دور ما دو ۱۷٪ ۲

Term: Final Exam Marks: 60 marks Time Allowed: 1.5 hours Biochemistry

Kafr Elsheikh University Faculty of Dentistry

First year

#### Choose the correct answer: (1X30=30 Marks)

1- Niacin is synthesized in the body from

A. Tryptophan

B. Tyrosine

C. Glutamate

D. Aspartate

2- Iron is stored in the form of

A. Ferritin and transferrin

B. Transferrin and haemosiderin

C. Haemoglobin and myoglobin

D. Ferritin and haemosiderin

3- Zn is present as prosthetic group in this enzyme:

A. Carbonic anhydrase

B. Carboxy peptidase

C. Lactate dehydrogenase

D. All of these

4- In competitive enzyme activity inhibition

A. Apparent Km is decreased

B. Apparent Km is increased

C. Vmax is increased

D. Vmax is decreased

5- Which of the following is an example of the secondary structure of a protein?

A. Interaction with other polypeptide chains

B. The sequence ala-cys-gly-ser

C. Beta sheets

D. The overall three dimensional folding of the protein

6- Deficiency of Vitamin A causes

A. Xeropthalmia

B. Hypoprothrombinemia

C. Megaloblastic anemia

D. Pernicious anemia

7- \beta-carbon of a fatty acid is

A. Carbon number 2

B. Carbon number 3

C. The last carbon

D. The  $\omega$ -3 carbon

8- Which of the following provides the most energy?

