

Test Name : BT101: Quiz 01

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Test Start Time	Marks Scored	Total Questions
2021-04-04 09:30:37	18.010000000000005 / 25.0	32
Attempted Questions	Correct Questions	Incorrect Questions
30	25	5
Skipped Questions	Pending Evaluation	
2	0	


Status of application for viewing evaluated answers

Not Applied

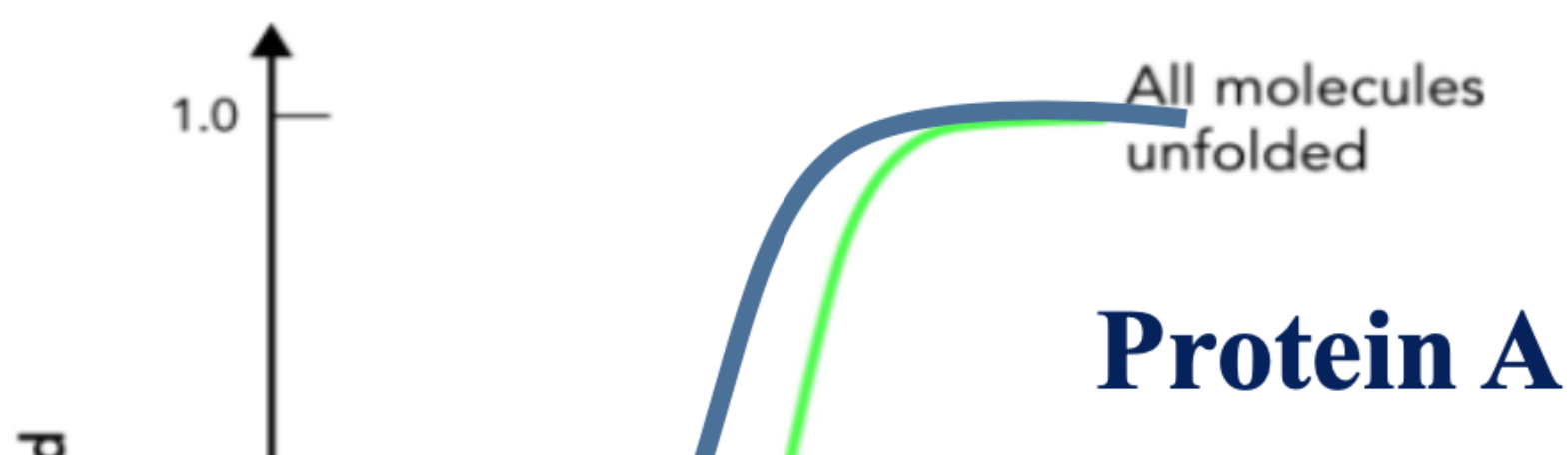
Actions

Apply for viewing evaluated answers

List of Sections

Section - 1					Marks per question : 0.75	Marks Scored : 17.01	Negative marks per question : 33%
Q No.	Q. Type	Status	Marks	Comment			
1	Multiple Choice - Single Answer		0.0	-	<div>Hide Answer</div>		
<div></div>							

See the plot below and choose the appropriate option.



