

UGS Midterm 2012-2013

1. All of the following can be changed by hemodialysis EXCEPT:

- (a) Hemoglobin concentration**
 - (b) Plasma K⁺
 - (c) Urea
 - (d) Plasma acid-base balance
 - (e) Blood Volume
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2. When you increase the plasma concentration of PAH, which of the following will increase:

- (a) Clearance
 - (b) Excretion rate**
 - (c) Filtration fraction
 - (d) Production Rate
 - (e) Reabsorption Rate
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3. All of the following regarding clearance is correct EXCEPT:

- (a) It can rise, fall or stay the same if the relative solute concentration increases.
 - (b) Glucose clearance is normally zero.
 - (c) Inulin clearance is always constant regardless of plasma concentration.
 - (d) If greater than GFR, always indicative of secretion.**
 - (e) If less than GFR always indicative of reabsorption.
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4. Where does renal vascular resistance reside the most:

- (a) Afferent arterioles
 - (b) Efferent arterioles**
 - (c) Glomerular capillaries
 - (d) Peritubular capillaries
 - (e) Renal vein
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5. Under normal physiological conditions and no exercise, compared to plasma, urine has:

- (a) Lower pH, lower osmolarity, higher K⁺
 - (b) Higher pH, lower osmolarity, higher K⁺
 - (c) Higher pH, higher osmolarity, higher K⁺
 - (d) Lower pH, higher osmolarity and higher K⁺**
 - (e) Equal pH, higher osmolarity, equal K⁺
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6. Which of the following regarding acid-base balance is FALSE:

- (a) During respiratory acidosis, CO₂ increases and pH decreases.
 - (b) During compensation of respiratory alkalosis, CO₂ increases, HCO₃ increases and pH is increased.
 - (c) Metabolic acidosis can be due to vomiting.
 - (d) Chronic renal failure is associated with metabolic acidosis.
 - (e) During metabolic acidosis, HCO₃ decreases as a compensatory mechanism.**
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7. Under very high levels of ADH, where is water most absorbed?

- (a) Proximal Tubules**
 - (b) Late distal tubules
 - (c) Early distal tubules
 - (d) Collecting ducts
 - (e) Collecting tubules
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8. All of the following regarding ECF are true EXCEPT:

- (a) In ECF, total anion and cation concentration is the same.
 - (b) Plasma osmolarity can be measured using sodium concentration.
 - (c) Sodium is the major ECF cation.
 - (d) Proteins are the major ECF buffers.**
 - (e) Both ICF and ECF have the same osmolarity.
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9. All of the following regarding puberty are true EXCEPT:

- (a) Over the past 100 years, the age of puberty has significantly declined.
 - (b) Delayed puberty may be due to hyperprolactinemia.
 - (c) Puberty needs a concentrated level of GH and IGF-1.
 - (d) Distance from equator and lower altitude cause delayed puberty.**
 - (e) Climatic and geographic factors also contribute to the timing of puberty.
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10. Which of the following regarding testosterone and DHT is FALSE:

- (a) Testosterone is needed for muscle mass and upper body fat.
 - (b) High testosterone levels are associated with acne.**
 - (c) DHT can be converted to other steroids.
 - (d) Testosterone can inhibit both GnRH and LH when present in high concentrations.
 - (e) DHT is much more potent than testosterone.
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11. All of the following help the sperm to reach the ova EXCEPT:

- (a) Cervical and uterine activity increase during orgasm.
 - (b) Cervix dilatation during orgasm.
 - (c) Mucous in cervical canal help movement of the sperm.
 - (d) Oxytocin concentration increases under progesterone dominance of orgasm.**
 - (e) Huge number of sperms present.
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12. A woman was injected with estrogen 48 prior to ovulation, which of the of the following is FALSE regarding this case:

- (a) FSH levels increase.
 - (b) LH levels increase.
 - (c) She will ovulate.
 - (d) She will not ovulate.**
 - (e) Endometrium continues to grow.
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13. What are the things needed to produce estradiol in men?

- (a) LH only
 - (b) FSH and LH
 - (c) LH and Sertolli cells
 - (d) LH, FSH, Sertolli and Leydig cells**
 - (e) Leydig and LH
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14. What is the cause of morning sickness in females?

- (a) DHT
 - (b) hCSM and TSH
 - (c) TSH
 - (d) hCG and T3**
 - (e) Estradiol
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15. All of the following are functions of hCG EXCEPT:

- (a) Immunosuppressive agent
 - (b) Endocrine growth on the trophoblast cells**
 - (c) Has a growth promoting ability
 - (d) Has a protease action
 - (e) Maintains corpus leutem
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16. Perineal membrane is pierced only by 3 structures. *(wants the wrong statement)*
17. Posterior relation to the left kidney: pleura behind ribs. *(wants the wrong statement)*
18. Spermiogenesis begins in the testes and ends in the epididymis. *(wants the wrong statement)*
19. Turner's syndrome is associated with secondary amenorrhea. *(wants the wrong statement)*
20. Congenital polycystic disease in infants is associated with cysts in all parts of the nephron. *(wants the wrong statement)*
21. Enlargement of the median lobe of the prostate will obstruct the internal urethral orifice.
22. Corpus luteum secretes inhibin to prevent growth of another generation of follicles during the menstrual period. *(wants the wrong statement)*
23. Tortuous glands of the endometrium are seen during the follicular phase of the menstrual cycle. *(wants the wrong statement)*
24. Cut of a segmental artery of the kidney will not cause necrosis to a renal segment. *(wants the wrong statement)*
25. The uterine tube and vas deferens both have 2 layers of smooth muscle. *(wants the wrong statement)*
26. Metastasis in breast cancer won't reach the lateral and central group of lymph nodes, but only the anterior and posterior ones. *(wants the wrong statement)*
27. The ejaculatory duct is derived from the mesonephric duct (Wolfian duct).
28. Prostaglandins cause vasoconstriction of the afferent arterioles. *(wants the wrong statement)*
29. Both the seminal vesicle and epididymis need DHT for differentiation. *(wants the wrong statement)*
30. The secondary follicle doesn't contain a secondary oocyte.
31. Lactation helps in milk production, milk ejection and contraction of the uterus.