A. Anaerobic glycolysis

B. Aerobic glycolysis

C. Gluconeogenesis

D. B oxidation of palmitic acid

1

9- Ketone bodies serve as a fuel for

A. Extrahepatic tissues

B. Hepatic tissues

C. Erythrocytes

D. Mitochondria

ŧ.		
		1
0- Multiple forms of the same enzymes are	known as	
A. Zymogens	B. Isoenzymes	
C. Proenzymes	D. Pre-enzymes	
11- Which of the normal range of ionized ca	cium in plasma is	
A. 2-4 mg/dl	B. 2-4 mEq/L	
C. 4-5 mg/dl	D. 4-5 mEq/L	
2- Riboflavin deficiency causes		
A. Cheilosis	B. Loss of weight	
C. Mental deterioration	D. Dermatitis	
(3- Fluorosis is caused due to		
A. Excessive intake of fluorine		
B. Low intake of fluorine		
C. Discoloration of the teeth due to low intake		
D. All of these		
14- Which of the following is not considered	a pyrimidine?	
A. Cytosine	B.Thymine	
C.Uracil	D. Guanine	
15- Which of the following refers to particulacid residues in a protein that is not affected	l by denaturation?	
A. Primary structure	B. Secondary structure	
A. Primary structure C. Tertiary structure	B. Secondary structure D. Quaternary structure	
C. Tertiary structure  16- Which of the following statements about th	D. Quaternary structure	nate
C. Tertiary structure  16- Which of the following statements about th synthetase I is <u>incorrect</u>	D. Quaternary structure	nate
C. Tertiary structure  16- Which of the following statements about the synthetase I is <u>incorrect</u> A. It takes place in the mitochondrial matrix	D. Quaternary structure e reaction catalyzed by carbamoyl phosph	nate
C. Tertiary structure  16- Which of the following statements about the synthetase I is incorrect  A. It takes place in the mitochondrial matrix  B. It involves the cleavage of 2 ATP molecules	D. Quaternary structure e reaction catalyzed by carbamoyl phosph per urea molecule	nate
C. Tertiary structure  16- Which of the following statements about th	D. Quaternary structure e reaction catalyzed by carbamoyl phosph s per urea molecule urea molecule	nate
C. Tertiary structure  16- Which of the following statements about the synthetase I is incorrect  A. It takes place in the mitochondrial matrix  B. It involves the cleavage of 2 ATP molecules  C. It consumes two molecules of ammonia per  D. The enzyme that catalyzes it is regulated by	D. Quaternary structure e reaction catalyzed by carbamoyl phosple s per urea molecule urea molecule N-acetylglutamate	
C. Tertiary structure  16- Which of the following statements about the synthetase I is incorrect  A. It takes place in the mitochondrial matrix  B. It involves the cleavage of 2 ATP molecules  C. It consumes two molecules of ammonia per  D. The enzyme that catalyzes it is regulated by	D. Quaternary structure e reaction catalyzed by carbamoyl phosph s per urea molecule urea molecule N-acetylglutamate high density lipoproteins (HDLs) is cor	<u>rect</u> ?
C. Tertiary structure  16- Which of the following statements about the synthetase I is incorrect  A. It takes place in the mitochondrial matrix  B. It involves the cleavage of 2 ATP molecules  C. It consumes two molecules of ammonia per  D. The enzyme that catalyzes it is regulated by  17- Which of the following statements about  HDLs transport dietary triacylglycerols (TAG)	D. Quaternary structure e reaction catalyzed by carbamoyl phosphosphosphosphosphosphosphosphosphos	<u>rect</u> ? .A
C. Tertiary structure  16- Which of the following statements about the synthetase I is incorrect  A. It takes place in the mitochondrial matrix  B. It involves the cleavage of 2 ATP molecules  C. It consumes two molecules of ammonia per  D. The enzyme that catalyzes it is regulated by  17- Which of the following statements about  HDLs transport dietary triacylglycerols (TAG)  HDLs are the largest of the lipoprotein particle	D. Quaternary structure e reaction catalyzed by carbamoyl phosphosphosphosphosphosphosphosphosphos	<u>rect</u> ?
C. Tertiary structure  16- Which of the following statements about the synthetase I is incorrect  A. It takes place in the mitochondrial matrix  B. It involves the cleavage of 2 ATP molecules  C. It consumes two molecules of ammonia per  D. The enzyme that catalyzes it is regulated by  17- Which of the following statements about  HDLs transport dietary triacylglycerols (TAG)  HDLs are the largest of the lipoprotein particle  HDLs are synthesized by the intestinal mucos	D. Quaternary structure e reaction catalyzed by carbamoyl phosple s per urea molecule urea molecule N-acetylglutamate high density lipoproteins (HDLs) is cor s. cs. al cells.	<u>rect</u> ? .A .B
C. Tertiary structure  16- Which of the following statements about the synthetase I is incorrect  A. It takes place in the mitochondrial matrix  B. It involves the cleavage of 2 ATP molecules  C. It consumes two molecules of ammonia per  D. The enzyme that catalyzes it is regulated by	D. Quaternary structure e reaction catalyzed by carbamoyl phosple s per urea molecule urea molecule N-acetylglutamate high density lipoproteins (HDLs) is cor s. cs. al cells.	rect? .A .B .C
C. Tertiary structure  16- Which of the following statements about the synthetase I is incorrect  A. It takes place in the mitochondrial matrix  B. It involves the cleavage of 2 ATP molecules  C. It consumes two molecules of ammonia per  D. The enzyme that catalyzes it is regulated by  17- Which of the following statements about  HDLs transport dietary triacylglycerols (TAG)  HDLs are the largest of the lipoprotein particle  HDLs are synthesized by the intestinal mucos:  HDLs can transport cholesterol from the tissue	D. Quaternary structure e reaction catalyzed by carbamoyl phosple s per urea molecule urea molecule N-acetylglutamate high density lipoproteins (HDLs) is <u>cor</u> es. al cells. es to the liver.	rect? .A .B .C
C. Tertiary structure  16- Which of the following statements about the synthetase I is incorrect  A. It takes place in the mitochondrial matrix  B. It involves the cleavage of 2 ATP molecules  C. It consumes two molecules of ammonia per  D. The enzyme that catalyzes it is regulated by  17- Which of the following statements about  HDLs transport dietary triacylglycerols (TAG)  HDLs are the largest of the lipoprotein particle  HDLs are synthesized by the intestinal mucos	D. Quaternary structure e reaction catalyzed by carbamoyl phosple s per urea molecule urea molecule N-acetylglutamate high density lipoproteins (HDLs) is <u>cor</u> es. al cells. es to the liver.	rect? .A .B .C
C. Tertiary structure  16- Which of the following statements about the synthetase I is incorrect  A. It takes place in the mitochondrial matrix  B. It involves the cleavage of 2 ATP molecules  C. It consumes two molecules of ammonia per  D. The enzyme that catalyzes it is regulated by  17- Which of the following statements about  HDLs transport dietary triacylglycerols (TAG)  HDLs are the largest of the lipoprotein particle  HDLs are synthesized by the intestinal mucos:  HDLs can transport cholesterol from the tissue	D. Quaternary structure e reaction catalyzed by carbamoyl phosple s per urea molecule urea molecule N-acetylglutamate high density lipoproteins (HDLs) is <u>cor</u> es. al cells. es to the liver.	rect? .A .B .C

e. Se

19- How many types of lipoproteins a	re there?
A. 2 C. 4	B. 6 D. 5
20- Which of the following is required	l as a component of blood hemoglobin?
A. Iron C. Magnesium	B. Calcium D. Copper
21- Addingto a breakfast	t of cereal will help your body absorb iron.
A. Milk C. Orange juice	B. Coffee D. Water
22- Vitamin B <sub>12</sub> is useful in the preven	ition and treatment of
A. Pernicious anemia C. Scurvy	B. Beri-beri D. Cataraet
23- Cholestrol is the precursor of	
A. Steroid hormones C. Both (A) and (B)	B. Vitamin A
24- The sugar which forms major con	ponent of nucleic acids (DNA and RNA) is
A. Ribose C. Galactose	B. Mannosc D. Maltose
25- Hydrolysis of sucrose yields	
<ul><li>A. Galactose and fructose</li><li>B. Galactose and glucose</li></ul>	B. Glucose and fructose D. Fructose and galactose
26- Amino acids are added to the	of the growing polypeptide chain
A. Amino terminus C. In the middle	B. Carboxy terminus
27- Humans are unable to digest	
A.Starch C.Complex carbohydrates	B.Denatured proteins D. Cellulose

v ,

Term: Final Exam Marks: 60 marks Time Allowed: 3 hours

# Biochemistry

Kafr Elsheikh University Faculty of Dentistry

First year

Choose the correct answer: (1X30=30 Marks)

