
NAME	LAST (PLEASE PRINT)	FIRST
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EXAMINATION III I. B. 131
DECEMBER 11, 1996.

Part I. Mark the correct answer.

1. The stored form of the thyroid hormone in the colloid of the follicles in the thyroid gland is called
 - a. triiodothyronine
 - b. thyroxine
 - c. thyroglobulin
 - d. thyrocalcitonin
2. The parathyroid gland secretes the hormone _____ which acts on osteoclasts to destroy bone and release calcium.
 - a. thyroglobulin
 - b. parathormone
 - c. osteoclast liberating hormone
 - d. none of the above
3. Estrogen is formed by the _____ which surrounds the maturing follicle in the ovary
 - a. theca interna
 - b. theca externa
 - c. corpus luteum
 - d. corona radiata
4. Progesterone is formed by the _____ which enlarges in the ovary after ovulation.
 - a. theca interna
 - b. corpus luteum
 - c. ovum
 - d. uterine tubes
5. The interstitial cells of the testes produce
 - a. FSH
 - b. LH
 - c. testosterone
 - d. aldosterone

6. Follicle stimulating hormone acts on the follicular cells in the ovary and the _____ in the testes.
- sertoli cells
 - interstitial cells
 - spermatogonia
 - spermatocytes
7. Oxytocin is formed by the supraoptic and paraventricular cells of the hypothalamus and acts on the
- smooth muscle cells of the male and female reproductive system
 - mucous membrane of the male and female reproductive system
 - pancreas
 - serosa of the female reproductive system
8. Trypsinogen which is formed in the pancreas causes the break down of _____.
- carbohydrates
 - fats
 - proteins
 - metabolites
9. The endocrine portion of the pancreas is called the
- acinar cells
 - juxtaglomerular apparatus
 - macula densa
 - islets of Langerhans
10. Aldosterone liberated from the adrenal cortex acts on the
- loop of Henle
 - distal convoluted tubules to resorb hydrogen ions
 - distal convoluted tubules to resorb water
 - proximal convoluted tubules to resorb vitamin C
11. Glucagon is formed by the alpha cells in the pancreas to
- lower blood sugar
 - raise blood phosphates
 - stimulate the release of insulin
 - raise blood sugar

reabsorb
→

12. Which structures do not form serotonin?
- nerve cells
 - platelets
 - small intestine epithelial cells
 - thyroid follicular cells
13. What is the name of the substance formed by the juxtaglomerular apparatus?
- renin
 - rennin
 - aldosterone
 - ADH
14. What is the name of the substance formed by the infant gastric mucosa to curdle milk?
- renin
 - rennin
 - HCl
 - pepsinogen
15. What structure is not involved in blood formation?
- fetal liver
 - bone marrow
 - pancreas
 - lymph nodes
16. What gland does not pour secretions into the digestive system?
- submandibular salivary gland
 - liver
 - islets of Langerhans
 - parotid
17. In diabetes mellitus, the pancreatic beta cells are hypoactive; in diabetes insipidus, the _____ are hypoactive.
- pinealocytes
 - proximal convoluted tubules
 - supraoptic nucleus cells
 - oxyntic cells

18. The left kidney is located between
- L1 and L4
 - T12 and L3
 - T11 and L2
 - L2 and L5
19. Which ligament is not related to the uterus or Fallopian tubes or the ovary?
- round
 - ovarian
 - mesovarium
 - falciform
20. After menstruation, the endometrium enters the _____ phase.
- ischemic
 - proliferative
 - secretory
 - ovulation → *ovulatory*
21. The vagina receives its secretions from the
- endometrium of the uterus
 - urethra
 - vaginal mucosa
 - submucosa of the vagina
22. Arterial blood is brought to the brain via the internal carotids and the
- brachiocephalics
 - external carotids
 - vertebrals
 - maxillaries
23. Which is not a division of the male urethra?
- prostatic
 - prostratic
 - membranous
 - cavernous

24. If glucose and amino acids find their way into the glomerular filtrate, where in the kidney tubular system are they reabsorbed?
- proximal convoluted tubules
 - loop of Henle
 - distal convoluted tubules
 - collecting ducts
- 25. What substance emulsifies fats?
- cholecystokinin *cholecystatini*
 - secretin
 - bile
 - pepsinogen
26. What area is not part of the large intestine?
- ascending colon
 - sigmoid colon
 - cecum
 - ileum
27. Which of these functions is not attributed to the liver?
- produces fibrinogen
 - destroys old RBC
 - metabolizes CHO, proteins and fats
 - stores bile
28. The length of the female urethra is _____ inches long
- 8
 - 22
 - 1 1/2
 - 23
29. The glomerulus differs from all other capillary beds in the body because it
- is both fed and drained by arterioles
 - receives only venous blood
 - its blood drains into the Bowman's capsule
 - is both fed and drained by veins

