer : A

30) A male patient has bilateral occlusion of ejaculatory ducts, his ejaculation will contain..... only:

- a. Prostatic secretion and alkaline secretion rich in fructose
- b. Sperms and prostatic secretion
- c. Prostatic secretion
- d. Sperms
- e. Alkaline secretion rich in fructose

Answer : C

31) Choose the WRONG statement;

- a. The Cremastic artery is a branch from inferior epigastric artery
- b. Sinus of epididymis extends between lateral side of testis and the epididymis .
- c. The Middle spermatic nerves arise from the superior hypogastric plexus .
- d. The feeling of kick in the stomach accompanying injury of the testis is a referred pain through inferior spermatic nerve.
- e. The left renal vein is compressed between aorta and superior mesenteric artery

Answer : D

32) A 58-year-old man is diagnosed as having a slowly growing tumor in the deep perineal space. Which of the following structures would most likely be injured?

- (A) Bulbourethral glands
- (B) Crus of penis
- (C) Bulb of vestibule
- (D) Spongy urethra
- (E) Great vestibular gland

Answer : A

33) A 62-year-old man is incapable of penile erection after rectal surgery with prostatectomy. The patient most likely has a lesion of which of the following nerves?

- (A) Dorsal nerve of the penis
- (B) Perineal nerve
- (C) Hypogastric nerve
- (D) Sacral splanchnic nerve
- (E) Pelvic splanchnic nerve

Answer : A

34) what is not one of the posterior relations of the rt kidney:

- A-rib 12 with diaphragm in between
- B- parietal pleura with diaphragm in between
- C- subcostal nerve without diaphragm
- D- 2 nerves with the same root value
- E. TWO arcuate ligaments

Answer : E

35) Ureteric pain at level of t4 will be referred to labia majora through :

Genitofemoral nerve

36) Wrong about the kidney:

peritoneum reflects from inferior surface of liver to cover the kidney from its upper pole to its lower pole.

37) True:

female true pelvis is shorter than males and its inlet and outlet are wider

38) A child with ruptured penile urethra, urine extravasation won't reach:

The thigh

39) Wrong about spermatic cord:

can contain the sac of direct inguinal hernia

40) Which of the following statements are incorrect:

Answer: Anteroposterior diameter is larger than the transverse in a platypelloid pelvis

41) referred pain along distribution of the genitofemoral nerve:

Answer: Ureter

42) a case for a man with hematuria ,no WBCs in urine ,no symptoms of systemic involvement ,what is the best

diagnosis ?

Answers: Nutcracker syndrome

43) . A surgical procedure that causes ileus paralysis, predict the site of the procedure:

Answers: Superior part of male Urinary bladder

44) Where does the pre-ejaculatory duct open?

Answers: on the spongy urethra

45) Which one of the following is true regarding the white line?

Answers: it is the origin of puborectalis muscle that inserted in anococcygeal body

# Microbiology

1-Which of the following inhibits bacterial growth in the bladder ?

- a. Urine retention
- b. Bacterial biofilm formation
- c. Lactoferrin in the urine
- d. Urine pH of 7.4
- e. Absence of secretory antibodies

Answer : C

2-All of the following can inhibit bacterial growth in the urinary tract except:

- a. Tamm-Horsfall protein.
- b. Lactoferrin.
- c. Urine flow .
- d. Abundance of Iron.
- e. Urea.

Answer : D

3-Which of the following is true regarding complicated and uncomplicated UTIS? مكرر

- a. Management is the same for both.
- b. The most common pathogen is the same for both.
- c. Bacteria lacking adhesions usually cause uncomplicated UTIS, while bacteria expressing adhesions cause complicated UTIS.
- d. Risk factors are the same for both.
- e. Dysuria and frequency are found only in complicated UTIS

Answer : B

4-A 26-year-old female, previously healthy, presents to the clinic with a 3- day history of pain on passing urine

associated with frequent bathroom visits. She denies urethral discharge or itch, and reports no sexual activity in

the past 6 months. Which of the following laboratory results most likely confirms her diagnosis with a UTI ?

- a. Any number of RBCS in urine .
- b. Urine culture revealing growth of coagulase negative, gram positive cocci .
- c. Dipstick test reveals decreased urine pH.
- d. Dipstick test reveals presence of nitrite .
- e. Any number of WBCS in urine.

Answer : D

5-Which of the following is true regarding urinary tract infection treatment ?

- a. Treatment can be initiated if UTI symptoms are present without need for further lab testing depending on history and physical examination
- b. Urine analysis and culture is mandatory before initiation of therapy
- c. Antimicrobial therapy is not always required for symptomatic UTI
- d. Treatment regimen for cystitis and pyelonephritis are usually the same
- e. Treatment regimen includes a combination of antibacterial, antifungal, and antiviral drugs

Answer : A

6-Which of the following best describes emphysematous pyelonephritis?

- a. Pyelonephritis associated with vaginal discharge
- b. A severe multifocal bacterial pyelonephritis with high mortality
- c. Clinically asymptomatic pyelonephritis
- d. Pyelonephritis caused by ureteric stone formation
- e. Pyelonephritis that resolves spontaneously in 30% of patients

Answer : B

7-Screening for, and treating asymptomatic bacteriuria is recommended in which of the following cases ?

- a. A 22-year-old male undergoing urinary tract surgery .
- b. A 50-year-old male with a chronic indwelling urinary catheter . c. A 73-year-old male with history of diabetes.
- d. A 30-year-old healthy female
- e. A 60-year-old male with benign prostatic hypertrophy.

Answer : A

8-Screening for, and treating asymptomatic bacteriuria is recommended in which cases? مكرر احفظه

- a. Patients undergoing abdominal procedures
- b. Pregnant women
- c. A patient with an indwelling catheter

Answer : B

9-Bacterial vaginosis is best described as :

- a. Vaginal discharge caused by a disturbance in the vaginal microbiota .
- b. Vaginal discharge caused by gram positive rods .
- c. A Common sexually transmitted disease.
- d. A Self-limiting disease that should not be treated with antibiotics .
- e. A rare cause of vaginal discharge worldwide.

Answer : A

10-A 22-year-old male presents to his physician, complaining of a 2-week history of a sore on his penis. Physical

examination shows a firm, raised, red, nontender chancre midway between the base and glans. Which of the

following is the most appropriate course of action for the physician?

- A. Test a serum sample for antibodies to herpes simplex virus.
- B. Swab the chancre and culture on Thayer-Martin agar.