1- Niacin is synthesized in the body from

A. Tryptophan

C. Glutamate

B. Tyrosine

D. Aspartate

CULY

2- Iron is stored in the form of

A. Ferritin and transferrin

C. Haemoglobin and myoglobin

B. Transferrin and haemosiderin

D. Ferritin and haemosiderin

· 3- Zn is present as prosthetic group in this enzyme:

A. Carbonic anhydrase

C. Lactate dehydrogenase

B. Carboxy peptidase

D. All of these

4- In competitive enzyme activity inhibition

A. Apparent Km is decreased

C. Vmax is increased

B. Apparent Km is increased

D. Vmax is decreased

5- Which of the following is an example of the secondary structure of a protein?

A. Interaction with other polypeptide chains

B. The sequence ala-cys-gly-ser

C. Beta sheets

D. The overall three dimensional folding of the protein

6- Deficiency of Vitamin A causes

A. Xeropthalmia

C. Megaloblastic anemia

B. Hypoprothrombinemia

D. Pernicious anemia

7- β-carbon of a fatty acid is

A. Carbon number 2

B. Carbon number 3

C. The last carbon

D. The  $\omega$ -3 carbon

8- Which of the following provides the most energy?

A. Anaerobic glycolysis

B. Aerobic glycolysis

C. Gluconeogenesis

D. β oxidation of palmitic acid

9- Ketone bodies serve as a fuel for

A. Extrahepatic tissues

C. Erythrocytes

B. Hepatic tissues

D. Mitochondria

10- Multiple forms of the same enzymes A. Zymogens C. Proenzymes	B. Isoenzymes D. Pre-enzymes	
11- Which of the normal range of ionize A. 2-4 mg/dl C. 4-5 mg/dl	ed calcium in plasma is B. 2-4 mEq/L D. 4-5 mEq/L	
12- Riboflavin deficiency causes A. Cheilosis C. Mental deterioration	B. Loss of weight D. Dermatitis	÷
13- Fluorosis is caused due to A. Excessive intake of fluorine B. Low intake of fluorine C. Discoloration of the teeth due to low int D. All of these	take	
14- Which of the following is not conside	ered a pyrimidine?	
A. Cytosine	B.Thymine	
C.Uracil	D. Guanine	
15- Which of the following refers to part acid residues in a protein that is not affe A. Primary structure C. Tertiary structure	ticularly stable arrangements of amino seted by denaturation?  B. Secondary structure  D. Quaternary structure	
	ut the reaction catalyzed by carbamoyl phosphate	
synthetase I is <u>incorrect</u> A. It takes place in the mitochondrial matri B. It involves the cleavage of 2 ATP molec C. It consumes two molecules of ammonia D. The enzyme that catalyzes it is regulated	cules per urea molecule a per urea molecule	
<ul> <li>17- Which of the following statements ab</li> <li>A. HDLs transport dietary triacylglycer</li> <li>B. HDLs are the largest of the lipoprote</li> <li>C. HDLs are synthesized by the intestir</li> <li>D. HDLs can transport cholesterol from</li> </ul>	ein particles. nal mucosal cells.	
18- Saliva contains all of the following g	xcept	
A. Hormones	B. Amylase	
C. Bacteria-killing enzymes	D. Lysozymes	2

19- How many types of lipoproteins are th	nere?
A. 2	В. 6
C. 4	D. 5
20- Which of the following is required as	a component of blood hemoglobin?
A. Iron	B. Calcium
C. Magnesium	D. Copper
21- Adding to a breakfast of	cereal will help your body absorb iron.
A. Milk	B. Coffee
C. Orange juice	D. Water
22- Vitamin $B_{12}$ is useful in the prevention	a and treatment of
A. Pernicious anemia	B. Beri-beri
C. Scurvy	D. Cataract
23- Cholestrol is the precursor of	
A. Steroid hormones	B. Vitamin A
C. Both (A) and (B)	
24- The sugar which forms major compo	nent of nucleic acids (DNA and RNA) is
A. Ribose	B. Mannose
C. Galactose	D. Maltose
25- Hydrolysis of sucrose yields	
A. Galactose and fructose	B. Glucose and fructose
B. Galactose and glucose	D. Fructose and galactose
26- Amino acids are added to the	of the growing polypeptide chai
A. Amino terminus	B. Carboxy terminus
C. In the middle	
27- Humans are unable to digest	
A. Starch	B. Denatured proteins
C. Complex carbohydrates	D. Cellulose
28- Vitamin-C is considered as a	
A. Water soluble	B. Fat soluble
C. Fat and water soluble	D. None of these

.

.