- 30. The surface of the stomach mucosa is lined with tubular
- a. gastric glands
 - b. ~~jaenia coli~~ TAENIAE COLI
 - c. crypts of Lieberkuhn
 - d. epiploic appendages
31. Which function of the tongue is not correct?
- a. helps mix food with saliva
 - b. aids in swallowing
 - c. houses most of the taste buds
 - d. has mucous cells which secrete saliva
- 32. The largest salivary gland, the parotid pours its secretions into the mouth
- a. opposite the middle incisors
 - b. opposite the second upper molar
 - c. below the frenulum
 - d. none of the above
33. The bulk of the tooth is
- a. dentine
 - b. enamel
 - c. cementum
 - d. periodontal membrane
34. The widest part of the digestive tract is the stomach; which function is not attributed to the stomach?
- a. secretes pepsin, a protein digesting enzyme
 - b. collects bile
 - c. forms HCl
 - d. has many mucous cells
35. The pyloric sphincter lies between the
- a. ileum and the cecum
 - b. duodenum and the jejunum
 - c. esophagus and the stomach
 - d. stomach and the duodenum

36. The rectum is usually empty. Strong contractions for defecation are made possible by the rectum's well-developed longitudinal smooth muscle coat (taeniae coli are absent). What part of the large intestine leads to the rectum?
- cecum
 - descending colon
 - transverse colon
 - sigmoid colon
37. The three pound liver is made of lobules with sinusoids. What flows through the sinusoids?
- only venous blood
 - only arterial blood
 - bile mixed with arterial blood
 - arterial blood mixed with hepatic portal venous blood
38. What do these cells have in common? Kupffer cells, dust cells, granular leukocytes.
- all are blood cells
 - all are phagocytic cells
 - all are produced in the bone marrow
 - nothing in common
39. Which statement is true about the peritoneal cavity?
- it is filled with air
 - like the pleural and pericardial cavities, it is a potential space containing serous fluid
 - the kidneys lie within it
 - the ureter lies within it
40. The amino acids, products of protein digestion, are absorbed into the
- stomach
 - small intestine
 - large intestine
 - lacteals

41. The hepatopancreatic ampulla (area of junction) lies in the wall of the
- duodenum
 - liver
 - stomach
 - large intestine
42. What function is not one carried out by the nephron?
- filtration
 - reabsorption
 - secretion
 - an action stimulated by ADH
43. Into what part of the bladder do the ureters enter?
- superior anterior
 - posterior inferior
 - superior posterior
 - anterior inferior
44. Hattie, aged 55, is awakened by excruciating pain that radiates from her right abdomen to the groin region. The pain is not continuous but recurs at intervals of 2-3 minutes. Diagnose her problem.
- renal failure on the right side
 - pancreatitis
 - a kidney stone blocking the right ureter
 - none of the above
45. What is the most important filtration structure in the nephron?
- the podocytes
 - the glomerular epithelium
 - the basement membrane
 - the parietal layer of the Bowman's capsule
46. The ductus deferens joins the _____ before entering the prostate gland.
- ureter
 - urethra
 - duct of the seminal vesicle to form the ejaculatory duct
 - epididymis

47. The epithelium of the _____ contains stereocilia that transfer nutrients and secretions to the maturing sperm that are stored in the central lumen of this structure.
- prostate
 - testes
 - scrotum
 - epididymis
48. When the sperm enter the inside of the prostate gland, how do they reach the exterior of the body?
- through the ejaculatory duct
 - through the ureter
 - through the urethra
 - through the vas deferens
49. What is circumcision?
- removing the circular smooth muscle from the lower bowel
 - removing the external sphincter of the urethra
 - removing the prepuce or foreskin forming a cuff around the base of the glans of the penis
 - none of the above
50. Though the human male ejaculates over 200,000,000 sperm per ejaculation, the human female only ovulates about _____ ova in her entire life time.
- 100,000,000
 - 100,000
 - 400
 - 100

Part II. Mark A= true; or B=false

51. The petrous portion of the temporal bone contains the cochlea.
52. The esophagus begins at the level of the 6th thoracic vertebra.
53. The duodenum, the first part of the small intestine, is only 12 fingers long.
54. In cirrhosis of the liver, the hepatic cells are replaced by connective tissue so the brain is essentially deprived of glucose.

55. The skin serves to maintain body temperature and to act as an excretory organ.
56. The cells in the skin degrade in a process involving keratinization.
57. In the stratum basale are found melanocytes.
58. There is no melanin pigment in the soles or palms.
59. Nails are modified keratinized epidermal cells.
60. Blisters are formed with fluid between the dermis and hypodermis.
61. In the female the rectum is anterior to the vagina.
62. The pancreas and the anterior pituitary are both endocrine and exocrine glands.
63. The outer and middle ear functions differ from the inner ear functions in that they are only concerned with hearing; whereas the inner ear is concerned with hearing and equilibrium.
64. Static equilibrium is a sense of balance noted by receptor cells in the macula in the utricle and saccule of the inner ear.
65. The cristae are the hearing receptors in the coclea.
66. The organ of Corti is the receptor for the rotational acceleration of the head.
67. The movement of the basilar membrane causes the tips of the hair cells embedded in the tectorial membrane to create an impulse in the vestibular nerve.
68. The tympanic membrane is made of epithelial cells and connective tissue.
69. The coclea has both a bony and membranous labyrinth.
70. Epithelium, nerve, muscle and connective tissues are all one needs to make a human body!
LOVE CONQUERS ALL