- C. Swab the chancre and perform a Gram stain.
- D. Perform a dark-field examination on a swab of the active lesion.
- E. Swab the chancre and culture on blood agar.

Answer : D

11- A 28-year-old woman presents with fever, dysuria, urinary frequency, and flank tenderness. The urine contained numerous neutrophils and many white cell casts. Urine protein was moderately increased.

A quantitative urine culture revealed more than 10<sup>5</sup> bacteria per milliliter. The most likely causative organism is:

- A. Escherichia coli.
- B. Haemophilus influenzae.
- C. Proteus vulgaris.
- D. Pseudomonas aeruginosa.

Answer : A

12-A 26-year-old female, previously healthy, presents to the clinic with a 3-day history of pain on passing urine associated with frequent bathroom visits. She denies urethral discharge or itch, and reports no sexual activity in

the past 6 months. Laboratory tests for this patient are most likely to reveal which of the following?

- a. Dipstick test reveals decreased urine pH
- b. Urine culture reveals Gram positive diplococci
- c. Dipstick test reveals increased leukocyte esterase
- d. Urine culture reveals spore forming Gram positive rods
- e. Dipstick test reveals absent nitrite

Answer : C

13- Which of the following is expected to be an uncomplicated urinary tract infection ?

- a. Dysuria and frequency in a 30-year-old female with a ureteral catheter
- b. Dysuria and frequency in a 6-year-old female
- c. Dysuria and frequency in an AIDS patient
- d. Dysuria and suprapubic pain in a 30-year-old male
- e. Dysuria and fever in a 65-year-old diabetic male

Answer : B

14-A 35-year-old male presents to the clinic complaining of a genital vesicular rash that appeared a few days

before the visit, with some vesicles starting to ulcerate, his history reveals unprotected intercourse with 3

different sexual partners in the last 2 months. The pathogen causing this lesion is most likely ?

- a. Spirochete.
- b. Yeast.
- c. Gram-negative diplococci.
- d. A double stranded DNA virus .
- e. A single stranded RNA virus.

Answer : D

15-The pathogen that causes the common sexually transmitted disease chlamydia :

- a. Is similar morphologically to the pathogen causing syphilis .
- b. Is diagnosed using culture on tryptic soy agar .
- c. Can survive inside epithelial cells.
- d. Only affects epithelium of the genital tract .
- e. Can only be transmitted through sexual contact.

Answer : C

16-A 20-year-old, sexually-active female presents at her family physician's office with fever, painful arthritis of the

right knee, and several small pustules on her extremities. Material from the pustules and joint fluid were collected

for culture on modified Thayer-Martin medium. Which of the following results are consistent with a diagnosis of

gonococcal infection?

A. Growth of small colonies consisting of gram-negative diplococci. Bacteria grown on plates are catalase and

oxidase positive.

B. Growth of small colonies consisting of gram-positive cocci. Bacteria growth on plates are catalase and oxidase

positive.

C. Growth of small colonies consisting of gram-negative diplococci. Bacteria growth on plates are catalase and

oxidase negative.

D. Growth of large mucoid colonies consisting of gram-negative bacilli. Bacteria growth on plates are catalase and

oxidase negative.

E. Growth of gram-negative diplococci within polymorphonuclear leukocytes. Bacteria can utilize glucose and

maltose as a carbon sources.

Answer : A

17-A 22-year-old male presents to his physician, complaining of a 2-week history of a sore on his penis. Physical

examination shows a firm, raised, red, nontender chancre midway between the base and glans. Which of the

following is the most appropriate course of action for the physician?

A. Test a serum sample for antibodies to herpes simplex virus.

B. Swab the chancre and culture on Thayer-Martin agar.

C. Swab the chancre and perform a Gram stain.

- D. Perform a dark-field examination on a swab of the active lesion.
- E. Swab the chancre and culture on blood agar.

Answer : D

18-Which one of the following is characteristic of chlamydiae?

- A. Reticulate bodies are an infectious, extracellular form of the organism.
- B. Most genital tract infections are asymptomatic and undiagnosed.
- C. They are sensitive to  $\beta$ -lactam antibiotics.
- D. They stain gram-positive.
- E. Inclusion bodies are formed from division of elementary bodies

Answer : B

19-A feature of chlamydiae that is unique to this group is:

- A. the requirement of an obligate intracellular habitat.
- B. its replicative cycle is distinguished by two morphologic forms that develop within cytoplasmic vacuoles.
- C. the lack of detectable peptidoglycan in its cell envelope.
- D. its use of host coenzymes of energy metabolism.
- E. all of the above.

Answer : B

20-A 19-year old male presents at an STD clinic with a urethral discharge and dysuria. A swab specimen was

collected and examined by Gram stain followed by light microscopy. Polymorphonuclear leukocytes were

detected in the exudate along with intracellular and extracellular Gram negative diplococci. How should this

patient's infection be treated?

- A. No treatment is necessary
- B. With a tetracycline-based antibiotic such as doxycycline.

- C. With a third-generation cephalosporin antibiotic such as ceftriaxone
- D. With a combination of ceftriaxone and doxycycline
- E. With penicillin

Answer :D

21-Which of the following antibiotics is most likely to be effective for chlamydial infections?

- A. Penicillins
- B. Vancomycin
- C. Cephalosporins
- D. Carbapenems
- E. Macrolides

Answer : E

22-Fungal infections are usually more difficult to treat than bacterial infections because:

- a. fungal organisms grow fast
- b. bacterial infections often occur in tissues that are slowly penetrated by antimicrobial agents
- c. fungal infections often occur in tissues that are highly penetrated by antimicrobial agents
- d. fungal infections often occur in vascular tissues
- e. fungal organisms grow slowly

Answer : E

23-Wrong about T. vaginalis:

Endodyogeny

24- The most common cause of the UTI?

Answer: microbes from GI tract

-25 main difference between BV & Trichomoniasis:

Answer: epithelial cells studded with adherent coccobacilli

26- A feature of chlamydia:

Answer: it has infectious and non - infectious form

27- 33 year-old female, previously healthy, presents to the clinic with a 3-day history of pain on passing urine

associated with frequent bathroom visits. She denies urethral discharge or itch, and reports no sexual activity in

the past 6 months ,what is the next step ?

Answers: No test required before starting empirical treatment

128- A patient with Painful vesicular lesions, what is the cause?