• '

	An example of the oxidative of		
	aspartate + α-ketoglutarate =		
В.	glutamate = α-ketoglutarate +	NH <sub>3</sub>	
C.	aspartate + hexanoic acid = g	iutamate + Oxaloacetate	
		in an average adult man is about	
	00 gm	B. 500 gm	
C. 1	кд	D. 10 kg	
*** *** *** ***			
À	organist of all amino amostic		
All	swer the following questic	ons (3x10=30 Marks)	
1. V	Vhat's meant by primary stri	eture of protein?	
J	that a meant by primary sere	icture of protess:	
2- I	mportance of cholesterol		
	i .		•
3- J	Define trace elements		
			· · · · · · · · · · · · · · · · · · ·
4- (	Classification of carbohydrate		· · · · · · · · · · · · · · · · · · ·
4- (	MITOLOGY		· · · · · · · · · · · · · · · · · · ·
4- (	MITOLOGY		· · · · · · · · · · · · · · · · · · ·
4- (	MITOLOGY		
	MITOLOGY	28	
	Classification of carbohydrate	28	
	Classification of carbohydrate	28	
	Classification of carbohydrate	28	<i>,</i> ,,,
	Classification of carbohydrate	28	<i>1</i>

6- Location, Structure and function	ms of Glyc	ogen.		
7- Importance of vitamin A				
8- Types of enzyme inhibitors				
9- Importance of calcium				
10- What is the importance of lac				

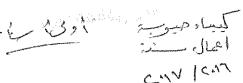
Good luck

Term: Midyear Exam Marks: 10 marks Time Allowed: 60 Minutes

a) 3

A) Glucose

C) mannose



1- Hydrolysis of fats by alkalis into fatty acids and glycerol is called:

Kafr Elsheikh University Faculty of Dentistry

First year

d) 2

A) Hydrogena	ition B) Saponific	cation C)	Rancidity	D) Coagulation
2- Which enzy	yme is involved in lip	oid digestion?		
A) Amylase	B) Lipase	C) Elas	tase	D) Lactase
3- The follow	ing are plasma lipop	rotein except ?		
A) VLDL	B) LDL C	)VHDL D)	)HDL E	E) Chylomicrons
4- The pH of	acids range from:			
a) 0-3	b) 0-7	c) 7-1	.2	d) 7-14
5- An essenti	al amino acid in man	is:		
A) Proline	B) Tyrosine	C) Serine		D) Methionine
6- Hexoses c	ontain how many car	bons ?		
a) 7	b) 6	e	) 5	d) 4
7- The hormo	one secreted from the p	oancreas after mea	ls is :	
a) insulin	b) glucagon	e) thyroxin	d) p	rolactin
8- The alcoho	l in triglycerides conta	ins how many (oh	) group:	

A) Liver	B) Intestine	C) Blood

B) galactose

D) fructose

b) 5

9- Galactitol is produced by reduction of:

10- HDL are synthesized in:

-		1	2	3	4	ס ו	U	/	8	× 2	10	i
	A								***************************************			
	В											
	C				ļ						<u> </u>	-
	l n			1		1	1	-	1	<b>!</b>	<u></u>	j

c) 6

Define
1- Isoleetectric point
2- Amylopectin
3- Rancidity
4- Ph
5- Importance of lactose
t.
•

•

العرف ١١٨

Term: Final exam
Time Allowed: 3 hours

Total Assessment Marks: 60 marks

المريا راحبوب

Kafr Elsheikh University Faculty of Dentistry

دوريونواه

## 1- Define. (5x2=10)

Vitamer, mucosal block, gluconeogenesis, isoenzymes, fatty acid 18:7,9,11.

## 2- Give short account on: (9x5=45)

- -Factors affecting iron absorption
- -Competitive inhibitors
- -Importance of vitamin A and its deficiency
- -Importance of cholesterol
- -Committed step of urea cycle and mention sources of free ammonia
- -Calculate the energy produced from oxidation of one molecule of palmetoyl coA (16c)
- -Calculate the energy produced from complete oxidation of one molecule of glucose.
- -Chemical properties of amino acids
- -Isotonic saline

# 3- Compare between Functional and non-functional plasma enzymes (5 marks)

Good luck @

سوف يعقد الامتحان الشفوي غدا الاحد 12/6 الساعة التاسعة و النصف صباحا.

Term: Final Exam Marks: 80 marks Time Allowed: 3 Hours

ا الماء دور سيتمبر ٢٠٠٥ - ١٠٠٠

Kafr Elsheikh University Faculty of Dentistry

First year

1- Give a short account on each of the following:

(8x5=40 MARKS)

Classification of carbohydrates

Naming of the enzymes

Nonfunctional plasma enzymes

Rancidity

Amphoteric properties of amino acids

2ry structure of proteins

Factors affecting blood calcium level

Causes of deficiency of vitamin K

- 2- Calculate the energy produced from oxidation of one molecule of palmitic acid (16c) (10 marks)
- 3- Compare between functional and non-functional plasma enzymes (10 marks)

سوف يتم عقد امتحان العملي و الشفهي غدا في تمام الساعة التاسعة و النصف صباحاً.

