### بسم الله الرحمن الرحيم

# BIOCHEMISTRY (Final –MERCY batch)

إعداد:



### 1: The only amino acid that give yellow color when it react with ninhydrin is:

- a) lysin
- b) proline
- c) tryptophan
- d) arginine

**ANSWER: B** 

# 2: At bradford assay the differences between the two forms of the dye is greatest at :

- a) 465
- b)610
- c) 595

**ANSWER: C** 

### 3: The only type of chromatography that use a helium as mobile phase is:

- a) liquid chromatography
- b) gas chromatography

**ANSWER: B** 

### 4\*: One of the following is incorrect:

- a ) specific gravity of cow milk is less than in human milk
- b) human milk get white color and cow milk get yellow color
- c) cow milk lipids are equal to human milk lipids
- d ) acidity of cow milk is more than it in human milk

e ) هو الجواب الصح انا مش متذكره اللي متذكره يكتب جزينم خيرا خيرا

#### 5- The Ph of human milk:

- a-6.6-6.8
- b-7
- c-5.9
- d-5.5

#### **ANSWER: A**

### 6- The mansuf is a national food in Jordan. to be a good absorption of iron we favorable to drink :

- a) milk
- b) water
- c) lemon juice
- d) tea
- e) coffee

**ANSWER:** C

### 7- All of the following are correct except:

a ) aqueous humor fills the posterior chamber

**ANSWER:** A

### 8\*- All of the following are correct except:

- a ) tears are produced by lachrymal gland
- b ) when tears flow with a slow rate , it will be hypertonic

c) when tears flow is copies, the fluid is isotonic

باقي الخيارات بما فيها الجواب الصحيح ناسيه ... كنت شغال عالاستثناء بس المهم السؤال بيتعلق بالدموع على ما اذكر

### 9: The total content of iron in an adult body is:

- a) 9-11 mg
- b) 10-12 mg
- c) 3-5 g
- d) 10-12 g
- c) 30-40 g

### **ANSWER: C**

### 10- One of the following are macro mineral:

- a) molybdenum
- b) iron
- c) sulfur
- d) cobalt
- e) manganese

### **ANSWER:** C

### 11- One of the following is wrong about calcium:

- a ) the milk products is good sources
- b) the absorption of calcium occur in duodenum and jejunum
- c ) calcitonin play a role in increase of calcium

d) most of body calcium storage in bone and teeth e) calcium is the most abundant mineral in animal tissues **ANSWER:**? 12- The PTH promotes Ca absorption by: a) induce the synthesis of Ca binding protein **ANSWER:** A 13- One of the following is correctly matched: a) fructose -----> malt sugar b) lactose ---- > table sugar c) glucose -----> blood sugar d) sucrose ---- > milk sugar ANSWER: C 14- The storage saccharide is most abundant in animal cells: a) starch b) galactose c) cellulose d) chitin **ANSWER:** C 15 : One of the following is incorrect stereoisomer : a) galactose -----> glucose b) glucose -----> fructose

c) glucose ----> mannose

- d ) alpha ribose -----> beta ribos
- e ) L- glucose -----> D glucose

### **ANSWER:**?

### 16- The human milk secretion stimulates by:

- a) oxytocin
- b) prolactin
- c) estrogen
- d) testosterone

### **ANSWER:** B

### 17- The similarity myoglobin and hemoglobin is:

- a ) no obvious relation between them
- b ) similar in both primary structure and tertiary structure
- c) different in primary structure and tertiary structure
- d) similar in primary structure but different in tertiary structure
- e ) similar in tertiary structure but different in primary structure

### **ANSWER:** B

### 18- The peptide bond occurs when:

- a ) the hydroxyl group of carboxylic acid of one molecule react with hydrogen atom in the amine group of other molecule
- b ) the hydrogen atom of carboxylic acid of one molecule react with hydroxyl group in the amine group of other molecule
- c ) the hydrogen atom of carboxylic acid of one molecule react with hydrogen atom in the amine group of other molecule

d) the hydroxyl group of carboxylic acid of one molecule react with hydroxyl group in the amine group of other molecule

### **ANSWER: A**

### 19- If you know:

I: not all proteins has quaternary structure

II: the beta - sheet secondary structure may be parallel or anti parallel

III: disulfide bond make tertiary structure

IV : the hydrogen bond between backbone atom make secondary structure

#### the correct answer is:

- a ) I only
- b) II and I
- c) III and IV
- d) I and II and III
- e) I and II and III and IV

### **ANSWER:** ?

20- Cough , fever and headache , a tinge of yellow in whites of eyes . all of these are symptoms of :

- a ) Alzheimer disease
- b) anemia
- c) mad cow disease
- d) collagenopathy

### **ANSWER:** B

### 21- Must be supplied through diet:

- a) serine
- b) proline '
- c) cysteine
- d) alanine
- e) phenylalanine

### **ANSWER: E**

### 22- Nonpolar, aromatic R group, have indole side chain:

- a) phenylalanine
- b) tryptophan
- c) proline
- d) alanine
- e) histidine

### **ANSWER:** B

### 23- The best thing that describe the specificity of enzymes is :

- a) km
- b) km / k1 + k2
- c) k-1+k-2/km

### **ANSWER:**?

#### 24- The induced fit model when:

a) the substrate bind to the enzyme

- b) the substrate be at proximity to enzyme
- c) the change occur in the active site after the binding of substrate
- d ) the change in the active site before binding of the substrate

ANSWER: ?