Answers: Double stranded DNA

29- Which of the following tests is used to Screen, stage and monitor the syphilis:

Answers: VDRL test

-30

## Pathology

1- One is true about Minimal change disease:

- A. Maybe caused by nephron loss
- B. Diffuse glomerular basement membrane thickening
- C. Leads to recurrent hematuria
- D. Selective albumin loss in urine
- E. Azotemia is an important finding in blood tests

Answer : D

2- One is true about membranoproliferative glomerulonephritis :

- A. Most common cause of azotemia in children
- B. Only one type exists
- C. Inflammation is not a contributing factor in pathogenesis m
- D. Mesangial IgA deposits are diagnostic
- E. Double contour (tram track) GBM is characteristic

Answer : E

3- One is true about primary membranous nephropathy:

- A. Azotemia
- B. Recurrent episodes of hematuria
- C. Hypertension
- D. Urine RBC casts
- E. Massive proteinuria

Answer : E

4- All of the following are manifestations of nephritic syndrome, except:

- A. Massive proteinuria (> 3.5 g/day)
- B. RBC casts
- C. Hypertension

D. Azotemia

E. Oliguria

Answer : A

5- A 4-year-old boy presents with severe proteinuria, hypoalbuminemia, generalized edema, and hyperlipidemia.

The patient improves on an empiric trial of corticosteroids, with complete resolution of proteinuria. Which of the

following is the most likely diagnosis?

A. Diabetic nephropathy

B. Focal segmental glomerulosclerosis

C. Lupus nephropathy

D. Membranous glomerulonephritis

E. Minimal change disease

Answer : E

6- One is true about IgA nephropathy :

A. Most common nephrotic syndrome in childhood

B. An x-linked hereditary nephritis

C. Elevated serum anti-ASO titers

D. Recovery is the usual outcome

E. Linked to abnormality in secretory immunoglobulin clearance

Answer : E

7- One of the following is correct about post infectious glomerulonephritis (PSGN):

A. Mostly causes nephrotic syndrome

B. Negative tests by immunofluorescence

C. Elevated anti-streptolysin O titers

D. Caused by streptococcal pyelonephritis



E. More common in adults than children

Answer : C

8- A 3-year-old girl presents with generalized edema shortly after recovery from an upper respiratory infection.

Laboratory studies reveal marked albuminuria, as well as hypoalbuminemia and hyperlipidemia. Prior similar

episodes responded to adrenal steroid medication. The most likely diagnosis is:

- A. focal segmental glomerulosclerosis.
- B. membranous glomerulonephritis.
- C. minimal change disease.
- D. poststreptococcal glomerulonephritis.
- E. rapidly progressive glomerulonephritis.

Answer : C

9- ONE is true about focal and segmental glomerulosclerosis (FSGS):

- A. A disease of childhood
- B. Only some glomeruli are affected
- C. Rapidly progressive glomerulonephritis
- D. Positive family history in most cases
- E. Subepithelial humps

Answer : B

10- In order to know the specific composition of immune deposits inside the glomerulus, we typically use the

following test:

- A. Transmission electron microscopy
- B. Disecting microscopy
- C. Light microscopy (Silver stain)
- D. Direct Immunofluorescence microscopy

E. Light microscopy (H&E stain)

Answer : D

11- Which of the following factors INCREASE glomerular filtration rate?

- A. Mild constriction of efferent arteriole
- B. Stone in the renal pelvis (obstruction due to stone)
- C. Increase in Bowman's space hydrostatic pressure
- D. Severe constriction of the efferent arteriole
- E. Mild constriction of the afferent arteriole

Answer : A

12- Which cell type comprises the visceral layer of Bowman capsule?

- A. Endothelial cells
- B. Juxtaglomerular cells
- C. Mesangial cells
- D. Podocytes
- E. Extraglomerular mesangial (or Lacis) cells

Answer : D

13- Dense deposit disease is also known as :

- A. MPGN 1
- B. RPGN 1
- C. PSGN
- D. RPGN 2
- E. MPGN 2

Answer : E

14- Dense deposit disease is characterized by glomerular deposits composed of one of the following:

- A. IgG.
- B. IgA.

C. IgM .

D. C3.

E. C4.

Answer : D

15- Post-infectious glomerulonephritis is most commonly linked to an immune response against the following

microorganism :

A. Schistosomiasis

B. Streptococcus Group A

C. Staphylococcus

D. H. influenza

E. Corona viruses

Answer : B

16- A 5-year-old boy presents with hematuria. His mother states that he has had a sore throat for the past 2 days

and that he has had hematuria a few times in the past, also concomitantly with a sore throat. She states that his

urine usually returns to a normal clear yellow color after a few days. Which of the following is the most likely

diagnosis?

A. Alport syndrome

B. Goodpasture syndrome

C. IgA nephropathy

D. Membranoproliferative glomerulonephritis

E. Poststreptococcal glomerulonephritis

Answer : C

17-Pathogenesis of analgesic nephropathy :-

- a. T-cell mediated
- b. Inhibition of PG synthesis
- c. Type I hypersensitivity reaction
- d. Non-covalent binding to enzymes

Answer : B

18-All of the following can lead to hydronephrosis, except ONE:

- a. Atresia of urethra .
- b. PKHDI mutations.
- c. Ptosis of renal pelvis.
- d. Prostatic hyperplasia .
- e. Spinal cord damage.

Answer : B

19-All are correct regarding acute drug-induced tubulointerstitial nephritis, except one :

- a. Characterized by fever, skin rash and eosinophilia .
- b. Develops within days to weeks following drug exposure.
- c. Causes hematuria without significant proteinuria .
- d. Increased risk of urothelial carcinoma of the renal pelvis .
- e. Hypersensitivity reactions may be implicated.

Answer : D

20- "Struvite" renal stones are composed of :

- a. Magnesium ammonium phosphate.
- b. Calcium phosphate.
- c. Cystine crystals .
- d. Uric acid crystals.
- e. Calcium oxalate.

Answer : A

21-Which of the following may be seen in all Urinary tumors :-

- a. painless hematuria
- b. stone formation
- c. hematuria and pain during urination
- d. Eosinophilia

Answer : A

22-ONE statement is correct regarding tumors of the urinary tract :

- a. Schistosomiasis is a risk factor of Chromophobe renal carcinoma.
- b. Painful hematuria is a frequent symptom of renal cancers.
- c. Wilms tumor is linked to mutations in VHL gene.
- d. Clear cell carcinoma is the most common renal tumor in adults.
- e. Renal papillary carcinoma reveals mutations in VHL gene.