Good luck ©

Term: Final Exam Marks: 60 marks

Time Allowed: 2 hours

CIV Legy

Kafr Elsheikh University Faculty of Dentistry

First year

# 1- Define the following:

( 2x10=20 marks)

Essential amino acids, primary structure of proteins, allosteric enzymes, trace elements, mucosal block, buffer, invert sugar, gluconeogenesis, rancidity, neutral fat

# 2- Give a short account on: (2.5x10= 25 marks)

- a- Properties of carboxylic group in carbohydrates
- b- Body fats
- c-Biochemical derivatives of cholesterol
- d- Energetic of beta oxidation for palmitic acid.
- e- Factors affecting calcium absorption
- f- Functions of copper
- g- Mitochondrial step of urea cycle
- h- Primary structure of collagen
- i- Competitive inhibitors
- j- Chemical properties of amino acids

# 3- Compare between (3x5=15 marks)

- 1- Muscle and liver glycogen
- 2- HDL and LDL
- 3- Functional and non functional plasma enzymes

Good luck ©

سيتم عقد المتحان الشفهي غدا في التاسعة و نصف صباحا ان شاء الله

Term: Final exam
Time Allowed: 3 hours

Total Assessment Marks: 60 marks

الفرف المركبوس

Kafr Elsheikh University Faculty of Dentistry

1- Define. (5x2=10)

Vitamer, mucosal block, gluconeogenesis, isoenzymes, fatty acid 18:7,9,11.

#### 2- Give short account on: (9x5=45)

- -Factors affecting iron absorption
- -Competitive inhibitors
- -Importance of vitamin A and its deficiency
- -Importance of cholesterol
- -Committed step of urea cycle and mention sources of free ammonia
- -Calculate the energy produced from oxidation of one molecule of palmetoyl coA (16c)
- -Calculate the energy produced from complete oxidation of one molecule of glucose.
- -Chemical properties of amino acids
- -Isotonic saline

# 3- Compare between Functional and non-functional plasma enzymes (5 marks)

Good luck @

سوف يعقد الامتحان الشفوي غدا الاحد 12/6 الساعة التاسعة و النصف صباحا.

Term: Final Exam Marks: 60 marks

Time Allowed: 2 hours

Kafr Elsheikh University Faculty of Dentistry

First vear

# 1- Define the following:

Essential amino acids, primary structure of proteins, allosteric enzymes, trace elements, mucosal block, buffer, invert sugar, gluconeogenesis, rancidity, neutral fat

# 2- Give a short account on: (2.5x10= 25 marks)

- a- Properties of carboxylic group in carbohydrates
- b- Body fats
- c- Biochemical derivatives of cholesterol
- d- Energetic of beta oxidation for palmitic acid.
- e- Factors affecting calcium absorption
- f- Functions of copper
- g-Mitochondrial step of urea cycle
- h- Primary structure of collagen
- i- Competitive inhibitors
- j- Chemical properties of amino acids

# **3- Compare between** (3x5=15 marks)

- 1- Muscle and liver glycogen
- 2- HDL and LDL
- 3- Functional and non functional plasma enzymes

Good luck ©

Term: Final exam Time Allowed: 3 hours Total Assessment Marks: 60 marks

inarks

Sie chemist

C. 16 / C. 12 F. J.

Kafr Elsheikh University Faculty of Dentistry First year

1- Define the following:  $(2 \times 5)$ 

Glycogenolysis - vitamers- functional plasma enzymes- isotonic saline- isoenzymes.

2- Give short account on the following: (5 X 10)

Importence of phospholipids.

Enzyme nomeclature.

Drevatives of cholesterol.

Primary structure of proteins.

Factors affecting blood Calcium level.

Classification of polysaccharides.

Characters of the amino group of amino acids

Functions of zinc.

Deffeciency of vit C.

Functions of vit E.

Good luck:)

Term: Midyear Exam Marks: 10 marks Time Allowed: 30 Minutes

c) both (a) and (b).

Kafr Elsheikh University Faculty of Dentistry

First year

EL B

	511 - C16	العرف مل ورك	MODE
1- Carnitine is required for (A) Triglycerides out oflive (B) Triglycerides into mitod (C) Long chain fatty acids	er chondria	DI Came	es L
2- The number of molect CoA in TCA cycle is	iles of ATP produc	eed by the total oxid	lation of acetyl
(A) 6 (B) 8	(C) 10	(D) 12	
3- High biological value pa have high caloric value. c) are not hydrolyzed by di		b) contain all the es	
4 Glucose on oxidation (A) Glycoside (C) Gluconic acid	does not give	(B) Glucosaccharic (D) Glucuronic aci	
5- Storage form of carbo a) starch. b) gly		ilian cells is dextrin.	d) cellulose
6- Amino acids of protein a) have the amino group at b) have the amino group a c) neither (a) nor (b).	nd carboxyl group a	ttached to the same o	carbon atom. bon.
7- Neutral fats are esters a) glycerol. c) both (a) and (b).	b) high	molecular wight moner (a) nor (b).	onohydritic alcohols
8- Dietary fats after abso (A) HDL (B) V		he circulation as () LDL	(D) Chylomicron
9- Which of the following a) storing of excess fuel in b) conversion of glucose to oxidation of fatty acids d) synthesis of tissue protests.	n adipose tissue. o glycogen. for energy producti		
10- The key regulatory 6	enzyme of fatty acid	d synthesis is:	
a) Acyl co A synthetase	b	) Acetyl co A carbo	xylase
c) Keto acyl synthase	d	) Thioesterase	
11- A saturated fatty ac	id		
a) can't be hydrogenated.		b) can't be dissolve	ed.

d) neither (a) nor (b).