2

Multiple
Choice -
Single
Answer

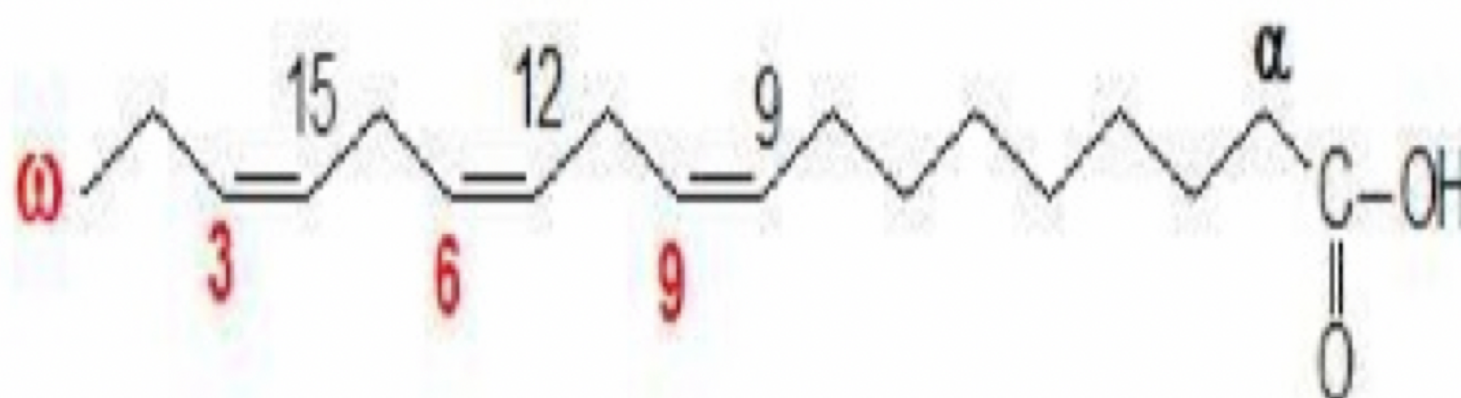


0.75

-

Hide Answer

Nomenclature of the following fatty acid



☐ 18:3 TransD^{3,6,9}

☐ 18:3 CisD^{3,6,9}

☐ 18:3 TransD^{9,12,15}

☒ 18:3 CisD^{9,12,15}

☐ Protein B is more stable than Protein A

3

Multiple
Choice -
Single
Answer

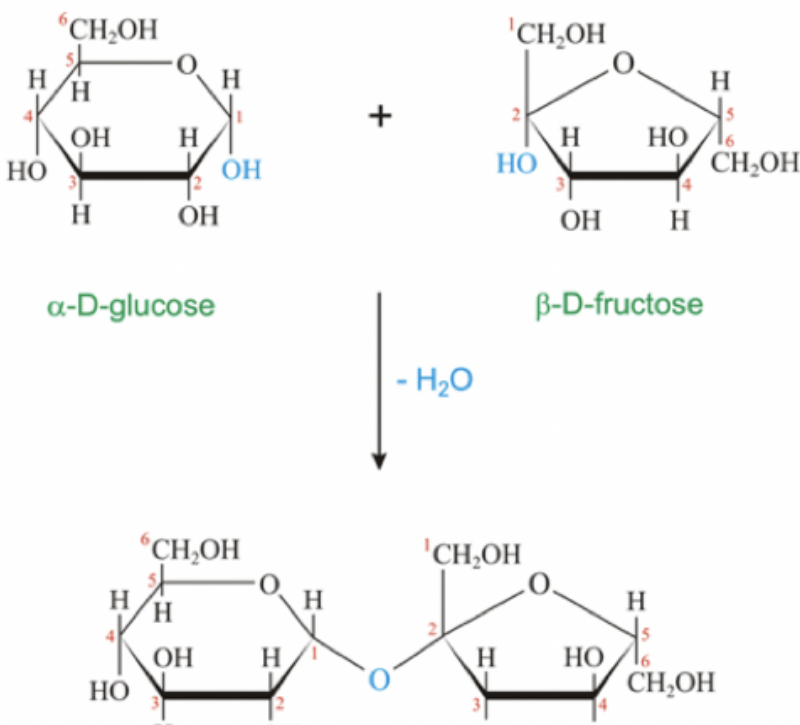


0.75

-

Hide Answer

See the following disaccharide and select the appropriate option



4

Multiple
Choice -
Single
Answer



0.75

-

Hide Answer

The ribosomes of prokaryotic cells

- ☒ exist free in the cytoplasm
- ☐ are found in nucleus
- ☐ can be seen with the light microscope
- ☐ are located along the endoplasmic reticulum