Answer : D

23-ONE is true about testicular tumors:

- a. Germ cell tumors are generally considered benign tumors
- b. Seminoma typically displays schiller- Duvall bodies
- c. Sex cord- stromal tumors include embryonal carcinoma and teratoma
- d. They are the most common tumors in men > 60 years old
- e. Elevated serum AFP is considered a tumor marker for testicular yolk sac tumor

Answer : E

24-ONE is true about prostate gland pathology

- a. Frequent symptoms of early prostate cancer include urinary urgency and hesitancy
- b. Serum levels of prostate specific antigen (PSA) is used for prostate cancer screening
- c. Benign prostatic hyperplasia usually arise in peripheral zones
- d. Only epithelial elements are affected by benign prostatic hyperplasia
- e. Cryptorchidism is an important risk factor for prostate cancer

Answer :B

25-The most common primary testicular tumor in children younger than 3 years is:

- a. Embryonal carcinoma
- b. Yolk sac tumor
- c. Choriocarcinoma
- d. Teratoma

Answer : B

26-ONE is CORRECT regarding germ cell tumors of the testes :

- a. Embryonal carcinoma displays uniform small tumor cells
- b. Choriocarcinoma typically displays schiller- Duvall bodies
- c. Elevated serum HCG is considered a tumor marker for seminoma
- d. They are most common after the age of 60
- e. Post-pubertal germ cell tumors are considered potentially malignant

Answer: E

27-ONE is correct regarding prostate hyperplasia:

- a. Cryptorchidism frequently leads to prostate hyperplasia
- b. Serum level of prostate specific antigen (PSA) is markedly high
- c. Involves prostate overgrowth of stroma but not glands
- d. An Androgen-dependent condition of the prostate
- e. Represents the precursor lesion for prostate cancer

Answer :D

28- ONE is true about cystic diseases of the kidney:

- A. Hypertension complicates many cases of autosomal dominant polycystic disease.
- B. Chronic hemodialysis is a risk factor to have simple renal cysts.
- C. Polyuria and polydypsia are symptoms of adult polycystic renal disease.
- D. PKD 2 mutation is linked to autosomal recessive polycystic kidney disease.

E. Nephronophthisis uremic complex is associated with numerous cortical cysts.

Answer : A

29- Cystic diseases of the kidney that may develop carcinomas are caused by:

A. Genetic mutation of polycystin genes

B. Inflammation

C. Chronic hemodialysis

Answer : C

30- Most common urinary tract tumor:

transitional cell carcinoma

31. Wrong about intratubular germ cell neoplasia:

seen in prepubertal men

32- Wrong combination :

adult type PKD – fibrocystin 1

33- Wrong about nephronophthisis-medullary cystic disease complex:

associated with hereditary hepatic fibrosis

34- Most common kidney stone in children:

oxalate stone (mostly)

35- Wrong about acute drug-induced TIN:

dose related allergy

36 -Which of the following statements are correct:

Answer: HCG elevated in choriocarcinoma

37- Analgesic nephropathy occurs due to: مكرر خيوه احفظه

Answer: inhibition of prostaglandin synthesis

38- A characteristic feature of nephritic syndrome:

Answer: Hematuria

39- Autosomal Recessive (Childhood) Polycystic Kidney Disease occurs mostly due to mutation in:

Answer: PKHD1

40- Hydronephrosis can occur due to:

Answer: Neurogenic bladder

41- Correct pair:

Answer: von Hippel-Lindau mutation – clear cell carcinoma

42- True about urolithiasis:

Answer: some renal stones can be completely asymptomatic

### **PHYSIOLOGY**

### **MEDICINE 019**

A 32-year-old man reports frequent urination. He is overweight (280 pounds [127 kilograms], 5 feet 10 inches

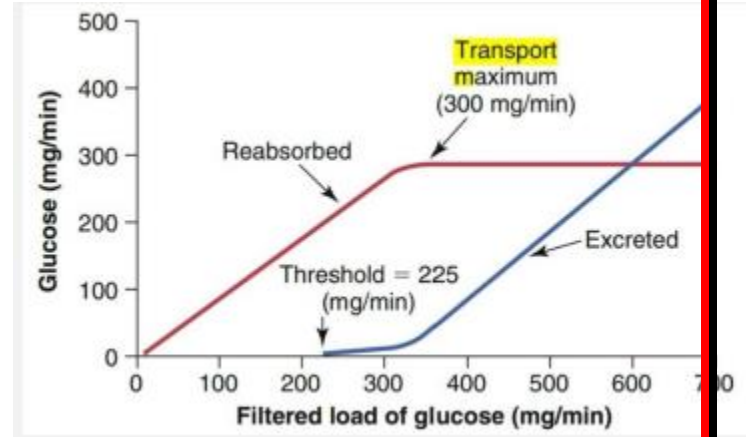
[178 cm] tall). After measuring the 24-hour creatinine clearance, the Plasma concentration of the glucose was 300

mg/dl and his renal transport maximum for glucose is normal, as shown in the figure below, if you know that

excretion rate of the glucose in the urine was 150 ml/min, calculate the GFR?



- A) 1 mg/min
- B:) 1.5 mg/min
- C) 150 mg/min
- D) 225 mg/min
- E) 1200 mg/min
- F) Information provided is inadequate to estimate the glucose excretion rate.



Answer: C

blockade of the renin-angiotensin system results in:

Answer: impairment in autoregulation of macula densa

11+12- Use the following laboratory test results to answer these questions(11-12):

Urine plasma flow = 1ml/min

Urine inulin concentration = 100 mg/ml

Plasma inulin concentration = 2 mg/ml

Urine urea concentration = 50 mg/ml

Plasma urea concentration = 2.5 mg/ml

11.what is the GFR?

- a.50 ml/min.
- b. 50 ml/min
- c.100 ml/min
- d. 125 ml/min

Answer: A

12. What is the net urea reabsorption rate?

- a. 0 mg/min.
- b. 25 mg/min.
- c. 50 mg/min
- d.75 mg/min

Answer: D

Which one of the following is concerned with renewal of glomerular capillaries BM?