17_	Same	onifica	ation	:-	
12-	Dap		auvn	13	·

- (A) Hydrolysis of fats by alkali
- (B) Hydrolysis of glycerol byliposes
- (C) Esterification
- (D) Reduction

13-	The	sugar	found	in	milk	is

(A) Galactose

(B) Glucose

(C) Fructose

(D) Lactose

# 14- During starvation, ketone bodies are used as a fuel by :

(A) Erythrocytes

(B) Brain

(C) Liver

(D) All of these

# 15- A fatty acid with 14 carbon atoms will undergo how many cycles of beta oxidation

- a) 7
- b) 4
- c) 6

d) 5

# 16- How many amino acids share in the biosynthesis of all known proteins?

- a) 10.
- b) 30.
- c) 20.

d) 50.

# 17- A lipoprotein inversely related to the incidence of coronary artherosclerosis

- (A) VLDL
- (B) IDL
- (C) LDL
- (D) HDL

# 18 Reducing sugars include all except

- a) glucose, fructose and galactose.
- b) glucose, maltose and mannose.
- c) glucose, galactose and sucrose.

## 19- Invert sugar is

- (A) Lactose
- (C) Fructose

- (B) Mannose
- (D) Hydrolytic product of sucrose

#### 20. Starch is a

- (A) Polysaccharide
- (C) Disaccharide

- (B) Monosaccharide
- (D) None of these

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A																				
В																				
С									-											
D																				

Term: Midyear Exam Marks: 10 marks Time Allowed: 30 Minutes

li -	
Name	
Name	

Seat no:

Model A

Kafr Elsheikh University Faculty of Dentistry

First year

1/2 - 1/2/2 -

1-	A	decrease	of	pH	from	2	to	1	means
----	---	----------	----	----	------	---	----	---	-------

- a) decrease of hydrogen ion concentration than the original value.
- b) increase of hydrogen ion concentration than the original value.
- c) no change in hydrogen ion concentration.

#### 2- Amino acids of proteins

- a) have the amino group and carboxyl group attached to the same carbon atom.
- b) have the amino group attached to the alpha, beta or gamma carbon.
- c) neither (a) nor (b).

## 3-How many amino acids share in the biosynthesis of all known proteins?

- a) 10.
- b) 30.
- c) 20.

d) 50.

## 4-At isoelectric point, an amino acid carries

- a) one or more positive charges.
- b) one or more negative charges.
- c) equal positive and negative charges.
- d) no electric charges

## 5- Essential amino acids do not include

- a) valine, leucine, and isoleucine.
- b) threonine, methionine, and tryptophan.
- c) histidine, lysine, and arginine.
- d) tyrosine, cysteine, and glutamine.

### 6- High biological value proteins are those proteins that

a) have high caloric value.

- b) contain all the essential amino acids.
- c) are not hydrolyzed by digestive enzymes.
- d) are obtained usually from plants.

#### 7- Invert sugar is

a) mannose and glucose.

b) found in blood.

c) reducing.

d) produced by liver cells.

#### 8- Storage form of carbohydrate in mammalian cells is

- a) starch.
- b) glycogen
- c) dextrin.
- d) cellulose

#### 9- Reducing sugars include all except

- a) glucose, fructose and galactose.
- b) glucose, maltose and mannose.
- c) glucose, galactose and sucrose.

#### 10-Scleroproteins

- a) are fibrous proteins not soluble in most protein solvents and not digested in the intestine.
- b) include keratin, collagen and elastin which have structural functions.
- c) are present only in animal tissue not in plants.
- d) all the above.

#### 11- Neutral fats are esters of fatty acids with

a) glycerol.

b) high molecular wight monohydritic alcohols

c) both (a) and (b).

d) neither (a) nor (b).

