Quiz Yourself: Chapter 22

Choices can be used more than once or not at all

1-5. Matching

A)	Peptidase	Emulsifies fats	1) __B__
B)	Bile salts	Breaks down fats in intestine	2) __E__
C)	Amylase	Breaks down protein in stomach	3) __D__
D)	Pepsin	Breaks down peptides to amino acids	4) __A__
E)	Lipase	Breaks down complex carbohydrates to disaccharides	5) __C__

6-10. Matching

A)	Typically not absorbed through intestinal epithelium	Amino acids	6) __C__
B)	Absorbed into intestinal lymphatic vessels	Triglycerides	7) __B__
C)	Absorbed into intestinal capillaries	Large proteins	8) __A__
		Monosaccharides	9) __C__
		Complex carbohydrates	10) __A__

11-15. Matching

A)	Parasympathetic N.S.	Increases salivation	11) __A__
B)	Sympathetic N.S.	Increases secretion of fluids by pancreas	12) __A__
C)	Somatic N. S.	Decreases blood flow of gastrointestinal tract	13) __B__
		Increases motility of stomach and small intestine	14) __A__
		Increases secretion of HCl and pepsinogen by stomach	15) __A__

16-20. Matching

A)	Increases secretion of exocrine pancreas	Leptin	16) __C__
B)	Increases secretions of stomach	Ghrelin	17) __D__
C)	Decreases appetite	Gastrin	18) __B__
D)	Increases appetite	Secretin	19) __A__
E)	A & C	Cholecystokinin	20) __E__

Fill in

21. Swallowing raises the larynx by contraction of the __**digastricus**__ muscle.

22. In the stomach __HCl__ plays a major role in disrupting phospholipids.

23. Glucose is absorbed through the apical membrane by __**Na+**__ linked __**co-transporter**__.

24. Glucose is absorbed through the basolateral membrane by __**facilitative**__ transporters.

25. Fatty acids and glycerol are recombined inside of digestive epithelial cells to form __**triglycerides**__ coated in __**protein**__.

Study Questions

1. Explain how large carbohydrates, proteins, and fats are broken down into the smaller substances that are absorbed.
2. Explain how nutrients are absorbed through the digestive epithelium and into the blood
3. Explain how nerves and hormones control and coordinate the digestive process.

Quiz Yourself: Chapter 23

Choices can be used more than once or not at all

1-5. Matching

A)	Lipolysis	formation of glucose from amino acids or fatty acids	1) __E__
B)	Glycolysis	formation of glucose by the breakdown of glycogen	2) __D__
C)	Glycogenesis	formation of glycogen from glucose	3) __C__
D)	Glycogenolysis	breakdown of glucose	4) __B__
E)	Gluconeogenesis	breakdown of fat	5) __A__

6-10. Matching

A)	Glycolysis	use(s) oxygen	6) __D__
B)	Decarboxylation	produce(s) CO_2	7) __E__
C)	Kreb's (TCA) cycle	produce(s) NADH	8) __E__
D)	Electron transport system	produce (s) 34 ATP	9) __D__
E)	Two or more of the above	produce(s) 2 net ATP	10) __E__

11-15. Matching

A)	Glucagon	is stimulated by low blood glucose	11) __A__
B)	Insulin	is stimulated by elevated blood glucose	12) __B__
C)	None of the above	causes in increase in glucose uptake by cells	13) __B__
		causes the breakdown of glycogen to glucose	14) __A__
		is stimulated by glucose dependent insulinotropic H. (GDIH)	15) __B__

16-20.

A)	Insulin	Increases gluconeogenesis	16) __E__
B)	Cortisol	Decreases glucose uptake	17) __B__
C)	Glucagon	Increases glucose uptake	18) __A__
D)	Epinephrine	Increases glycogenolysis	19) __E__
E)	Two or more of the above	Increases glycogenesis	20) __A__

Fill in

21. __**Cortisol**__.(a hormone) increases lipolysis and gluconeogenesis, and inhibits glucose uptake

22. __**Glucagon**__ (a hormone) increases breakdown of glycogen.

23. __**Insulin**__.(a hormone) increases glucose uptake

24. __**Gluconeogenesis**__ is a process that converts 2 Pyruvate into Glucose.

25. __**Thyroxin**__ (a hormone) increases cellular metabolism.

Study Questions

4. Explain the metabolic role of monosaccharides, amino acids, and fatty acids after they are absorbed into the blood (absorptive state).
5. Describe the major steps in the production of ATP from glucose.
6. Explain how stored glycogen, fat, and protein are metabolized to provide sources of energy (post-absorptive state).

Quiz Yourself: Chapter 24

Choices can be used more than once or not at all

1-5. Matching (dominant actions)

A)	FSH	increase spermatogenesis	1) __C__
B)	LH	stimulates sertoli cells to produce inhibin	2) __A__
C)	A and B	stimulates granulosa cells to produce estradiol	3) __A__
		stimulates interstitial cells to produce testosterone	4) __B__
		stimulates sertoli cells to produce testosterone binding globulin	5) __A__

6-10. Matching (dominant actions)

A)	Inhibin	increases production of LH by gonadotrophs in pituitary	6) __B__
B)	Estradiol	stimulates growth of endometrium of uterus	7) __B__
C)	Testosterone	inhibits growth of endometrium of uterus	8) __D__
D)	Progesterone	inhibits GnRh neurons in hypothalamus	9) __E__
E)	C and D	inhibits gonadotrophs in pituitary	10) __A__

11-15. Matching (dominant actions)

A)	FSH	stimulates ovulation	11) __B__
B)	LH	stimulates growth of ovarian follicle	12) __A__
		stimulates production of androgens by theca cells	13) __B__
		stimulates production of estradiol by granulosa cells	14) __A__
		stimulates conversion of the empty follicle into the corpus luteum	15) __B__

16-20. Matching (dominant actions)

A)	Progesterone	is produced by the chorion of the embryo	16) __C__
B)	LH	inhibits GnRH neurons of the hypothalamus	17) __A__
C)	hCG	absence causes the death of the corpus luteum	18) __D__
D)	B and C	absence causes the loss of the functional endometrium	19) __A__
E)	All of the above	stimulates the corpus luteum to produce progesterone	20) __D__

Fill in

21. Spermatogenesis occurs in the **_seminiferous_ _tubules_** of the testes.

22. Oogenesis begins in the **__ovary__** and often continues in the **__uterine__ __tube___**.

23. Production of testosterone is moderated by feedback inhibition of the **__GnRH__** neurons of the hypothalamus.

24. Vascular dilation of the erectile tissues depend on the release of **_nitric_ _oxide_**.

25. Production of **__hCG__** by the chorion maintains the corpus luteum.

Study Questions

1. Explain the general process of gametogenesis.
2. Explain the control of spermatogenesis by the hypothalamus, pituitary, and testes.
3. Explain the processes involved in sperm transport.
4. Explain the control of the menstrual cycle by the hypothalamus, pituitary, and ovaries.
5. Explain the role of ovarian hormones in the growth and death of the functional zone of the endometrium.