Answers: Podocytes

Which of the following indicates a patient with primary aldosteronism: (There was a table تخیلوہ)

Answer:

PH = 7.52

K+ = 2.5 (less than normal)

Na+ = 146 (higher than normal)

Blood pressure: 140/90

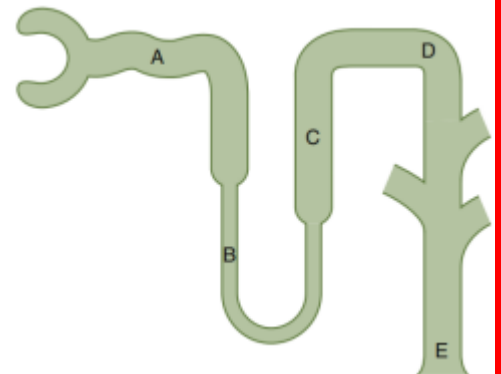
A patient with renal disease had a plasma creatinine of 2 mg/dl during an examination 6 months ago. You note that his blood pressure has increased about 30 mm Hg since his previous visit, and laboratory tests indicate that his plasma creatinine is now 4 mg/dl. Which of the following changes, compared with his previous visit, would you expect to find, assuming steady-state conditions and no changes in electrolyte intake or metabolism?

	Sodium Excretion Rate	Creatinine Excretion Rate	Creatinine Clearance	Filtered Load of Creatinine
A)	↔	↔	↓ by 50%	↓
B)	↔	↔	↓ by 50%	↔
C)	↔	↔	↓ by 75%	↓
D)	↓	↓	↔	↔
E)	↓	↓	↓ by 50%	↓

Answer: B

If efferent arteriolar resistance is more than 3X: Answer: ↓RPF, ↑oncotic pressure, ↓GFR

For questions 22+23+24:



22. In a patient with severe central diabetes insipidus caused by a lack of ADH secretion, which part of the tubule would have the lowest tubular fluid osmolarity?

23. Which part of the nephron reabsorbs the most water when giving ADH?

24. In a normally functioning kidney, which part of the tubule has the lowest permeability to water?

Answers:

22. E

23. E

24. C

020 DEN

1) patients with low GFR which pain killer should they avoid?

Answer: Non steroidal anti-inflammatory

2) all of the following contribute to autoregulation except?

Answer: Atrial natriuretic peptide(ANP)

3) Hormone increase efferent arteriole resistance and increase GFR?

Answer: ANG II

4) Which of the following doesn't happen in case of excessive aldosterone?

Answer: dehydration and acidosis

5) Which of the following is not a physiological regulator for aldosterone?

Answer: ANG I

6) Hormone increase efferent arteriole resistance and increase GFR? Answer: ANG II

7) In a patient with lack of ADH, which segment is the most diluted?

- a)Thin descending
- b)Thin ascending
- c)Thick ascending
- d) Late distal + Cortical collecting

ANSWER D

8) Which of the following not secreted from kidney ?

- A)Renin
- B) Erythropoietin
- C) ADH
- D) Colcitriol

ANSWER : C

9) what happen when FF increase?

Answer: GFR increase from afferent to efferent

10) Which of the following is a function of the kidney?

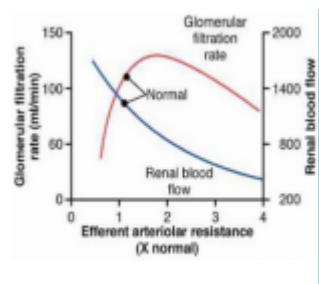
- a)production of RBC.
- b)eliminate CO<sub>2</sub>
- c)balance of electrolytes

ANSWER : C

12)Highest tubular fluid to plasma concentration in PCT?

Answer: creatinine

13) which statement is true about this curve:



Answer: when Re increases 3 folds, GFR decreases.

Use the following laboratory test results to answer these questions(14-16):

Urine plasma flow = 1ml/min

Urine inulin concentration = 100 mg/ml

Plasma inulin concentration = 2 mg/ml

Urine urea concentration = 50 mg/ml

Plasma urea concentration = 2.5 mg/ml

14) what is the GFR?

- a.50 ml/min.
- b. 50 ml/min

c.100 ml/min

d. 125 ml/min

ANSWER A

15) What is the net urea reabsorption rate?

a. 0 mg/min.

b. 25 mg/min.

c. 50 mg/min

d.75 mg/min

ANSWER D

16) what is the clearance value?

a. 0 mg/min

b. 25 mg/min.

c. 50 mg/min

d.75 mg/min

e.100 mg/m.

ANSWER C

**DEN 019**

1-Which of the following would tend to induce hyperkalemia?

- a. A tumor secreting excess aldosterone.
- b. A mild increase in potassium intake in a person with normal kidneys and normal aldosterone system
- c. A tumor secreting renin.
- d. Long-term treatment with a diuretic such as furosemide
- e. Long-term treatment with a diuretic such as amiloride

ANSWER : E

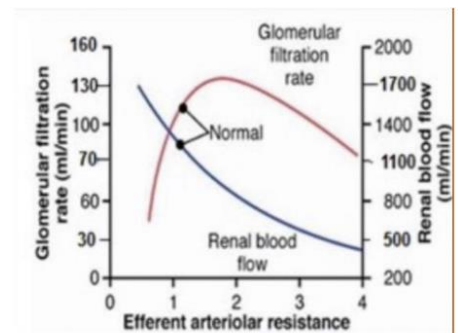
2-The highest renal clearance rate of any substance would not exceed:

- a. Glomerular filtration rate
- b. Renal plasma flow
- c. Renal blood flow
- d. Tubular reabsorption rate
- e. None of the above mentioned is correct.

ANSWER : B

3-Glomerular filtration rate (GFR) when efferent (e) arteriolar resistance is 2X normal, is higher than GFR when resistance is 4X normal due to the following:

- a. Glomerular capillaries oncotic pressure is lower at 4X (e) resistance due to decreased renal blood flow.
- b. Glomerular capillaries oncotic pressure is higher at 4X (e) resistance due to decreased renal blood flow.



- c. Glomerular hydrostatic pressure is higher at 2X (e) resistance than 4x (e)
- d. Capsular hydrostatic pressure is higher at 4X (e) resistance than 2X (e)
- e. Capsular oncotic pressure is higher at 4X (e) resistance than 2X (e)

ANSWER : B

4- The effect of ANP (atrial natriuretic peptide) is the following:

- a. Stimulates ANG II production.
- b. Stimulates release of ADH (anti diuretic hormone).
- c. Stimulates aldosterone.
- d. Decreases renal blood flow and increases reabsorption.
- e. Increases GFR and decreases reabsorption.