<ul><li>12- A saturated fatty a</li><li>a) can't be hydrogenated</li><li>c) both (a) and (b).</li></ul>							olved. or (b)						
<ul><li>13- Phospholipids act :</li><li>a) a structural compone</li><li>c) a store of saturated fa</li></ul>	nt of tissue	es.			store		nerg ve.	y for	the t	ody.			
a) is associated with the b) has no role apart from c) both (a) and (b).	-			ormo	nes.	er (a)	nor (	(b).					
a) storing of excess fuel b) conversion of glucose c) oxidation of fatty acid d) synthesis of tissue pr	in adipose e to glycog ds for ener	e tissue. gen.			ic pa	thwa	ay?						(
16- A fatty acid with 1 oxidation	4 carbon	atoms w	'ill uı	nder	go ho	w m	any o	eycle	s of l	oeta			
a) 7 b)	4	C	6 (2				(	d) 5					
17- The key regulatory	enzyme (	of fatty a	icid s	ynth	esis i	is-							
a) Acyl co A synthetas	se		b)	Acet	yl co	A ca	rbox	ylase	;				
c) Keto acyl synthase			d)	Thio	ester	ase							
18- The major metabo erythrocytes and by m	-	_					circu	msta	inces	by			
a) Oxaloacetate	b) A	lanine		(	e) Gly	cero	l		d) L	actat	е		
19- When glucose is coequivalent of	_ATPs ar	e derive	d. W	hen	gluc					xidiz	zed		
a) 7; 20	b) 2; 38	;		c) 2	; 12			(	e) 2;	25			
20- During late starva	tion, the n	najor so	urce	of bl	ood g	gluco	se is	-					
a) Hepatic Glycogenol	ysis			b	) Glu	cone	ogen	esis					
c) Muscle Glycogenoly	ysis			d)	Diet	ary g	gluco	se fro	m in	testi	ne		
1 2 3 4	5 6 7	7 8 9	10	11	12	13	14	15	16	17	18	19	20

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A																-11.				
В														<u></u>						
C																				
D																				

Term: Midyear Exam Marks: 10 marks Time Allowed: 30 Minutes Name:

Seat no:

Model B

Kafr Elsheikh University Faculty of Dentistry

First year

1-	Storage form	of carboh	ydrate in	mammalian	cells is
----	--------------	-----------	-----------	-----------	----------

- a) starch.
- b) glycogen
- c) dextrin.

d) cellulose

## 2- A saturated fatty acid

- a) can't be hydrogenated.
- c) both (a) and (b).

- b) can't be dissolved.
- d) neither (a) nor (b).

## 3- Which of the following is considered a catabolic pathway?

- a) storing of excess fuel in adipose tissue.
- b) conversion of glucose to glycogen.
- c) oxidation of fatty acids for energy production.
- d) synthesis of tissue proteins.

## 4- Invert sugar is

a) mannose and glucose.

b) found in blood.

c) reducing.

d) produced by liver cells.

#### 5- Scleroproteins

- a) are fibrous proteins not soluble in most protein solvents and not digested in the
- b) include keratin, collagen and elastin which have structural functions.
- c) are present only in animal tissue not in plants.
- d) all the above.

## 6- High biological value proteins are those proteins that

a) have high caloric value.

- b) contain all the essential amino acids.
- c) are not hydrolyzed by digestive enzymes.
- d) are obtained usually from plants.

#### 7-At isoelectric point, an amino acid carries

- a) one or more positive charges.
- b) one or more negative charges.
- c) equal positive and negative charges.
- d) no electric charges

#### 8- A decrease of pH from 2 to 1 means

- a) decrease of hydrogen ion concentration than the original value.
- b) increase of hydrogen ion concentration than the original value.
- c) no change in hydrogen ion concentration.

#### 9- Reducing sugars include all except

- a) glucose, fructose and galactose.
- b) glucose, maltose and mannose.
- c) glucose, galactose and sucrose.

### 10- Essential amino acids do not include

- a) valine, leucine, and isoleucine.
- b) threonine, methionine, and tryptophan.
- c) histidine, lysine, and arginine.
- d) tyrosine, cysteine, and glutamine.

11- Neutral fats are esters of fatty	acids	with										
a) glycerol.		igh m	oleci	ılar ·	wigh	t moi	ohy	dritic	alco	hols		
c) both (a) and (b).		either					-					
12- Amino acids of proteins												
a) have the amino group and carbox								ı atoı	n.			
b) have the amino group attached to	the al	pha, l	beta	or ga	ımıma	a cart	oon.					
c) neither (a) nor (b).												
13- Phospholipids act as												
a) a structural component of tissues.			•			energ	y for	the l	body.			
c) a store of saturated fatty acids.			d) a	ll the	e abo	ve.						
14- Cholesterol												
a) is associated with the developmen	it of at	heroso	clero	sis.								
b) has no role apart from synthesizing												
c) both (a) and (b).	•		d) n	eith	er (a)	nor	(b).					
			_									(
15-How many amino acids share i	n the l	-		is of	all l	snow	_					(
a) 10. b) 30. 16- A fatty acid with 14 carbon at	tome st	c) 20		o bo	. Y.X.F. 1974	ony.		.) 50.				
oxidation	CHIES W	'III UII	uei g	,ο πι	)	апу	cycle	8 01	Deta			
a) 7 b) 4	(	c) 6					d) 5	)				
17- The key regulatory enzyme of	fatty a	icid sy	ynth	esis	is-							
a) Acyl co A synthetase		b) A	Acety	yl co	A ca	arbox	ylase	<b>:</b>				
c) Keto acyl synthase		d) [	Thioe	ester	ase							
18- The major metabolic product	_					circu	ımst	ance	s by			
erythrocytes and by muscle cells d	uring	inten	se ex	erci	se is							
a) Oxaloacetate b) Alar	nine		c	) Gly	ycero	ol		d) L	actat	е		
19- During late starvation, the ma	jor sou	arce o	of blo	od g	gluco	se is	-					(
a) Hepatic Glycogenolysis		•	b)	Glu	cone	ogen	esis					
c) Muscle Glycogenolysis			d)	Diet	ary g	gluco	se fro	om ir	itesti	ne		
20- When glucose is converted to		-				_				- a d		
equivalent of ATPs are to CO <sub>2</sub> , the equivalent of				_	ose 1	s con	ipiei	eiy o	XIOIZ	zea		
								١.٥	۰			
a) 7; 20 b) 2; 38			c) 2;	. 12				e) 2;	25			
1 2 3 4 5 6 7	8 9	10	11	12	13	14	15	16	17	18	19	20
1 2 3 4 5 6 7	8 9	10	7 7	17	1.3	1,4	1.7	10.		10	1 1 2	20