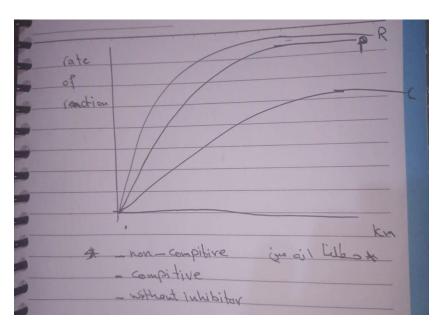
Q25:

( P,D,H ) في سؤال كان معطي رسمة فيها ثلاث منحنيات

السؤال متعلق بالمثبطات ، حاط المنحنيات في مستوى بياني وحاط ثلاث أسماء لمثبطات

Non competitive, uncompetitive, competitive

((فالمطلوب انه الطالب يحفظ رسمات المثبطات كل مثبط كيف الرسمة تاعته وشو بيغير وشو بيثبت)) وهاي الرسمة بالصورة ....



# 26- The inhibitor that react with the ES complex but not directly to enzyme:

a-uncompetitive

**ANSWER:** A

### 27- Which one of the following describe the action of aspirin?

- a) adding a sulphate to active site
- b) blocking the active site
- c) applying a conformational change to the enzyme

**ANSWER: C** 

### 28- The lipoprotein that contain the lowest phospholipids:

a-Chylomicron

b-LDL

c-HDL

ANSWER: ?

# 29- Arrange the chylomicron , VLDL , IDL , LDL from the smallest size to the largest :

a-HDL, LDL, VLDL, chylomicron

b-VLDL, IDL, LDL, chylomicrons

**ANSWER:** A

### 30- The apoprotein using as enzyme cofactor:

a- apo c-ll

b- apo B

**ANSWER:** A

### 31- The desired value in most adult for HDL is:

a- 40-60

**ANSWER:** A

### 32-One of the following is true about sterols:

 $\underline{ANSWER:}$  it is composed of 17 carbon atom with two methyl group C18 , C19

### 33- Esterified happens:

ANSWER: carboxylic acid with alcohol and remove water

#### 34-Estrified in cholesterol:

ANSWER: fatty acid esterified with C-3 OH of cholesterol

### 35- Example of primary bile acid:

- a- chenodeoxycholic acid
- b- lithocholic acid
- c- deoxycholic acid

**ANSWER:**?

### 36-Example of corticosteroids produced by adrenal cortex are:

**ANSWER:** cortisol

### 37- Hormone stimulation milk secretion:

a- prolactin

b-oxytocin

**ANSWER: ?** 

### 38- Hormone important in menstrual cycle:

a-progesterone

b- estrogen

ANSWER: B

### 39- All of the following is components of ganglioside except:

a-glycerol

b-sphingosine
c-carbohydrates
ANSWER: ?
40- Fat in animal is:
a- saturated only
b-saturated and polyunsaturated with short chain fatty acid
c-polyunsaturated only
ANSWER: ?
41- Fatty acid with 20 carbon atom and 3 double bond and the first double bond is on carbon number 8 is:
a- omega 6
b- omega 3
c- omega 9
ANSWER: ?
42- All of the following is examples of macro minerals except:
a- molybdenum
b- sodium
c- chloride
d- phosphorus
ANSWER: ?
43- All of the following is true about PTH increase absorption of Ca except:
-in GIT

-secre	tion	cal	lcitriol
<b>300</b>		CUI	

### **ANSWER:**?

# 44- Which one of the following is amino acid should bound in ninhydrin reaction:

a- acidic amino acid

b- natural amino acid

c-basic amino acid

d-essential amino acid

### **ANSWER: ?**

### 45- Tripeptides contain:

a-3 amino acid and 2 peptide bond

b- 3 amino acids and 3 peptide bond

c- 3 amino acid and 1 peptide bond

### **ANSWER: ?**

### 46- All of the following is example about interstitial fluid except:

a-serum

b-csf

c-synovial

### **ANSWER: ?**

### 47\*- All of the following is true about sweat except:

a-pH 4.7-9.7

b-controlled by ANS

c-increase in sweat produced daily lead to water and electrolytic balance

### 48- All of the following is true about aqueous humor except:

a-aqueous humor is secreted by posterior chamber of eye by retina b-blockade in the flow of aqueous humor causes glaucoma c- vitreous humor secreted by posterior chamber of eye

### ANSWER: ?

# 49- One of the following is the only constituent in milk with specific gravity lower than 1000:

**ANSWER:** lipid

#### 50\*- About B sheet what is the true:

I beta sheet consisted of one or more polypeptide

Il beta sheet is secondary structure

III beta sheet is parallel or antiparallel

IV the polypeptide chain is linking in hydrogen bond

a-II, III and IV

b-I,II,III and IV

### 51\*- All the following is true about trans fatty acid except:

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### 52- The major component of synovial fluid, which works as shock absorber?

- a) hyaluronic acid
- b) chondroitin sulfate

- c) dermatan
- d) keratan
- e) heparin

### ANSWER: A

### 53- Which one of the following describe the action of aspirin?

- a) adding a sulphate to active site
- b) blocking the active site
- c) applying a conformational change to the enzyme

### **ANSWER: C**

### 54- Which of the following is true about allosteric inhibitions:

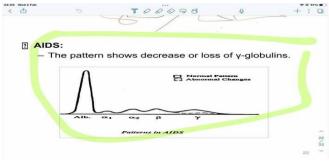
ANSWER: Usually in quaternary structure

( صورة المركب ومطلوب صورته) ?55- This is

### **ANSWER:**

-tetrahydrofolate (FH4)

### (الصورة ومطلوب اسم المرض) 56- The disease is:



-ANSWER: AIDS