



Biology Final 2012/2013

1) what is the reason of cohesiveness water ?

- a) Hydrogen bond b) ionic bond

2) the bonds in water molecule are?

- a) Ionic bonds b) covalent bonds c) hydrogen bonds

3) oxidation of 1 fadh₂ will give us ____ATP?

- a) 1.5 b) 2.5 c) 3

4) many times must Calvin cycle be repeated to give 1 G3P?

- a) 1 b) 2 c) 3

5) the reason of the difference in amino groups?

- a) R group connect to c
b) R group connect to α c
c) side chains

6) match

franklin : model of DNA

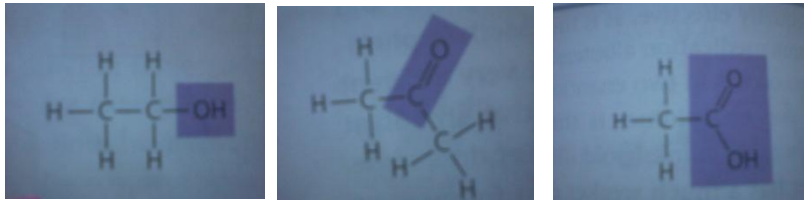
chargaff : said that the amount of A=t and C=G

7) how many ATP are made by substrate level phosphorylation in glycolysis and cytruc acid cycle?

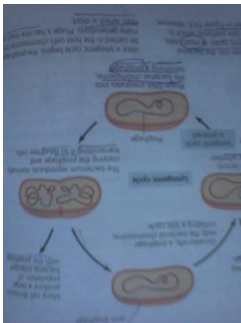
- a) 4 b) 6 c) 32

8) what is the molecule which has carbonyl group ?

9) what is the molecule which has carboxylic group?



11) According to this figure answar these Qs :



The name of this cycle ???

- a) lytic b) lysogenic

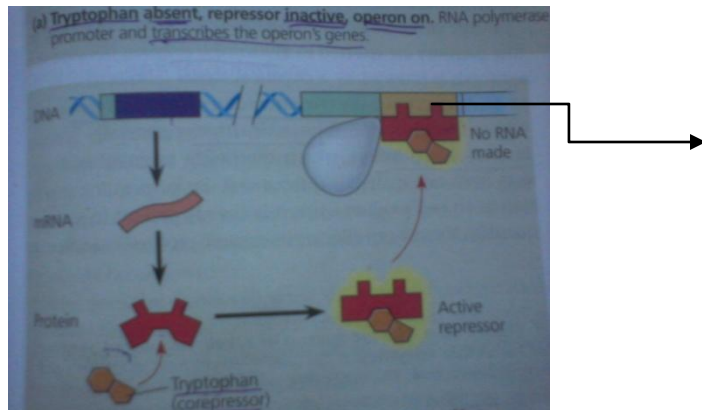
- the name of viruses that attend this is named as? (type of phages)

- a) temperate b) virulent

12) the space out of thylakoids when there are transport of e via ETC is?

- a)acidic compared with inside b) basic compared with inside

13) according to this figure



1) the name of the this "operator

2)- the activator of the repressor ?

a). tryptophan b) allolactose

14) chlorophyll 1 has a ?

Ch3 or iron or magnesium or hydrocarbon tail

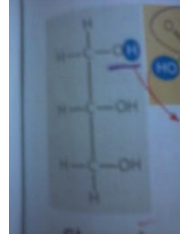
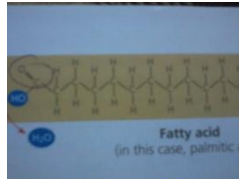
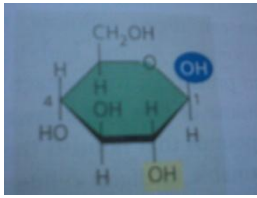
15) which of the following is not involved in synthesizing okazaki fragments of DNA ?

a) DNA ligase b) primase c) DNA pol III

16) of these is a property of H₂O?

loses and gains heat slowly

17)



- 1) the 2 molecules that are used for synthesizing fat?
- 2- the monomer of cellulose is?

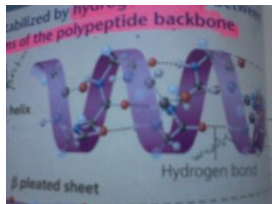
18) one of these is not correct about DNA?

spirilli twist

19) one of these is correct about saturated fatty acid?

Butter is one of them

20) the name of the structure



21) The reason of sickle cell disease in hemoglobin?

The mutant hemoglobin has a valine instead of glutamic acid

22) which of these are pyrimidines ?

C, U

23) what is the codon of the amino acid Methionine in mRNA?

24) one of these is common between plant and animal cell

?mitochondria

25) you have the pic of tRNA and you are asked :

1- about the name of it

2- it can bind to the ribosomes in : E, P, A, all of them?

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26) you have a picture of a reaction and you are asked to calculate E_a ?

27) picture (b) page (237), what is it?

28) in bacteria DNA, there isn't?

poly a tail and 5 cap

29) the meaning of splicing?

30) the initiation complex does not have?

snRNP

31) the enzyme which is responsible of binding tRNA to the suitable amino acid is?

An aminoacyl tRNA synthetase

32) what would happen if the nuclear lamina damage?

Effect to the cell shape

33) what is true about convert pyruvate to acetyl coA?

the fermentation

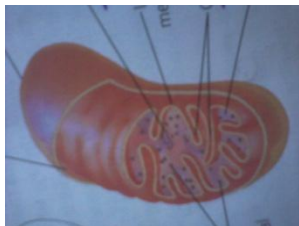
34) what is the function of reverse transcriptase?

using RNA stand as a complementary stand for synthesizing DNA molecule

what is the function of reverse transcriptase?

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35) according to this figure



1-the ETC pumps H to?

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inter membrane space

36) the dimers in the DNA strand that is caused by (UV) light :

thymine dimers

37) organic molecules ... ?

Coenzymes

38) noncompetetive inhibitor picture:

how this molecule affect enzyme activity ?

by altering enzyme shape

39) movement of organelles in the cell depends on

: motor proteins and microtubules

40) what is true about pyruvate oxidation ?

takes place in the matrix of mitochondria, produces CO₂

41) How do we get electrons for p680?

splitting H₂O

42) 1st step of glycolysis is enzymatically done by ?

kinase

43) The molecule which saves the solidifying of the membrane when the tempreture get low?

cholesterol

44) which one of these molecules could cross the membrane quickly?

small hydrophobic molevules

45) which one of these is mismatched?

Na⁺, K⁺ pump - passive transport

46) cell shrivel when it's in :

Hypertonic solution

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