B C D

Name: Faculty of Dentistry Term: Midvear Exam Marks: 10 marks Seat no: Time Allowed: 30 Minutes First year Model C 1- Cholesterol a) is associated with the development of atherosclerosis. b) has no role apart from synthesizing steroid hormones. d) neither (a) nor (b). c) both (a) and (b). 2- A saturated fatty acid b) can't be dissolved. a) can't be hydrogenated. d) neither (a) nor (b). c) both (a) and (b). 3- A fatty acid with 14 carbon atoms will undergo how many cycles of beta oxidation d) 5 c) 6 b) 4 a) 7 4- Invert sugar is b) found in blood. a) mannose and glucose. d) produced by liver cells. c) reducing. 5- Scleroproteins a) are fibrous proteins not soluble in most protein solvents and not digested in the intestine. b) include keratin, collagen and elastin which have structural functions. c) are present only in animal tissue not in plants. d) all the above. 6- High biological value proteins are those proteins that b) contain all the essential amino acids. a) have high caloric value. d) are obtained usually from plants. c) are not hydrolyzed by digestive enzymes. 7-At isoelectric point, an amino acid carries b) one or more negative charges. a) one or more positive charges. d) no electric charges c) equal positive and negative charges. 8- When glucose is converted to lactate by anaerobic glycolysis, the equivalent of ATPs are derived. When glucose is completely oxidized to CO2, the equivalent of \_\_\_\_\_ ATPs are derived. e) 2; 25 c) 2; 12 b) 2; 38 a) 7; 20 9- Reducing sugars include all except b) glucose, maltose and mannose. a) glucose, fructose and galactose. c) glucose, galactose and sucrose. 10- Essential amino acids do not include a) valine, leucine, and isoleucine. b) threonine, methionine, and tryptophan. c) histidine, lysine, and arginine. d) tyrosine, cysteine, and glutamine.

Kafr Elsheikh University

11- Storage for	n of	car	boh	ydr	ate	in 1	naı	nma	lian (	ells	is							
a) starch.		b) g	lyco	ger	l			c) d	lextri	n.			į	d) ce	llulos	se	,	
12- Amino acid a) have the amin b) have the amin c) neither (a) no	o gro	oup	and	car				••						aton	a.			
13- Phospholip a) a structural cc c) a store of satu	mpo	nen	t of						,	store			y for	the b	ody.			
14- Neutral fats are esters of fatty acids with  a) glycerol. b) high molecular wight monohydritic alcohols c) both (a) and (b). d) neither (a) nor (b).																		
15-How many a a) 10.	min	o ac		sha	re i	n tl	ie t	oiosyı c) 2		sis of	all k	now		o <b>tein</b> ) 50.	s?			
a) storing of exc b) conversion of c) oxidation of f d) synthesis of t	ess fi gluc atty a ssue	uel i ose acid pro	in acto g s fo tein	dipo glyc r en s.	ose t oge erg	tissu n. y pr	ie. odu	etion	l <b>.</b>									
17- During late				tne	ma	ıjor	SOL	irce										
a) Hepatic Glyo	ogen	oly	sis						,	Glu		_						
c) Muscle Glyc	•	-							,				se fro			ıe		
18- The major erythrocytes an												eircu	msta	inces	by			
a) Oxaloacetate				b)	Ala	min	е		(	) Gly	ycero	1		d) L	actate	е		
19- The key rea	gulat	ory	enz	zym	e of	f fat	ty a	acid s	synth	esis	is-							
a) Acyl co A s	ynthe	etase	=					b)	Acet	yl co	A ca	ırbox	ylase	<b>;</b>				
c) Keto acyl sy	ntha	se						d)	Thic	ester	ase							
<ul><li>20- A decrease</li><li>a) decrease of h</li><li>b) increase of h</li><li>c) no change in</li></ul>	ydrog ydrog	gen gen	ion ion	con	cen	trat trat	ion ion	than	the o	rigin rigin	al va al val	lue. ue.						
1 1	2 3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A																		
B				-														