ANSWER : E

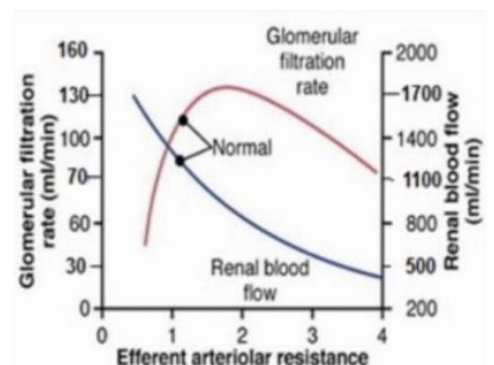
5- Which of the following substances would be filtered least readily by the glomerular capillaries?

- a. Polycationic dextran with a molecular weight of 5,000
- b. Polyanionic dextran with a molecular weight of 60 000
- c. Polycationic dextran with a molecular weight of 25,000
- d. Neutral dextran with a molecular weight of 25,000
- e. Polyanionic dextran with a molecular weight of 25,000

ANSWER : B

6- Calculate filtration fraction from the figure when efferent arteriolar resistance equals 3X normal:

- a. 24%
- b. 4%
- c. 12%
- d. 30%
- e. 2%





ANSWER : D

7-Estimate GFR from the following data: Plasma creatinine concentration= 0.0125 mg / ml

Urine creatinine concentration = 0.125 mg/ ml, Urine flow rate = 1 ml/min.

- a. 125 ml/min
- b. 0.01 ml/min
- c. 12.5 ml/min
- d. 10 ml/min
- e. 100 ml/min

ANSWER : D

8-A hypertensive 55 year old female was treated with furosemide (Lasix) for 3 weeks. Which of the following findings you would expect after the 3 weeks of treatment compared to before treatment with this drug?

- a. Increase in arterial pressure, decrease in extracellular fluid, decrease in plasma potassium.
- b. Decrease in arterial pressure, decrease in extracellular fluid, increase in plasma potassium.
- c. Decrease in arterial pressure, decrease in extracellular fluid, decrease in plasma potassium.
- d. Increase in arterial pressure, increase in extracellular fluid, decrease in plasma potassium.
- e. Decrease in arterial pressure, increase in extracellular fluid, decrease in plasma potassium.

ANSWER :C

9- Effects of angiotensin II on filtration and reabsorption rates under physiologic limits are the following:

- a. Decreases filtration rate, decreases reabsorption rate.
- b. No effect on filtration rate, no effect on reabsorption rate.
- c. Increases filtration rate, decreases reabsorption rate.
- d. Decreases filtration rate, increases reabsorption rate.
- e. Keeps normal filtration rate, increases reabsorption rate.

ANSWER : E

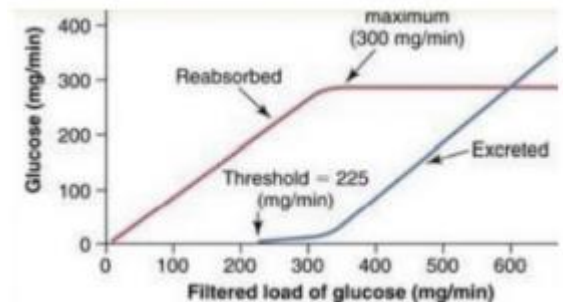
10-The following is TRUE regarding non-steroidal anti-inflammatory (NSAIDs) drugs:

- a. They reduce the coefficient of filtration, thus decrease GFR.
- b. They are vasodilators, they decrease afferent arteriolar resistant and increase GFR.
- c. They do not affect GFR.
- d. They inhibit synthesis of prostaglandins, reducing vasodilation of afferent arterioles and decrease GFR.
- e. They are vasoconstrictor agents; they increase afferent arteriolar resistant and decrease GER.

ANSWER : D

11- A 32-year-old man complains of frequent urination. His estimated GFR is 150 ml/min. His plasma glucose is 4 mg/ ml. Assuming that his renal transport maximum for glucose is normal, as shown in the figure below, what would be this patient's approximate rate of urinary glucose excretion?

- a. 300 mg/min
- b. 150 mg/min
- c. 0 mg/min
- d. 100 mg/min
- e. 200 mg/min



ANSWER : A

12-Which of the following changes would be expected in a patient with diabetes insipidus due to a lack of antidiuretic hormone (ADH) secretion?

- a. Decreased plasma osmolarity concentration, decreased sodium concentration, decreased plasma renin, normal urine volume.
- b. Normal plasma osmolarity concentration, normal sodium concentration, increased plasma renin, increased urine volume

- c. Increased plasma osmolarity concentration, increased sodium concentration, increased plasma renin, increased urine volume.
- d. Increased plasma osmolarity concentration, increased sodium concentration, normal plasma renin, normal urine volume
- e. Normal plasma osmolarity concentration, normal sodium concentration, decreased plasma renin, increased urine volume.

ANSWER : C

13-In diabetes mellitus, increased tubular fluid osmotic pressure will result in:

- a. Increased interstitial osmotic pressure and increased water reabsorption.
- b. Increased peritubular capillaries oncotic pressure and increased water reabsorption.
- c. Decreased water reabsorption, diuresis and polyuria.
- d. Increased peritubular capillaries hydrostatic pressure and decreased water reabsorption.
- e. Increased arterial hydrostatic pressure and GER.

ANSWER : C

14-Which of the following changes would you expect to find after administering a vasodilator drug that caused a 50% decrease in afferent arteriolar resistance and no change in arterial pressure?

- a. Increased renal blood flow, increased GFR, and increased peritubular capillary hydrostatic pressure, decreased reabsorption.
- b. Increased renal blood flow, increased GFR, and decreased peritubular capillary hydrostatic pressure, increased reabsorption.
- c. Decreased renal blood flow, decreased GER, and decreased peritubular capillary hydrostatic pressure, decreased reabsorption.
- d. Increased renal blood flow, increased GFR, and no change in peritubular capillary hydrostatic

pressure, increased reabsorption.

e. Decreased renal blood flow, decreased GFR, and increased peritubular capillary hydrostatic pressure,

increased reabsorption.

ANSWER : A

نشالله هاي علامتك بالسيستم

15-Which of the following tends to decrease potassium secretion by the cortical collecting tubule?