5

Multiple
Choice -
Single
Answer



0.75

-

Hide Answer

The cell maintains order by increasing disorder in the surrounding

- ☐ False
- ☒ True

6

Multiple
Choice -
Single
Answer



0.75

-

Hide Answer

Sucrose (SUGAR) consists of

- ☒ covalently linked glucose and fructose molecule
- ☐ Two covalently linked glucose molecules
- ☐ non-covalently linked (Hydrogen bonded) glucose and fructose molecule
- ☐ Two covalently linked fructose molecules

7

Multiple



0.75

-

Hide Answer

Choice -
Single
Answer

Blood sugar regulation in our body primarily involve two organs. Select the most appropriate pair:

☐ gallbladder, kidney

☐ liver, kidney

☐ pancreas, kidney

☒ liver, pancreas

8

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

Introns are present in

☐ Eubacteria and Archaea

☐ Eubacteria and Eukaryotes

☒ Eukaryotes and Archaea

☐ Eubacteria

9

Multiple
Choice -
Single
Answer

⚠

0.0

-

Hide Answer

Who proposed that the first life form could have come from pre-existing non-living organic molecules?

☒ Oparin and Haldane

☐ Stanley Miller

☐ Louis Pasteur

☐ Charles Darwin

10

Multiple
Choice -
Single
Answer

✗

-0.25

-

Hide Answer

Darwin explained the theory of evolution in his book

☒ On the origin of life

☐ On the evolution of species by means of natural selection

☐ On the origin of species

☐ On the evolution of life

11

0.75

Multiple Choice - Single Answer

✓

-

Hide Answer

The rough endoplasmic reticulum (RER) differs from the smooth endoplasmic reticulum (SER) in its association with

☐ Peroxisomes

☐ Lysosomes

☐ Centrosomes

☒ Ribosomes

12

Multiple Choice - Single Answer

✗

-0.25

-

Hide Answer

In Eukaryotes the ribosomes are synthesized in

☐ Mitochondria

☒ Golgi bodies

☐ Nucleolus

☐ Endoplasmic reticulum

13

Multiple Choice - Single Answer

✗

-0.25

-

Hide Answer

In prokaryotes the genetic material is

☐ Circular DNA without histones

☐ Linear DNA without histones

☒ Circular DNA with histones

☐ Linear DNA with histones

14

Multiple Choice - Single Answer

✓

0.75

-

Hide Answer

The region in prokaryotic cell where double stranded single circular DNA is present is called as

☐ Nucleus

☐ Nucleoplasm

☐ Pronucleus

☒ Nucleoid

15

Multiple

✗

-0.25

-

Hide Answer

Choice -
Single
Answer

Abiogenesis theory of origin supports

- ☐ origin of life from blue-green algae
- ☒ spontaneous generation
- ☐ organic evolution is due to chemical reactions
- ☐ origin of life is due to pre-existing organisms

16

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

Which of the following is true regarding Darwin's theory of evolution?

- ☐ Characteristics acquired during an individual's life are always passed to future generation
- ☒ Species change over long periods of time, giving rise to new species
- ☐ Darwin's views are no longer accepted by the scientific community
- ☐ Evolution is a rapid process by which new species evolve

17

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

Enzymes reduce the activation barrier of a biochemical process and alter the equilibrium constant of the process

- ☒ False
- ☐ True

18

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

Highest Glycemic index food is

- ☐ Proteins
- ☐ Lipids
- ☒ Glucose
- ☐ Bread

19

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

Which statement is correct?
All cells have

- ☐ Cell membrane, Nucleus and cytoplasm
- ☐ Cell wall, DNA and Cytoplasm
- ☐ Cell wall, DNA and ribosomes
- ☒ Cell membrane, DNA and ribosomes

20

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

A Hydrogen bond is weaker than a covalent bond. Thus, a biomolecular association such as protein-ligand binding is feasible only if protein-ligand association results in covalent bonding.

- ☒ False
- ☐ True

21

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

Which is the incorrect option for the natural causes of threats to Biodiversity?