- a. High sodium intake
- b. Acute hyperkalemia
- c. Increased plasma sodium concentration
- d. A diuretic that inhibits the action of aldosterone (e.g., spironolactone)
- e. Increased potassium intake

ANSWER : D

16-In normal kidneys, which of the following is true of the osmolarity of renal tubular fluid that flows through the early distal tubule in the region of the macula densa?

- a. Usually, hypertonic compared with plasma.
- b. Usually, isotonic compared with plasma.
- c. Usually, hypotonic compared with plasma.
- d. Hypertonic, compared with plasma, in antidiuresis (ADH)
- e. Hypotonic, compared with plasma, with diuretics

ANSWER : C

17-Given the following data about substance X and GFR, calculate the rate of net reabsorption or net secretion. GFR =100 ml/min, plasma concentration of X= 0.14 mg/ ml, urine concentration of X= 2 mg/ml, urine flow = 1 ml/min:

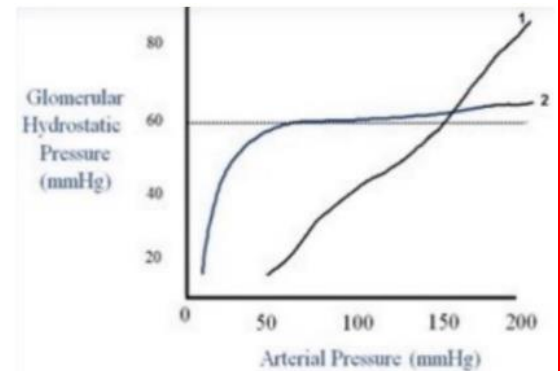
- a. secretion=3.4 mg/min
- b. Secretion=1.2 mg/min
- c. Reabsorption= 12mg/min

- d. Secretion= 0.6 mg/min
- e. Reabsorption=1.4 mg/min

ANSWER : C

18-Looking at the graph below representing data from two patients (1 and 2), which of the following is correct?

- a. In curve 2, tubuloglomerular feedback in this patient is impaired.
- b. In curve 2, the patient is most probably taking renin angiotensin system blockers.
- c. In both curve 1 and curve 2, renal blood flow and GFR are not affected by changing arterial blood pressure.
- d. In curve 1, the patient has no renal autoregulation.
- e. In curve 1, GFR will be constant from 50 to 200 mmHg arterial pressure.



ANSWER : D

19-Which of the following changes tends to increase peritubular capillary fluid reabsorption?

- a. Increased efferent arteriolar resistance.
- b. Decreased filtration fraction.
- c. Decreased angiotensin II.
- d. Increased renal blood flow.
- e. Increased blood pressure.

ANSWER : A

20-Pressure natriuresis occurs due to the following factor/s:

- a. Inhibition of renin angiotensin aldosterone system.
- b. Increased peritubular hydrostatic pressure.
- c. Increased glomerular hydrostatic pressure.
- d. Increased production of prostaglandins and EDRF (NO).

e. All of the above mentioned factors are corrected

ANSWER : E

**018 DEN**

1-A patient with uncontrolled diabetes and kidney disease has a GFR of 90 ml/min, a plasma glucose of 3mg/ml, and a transport max (T<sub>m</sub>) is 150 nm/min. What is the glucose excretion rate for this patient?

- A-435 mg/min
- B-285 mg/min
- C-150 mg/min
- D-120 mg/min
- E-0 mg/min

ANSWER : D

2-How would blockade of prostaglandins synthesis by non-steroidal anti-inflammatory drugs affect 20 glomerular filtration rate (GFR) and renal plasma flow (RPF) in a patient with impaired renal function?

- A-It will increase both GFR and RPF
- B-It will decrease both GFR and RPF
- C-It will have no effect on GFR or RPF
- D-It will increase GFR and decrease RPF
- E-It will decrease GFR and increase RPF

ANSWER : B

3-Effects of angiotensin II on filtration and reabsorption rates are the following:

- A-Decreases filtration rate, decreases reabsorption rate
- B-Prevents a decrease in filtration rate, increases reabsorption rate
- C-Decreases filtration rate, increases reabsorption rate
- D-Prevents an increase in filtration rate, decreases reabsorption

E-No effect on filtration rate, no effect on reabsorption

ANSWER : B

4-For kidney function evaluation of a 55-year-old diabetic man; Urine was collected in a 24-hour 4 period. Knowing the following results from analysis of his urine and plasma samples

Plasma creatinine = 0.01 mg/mL

Urine creatinine = 0.60 mg/ mL

Plasma potassium = 0.05 mmol/ml

Urine potassium = 0.2 mmol/ml

Urinary flow rate=1 ml/min

What is his approximate glomerular filtration rate (GFR)?

A-10 mL/min

B-30 mL/min

C-60 ml/min

D-80 mL/min

ANSWER : C

5-A tumor secreting aldosterone (primary aldosteronism) will cause the following:

A-Hypotension

B-Hypokalemia

C-Acidosis

D-Na<sup>+</sup> wasting

E-Fluid loss

1-D

2-B

3-B

4-C

5-B

ANSWER : B

6-Glomerular filtration rate (GFR) when efferent (e) arteriolar resistance is 2X normal is higher than GFR when resistance is 4X normal due to the following:

- A-Glomerular oncotic pressure is higher at 4X (e) resistance.
- B-Glomerular hydrostatic pressure is higher at 4X (e) resistance.
- C-Capsular hydrostatic pressure is higher at 4X (e) resistance
- D-Capsular oncotic pressure is higher at 4X (e) resistance
- E-None of the above is correct answer.

ANSWER : A

7-Reabsorption rate in the nephron is decreased by the following:

- A-Increased peritubular capillaries oncotic pressure
- B-Increased peritubular capillaries hydrostatic pressure
- C-Increased afferent arteriolar resistance
- D-Increased efferent arteriolar resistance
- E-Increased filtration fraction

ANSWER : B

8-What is the net renal tubular reabsorption rate of potassium in the patient described in the previous question? Knowing the following results from analysis of his urine and plasma samples

Plasma creatinine = 0.01 mg/mL

Urine creatinine = 0.60 mg/ mL

Plasma potassium = 0.05 mmol/mi

Urine potassium = 0.2 mmol/ml

Urinary flow rate=1 ml/min

A-Potassium is not reabsorbed, instead secreted in this example

B-3.2 mmol/min

C-2.8 mmol/min



D-0.280 mmol/min

E-1.8 mmol/min

ANSWER : C

9-In the absence of ADH, tubular fluid in the following nephron segment has the lowest osmolarity of all other nephron segments:

A-Early Distal convoluted tubule

B-Late distal and collecting duct

C-Thin descending limb of Henle

D-Proximal convoluted tubule

E-Thick ascending limb of Henle

ANSWER : B

10-In diabetes mellitus, diuresis and polyuria occurs by the following mechanism:

A-Increased arterial hydrostatic pressure and GFR

B-Increased interstitial osmotic pressure and increased water reabsorption

C-Increased tubular fluid osmotic pressure and decreased water reabsorption

D-Increased peritubular capillaries oncotic pressure and increased water reabsorption

E-Increased peritubular capillaries hydrostatic pressure and decreased water reabsorption

ANSWER : C

11-Pressure natriuresis occurs by the following mechanism:

A-Stimulation of renin angiotensin system

B-Increase in GFR and decrease in Na<sup>+</sup> reabsorption rate

C-Stimulation of aldosterone

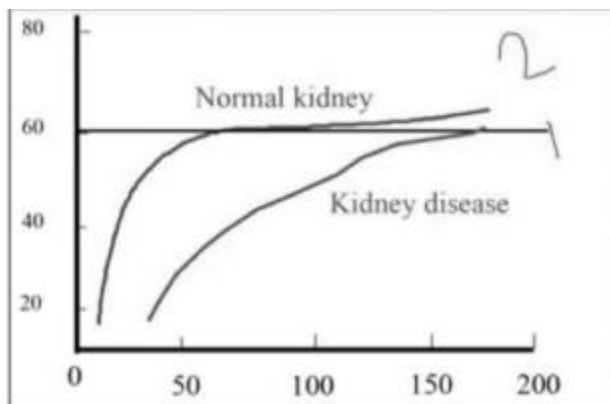
D-Stimulation of antidiuretic peptide (ADH)

E-Decrease in peritubular hydrostatic pressure

ANSWER : B

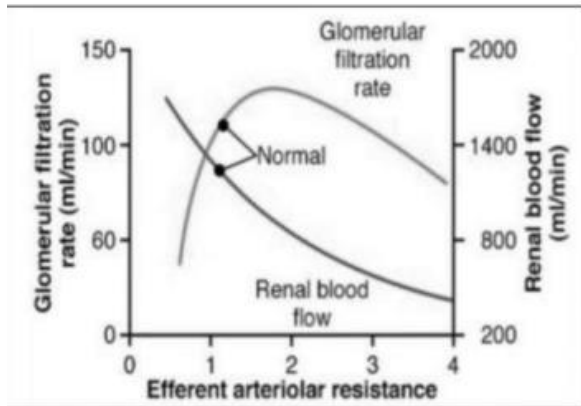
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Q1: what is true regarding this graph?



Answer: renal autoregulation is impaired in 1

Q2: The graph shows GFR and RBF for efferent arteriole, what changes would be in the afferent arteriole graph?



Answer: RBF is the same and GFR decreases all the way

Q3: Angiotensin II

Answer: prevents decrease in filtration and increases reabsorption

Q4: To decrease renal reabsorption:

Answer: increase peritubular hydrostatic pressure

Q5: Given that Urine flow= (number) and the concentration of creatinine in urine= (number) and the plasma concentration of creatinine equals= (number) What is the value of GFR?

To answer the question, you should remember that for creatinine  $GFR = \text{Clearance}$

Answer:  $GFR = 100$

Q6: Highest Filterability

Answer: small radius, cationic

Q7: ANP:

Answer: inhibits angiotensin II

Q8: aldosterone secreting tumor

Answer: hypokalemia

Q9: Diabetes mellitus causes an:

Answer: increase in osmotic pressure and decrease water reabsorption

Q10: Giving anti-inflammatory drug that causes Inhibition of prostaglandin synthesis for a patient with impaired filtration, GFR, RBF?

Answer: GFR decreases, RBF decreases

Q11: Diabetes mellitus:

increase osmotic and decrease water reabsorption

Q12: determine the filtration fraction from a given data.

تخيل الداتا يا غالي

Q13: The maximum possible clearance rate of a substance that is completely cleared from the plasma by the kidneys would be equal to renal plasma flow, so we use.....clearance to estimate RPF.

Answer: Paraminohippuric acid (PAH)

Q14: given:

-Transport maximum from a graph

-GFR

-plasma Glucose

determine the glucose excretion for this patient?

Answer: first you have to calculate the filtered load which is (GF X plasma glu)

Then (glucose excretion= filtered load - transport maximum)

Q15:All of the following false regarding antidiuresis hormon except?

-secreted by posterior pituitary gland (not sure)

Q16: Place where most of nutrients (Na K HCO<sub>3</sub>) are reabsorbed:

Proximal

Q17: Place where H<sub>2</sub>O is reabsorbed only without nutrients:

Thin descending

Q18:place where Na/k/Cl channel and it's called diluting segment:

Thick ascending

Q19: if ADH is absent; in which of the following segments the filtrate will be

hypotonic:

Distal + collecting

Q20: which of the following happens if you have taken an anti-inflammatory drug?

- a. vasoconstriction on afferent.
- b. Stop producing prostaglandin so inhibits the vasodilation.
- c. GFR decreases and  $k$  decreases.

Q21:something increase reabsorption:

Increasing resistance of efferent

Q22:something increases GFR:

A-increasing in  $K_f$

B-increasing in Bowman's hydrostatic pressure

Ans:A

Q22:something increases GFR:

A-increasing in Kf

B-increasing in Bowman's hydrostatic pressure

Ans:A

Q23:

~ أسئلة عن الاتهاب التي بصير فيهن امتصاص المواد في الكلية  
مذكور بعضهن

Most of glucose reabsorption in proximal tubule  
Passive reabsorption of minerals and not permeable to  
water in thin ascending

Forisimide acts on  
الحليته بس ناسيه  
وكانه كان في كمان فرعين لو ناس مذكور

~ Na concentration in blood equals 300g/ml and GFR

=150

Transport maximum =350

Calculate sodium excreted

100

Q24:

~ إذا أسعفتني ذاكترى  
المسوال تبع د.إباء كانت أرقامه

Urine flow rate=1

Inulin concentration in urine=120

Inulin concentration in plasma=2

Urea concentration in urine=50

Urea concentration in plasma=2,5

أربع أفرع

GFR=60(1

filtered load of urea=150(2

??reabsorption of urea=100(3

????secretion of urea=0(4