- ☐ Overpopulation
- ☐ Narrow geographical area
- ☐ Natural disasters
- ☒ High breeding rate

22

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

Darwin got the idea of natural selection while observing variation of species in different islands. Which is the most important species that helped him to propose the theory of natural selection?

- ☒ Finches
- ☐ Peppered moths
- ☐ Rabbits
- ☐ Krills

23

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

Which of the following is a typical feature of a prokaryotic cell?

- ☒ Absence of nucleus

- ☐ Absence of DNA
- ☐ Absence of cell wall
- ☐ Absence of RNA

24

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

Choose the correct combination of gases used in the experimental setup by Stanley Miller & Urey

- ☐ Carbon dioxide (CO₂), Methane (CH₄), Hydrogen (H₂), Water (H₂O)
- ☐ Carbon dioxide (CO₂), Ammonia (NH₃), Hydrogen (H₂), Water (H₂O)
- ☒ Methane (CH₄), Ammonia (NH₃), Hydrogen (H₂), Water (H₂O)
- ☐ Carbon dioxide (CO₂), Methane (CH₄), ammonia (NH₃), Water (H₂O)

25

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

Type 1 diabetes is primarily treated with:

- ☐ Sleep and exercise
- ☐ Diet and exercise
- ☐ Glucagon injection
- ☒ Insulin injection

26

Multiple
Choice -
Single
Answer

✓

0.75

-

Hide Answer

Which one the correct statement?

- ☐ Archaea and Eubacteria follow Glycolysis and Krebs cycle
- ☐ Archaea follow Glycolysis and Krebs cycle
- ☒ Archaea do not follow Glycolysis and Krebs cycle
- ☐ Eubacteria do not follow Glycolysis pathway and Kreb's cycle

27

0.75

	Multiple Choice - Single Answer	✓		-	Hide Answer
<div>Obesity = Calorie</div> <div><div><input type="radio"/> False</div><div><input type="radio"/> True</div></div>					
28	Multiple Choice - Single Answer	✓	0.75	-	Hide Answer
<div>Exposure to prolonged heat (as in deep fat frying) creates Trans-fat which has higher melting temperature than its Cis-analogue</div> <div><div><input type="radio"/> False</div><div><input checked="" type="radio"/> True</div></div>					
29	Multiple Choice - Single Answer	✓	0.75	-	Hide Answer
<div>Humans are unable to digest</div> <div><div><input type="radio"/> complex carbohydrates</div><div><input type="radio"/> starch</div><div><input checked="" type="radio"/> cellulose</div><div><input type="radio"/> denatured proteins</div></div>					
30	Multiple Choice - Single Answer	✓	0.75	-	Hide Answer
<div>The driving force of a biochemical reaction can only be explained in terms of free energy but not in terms of entropy alone.</div> <div><div><input checked="" type="radio"/> False</div><div><input type="radio"/> True</div></div>					

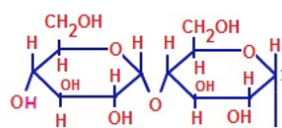
Section - 2

Marks per question : 1.25Marks Scored : 1.0Negative marks per question : 20%

Q No.	Q. Type	Status	Marks	Comment
1	Fill in the Blanks	✖	-0.25	-
<div>Hide Answer</div>				

100 g sample of glycogen was treated with radioactive cyanide (KC^{14}N). Exactly 2 moles of (C^{14}N) $^-$ were incorporated. Molecular weight (in g/mol) of glycogen is :

[Cyanide adds to the “aldehyde” group only. Molecular weight of KCN = 65 g/mol]



Glycogen

2

Fill in the
Blanks



1.25

-

Hide Answer

A human body produces 10^7 J of heat each day through metabolic activity. The main mechanism of heat loss is through the evaporation of water. How much water (in mol) will be evaporated in two days (2 DAYS) by utilizing the metabolic heat ? (Specific heat of water = $4000 \text{ J Kg}^{-1}\text{K}^{-1}$, Latent heat of vaporization of water = 40 KJ.mol^{-1})

Expected Solutions:

mol