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Question Paper Name:	Bio Technology 30th May 2019 Shift 1
Subject Name:	Bio Technology
Creation Date:	2019-05-29 13:32:44
Duration:	120
Total Marks:	120
Display Marks:	No
Share Answer Key With Delivery Engine:	Yes
Actual Answer Key:	Yes

Bio Technology

Group Number :	1
Group Id :	39090044
Group Maximum Duration :	0
Group Minimum Duration :	120
Revisit allowed for view? :	No
Revisit allowed for edit? :	No
Break time:	0
Group Marks:	120

Mathematics

Section Id :	39090081
Section Number :	1
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	10
Number of Questions to be attempted:	10
Section Marks:	10
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	39090081
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 3909005161 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

An urn contains 9 white, 5 yellow and 8 black marbles. A marble is chosen at random from the urn and it is noted that it is not one among yellow marbles. The probaility that it is white is

Options :

1. $\frac{9}{22}$

2. $\frac{14}{22}$

3. $\frac{13}{22}$

4. $\frac{1}{2}$

Question Number : 2 Question Id : 3909005162 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If X denotes the random variable when a fair die is rolled, the standard deviation of X is

Options :

1. $\sqrt{\frac{13}{12}}$

2. $\sqrt{\frac{3}{5}}$

3. $\sqrt{\frac{35}{12}}$

4. $\sqrt{\frac{35}{24}}$

Question Number : 3 Question Id : 3909005163 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Solving $1 + x \sin x = 0$ using secant method, (with $x_0 = 0, x_1 = 2$), we get $\frac{1+x_{n-1}\sin x_{n-1}}{x_{n-1}\sin x_{n-1} - x_{n-2}\sin x_{n-1}} =$

Options :

1. $\frac{x_n - x_{n-1}}{x_{n-1} - x_{n-2}}$

2. $\frac{x_{n-1}-x_{n-2}}{x_n-x_{n-1}}$

3. $\frac{x_n-x_{n-2}}{x_{n-2}-x_{n-4}}$

4. $\frac{x_{n-1}-x_{n-3}}{x_n-x_{n-2}}$

Question Number : 4 Question Id : 3909005164 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If y_p is a particular integral of $3y'' + 2y' + y = 1 + 2x + 3x^2$, then $y_p(x) =$

Options :

1. $3x^2 - 10x + 2$

2. $3x^2 - 10x + 5$

3. $3x^2 - 10x + 3$

4. $3x^2 - 10x - 3$

Question Number : 5 Question Id : 3909005165 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The solution of $y'' + 2y' + 4y = 0,\ y(0) = 1,\ y'(0) = -1$ is

Options :

1. $e^{-x}\sin\sqrt{3}x$

2. $e^{-x}\cos(\sqrt{3}+1)x$

3. $e^{-x}\cos\sqrt{2}x$

4. $e^{-x}\cos\sqrt{3}x$

Question Number : 6 Question Id : 3909005166 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Eliminating the arbitrary constants a, b from $f(x) = ae^{-3x} + bxe^{-3x}$ yields the equation

Options :

1. $y'' - 6y' - 9y = 0$

2. $y'' - 6y' + 9y = 0$

3. $y'' + 6y' + 9y = 0$

4. $y'' + 6y' - 9y = 0$

Question Number : 7 Question Id : 3909005167 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

$\sum_{n=1}^{\infty} \frac{n}{2^n} =$

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 8 Question Id : 3909005168 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Radius of convergence of $\sum_{n=0}^{\infty} n!\, x^n$ is

Options :

1. 0

2. 1

3. $\frac{1}{2}$

4. ∞

Question Number : 9 Question Id : 3909005169 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Characteristic equation of $A = \begin{bmatrix} 1 & -4 & 0 \\ 1 & -2 & 1 \\ 2 & -1 & -1 \end{bmatrix}$ is

Options :

1. $\lambda^3 + 2\lambda^2 + 4\lambda - 9 = 0$

2. $\lambda^3 + 2\lambda^2 + 4\lambda - 8 = 0$

3. $\lambda^3 + 2\lambda^2 + 4\lambda + 9 = 0$

4. $\lambda^3 + 2\lambda^2 + 4\lambda + 8 = 0$

Question Number : 10 Question Id : 3909005170 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If (x_0, y_0, z_0) is the solution of the system

$x + y + z = 0,\ x + 2y - z = 1,\ x - y + z = 5$, then $x_0^2 + y_0^2 + z_0^2 =$

Options :

1. $\frac{438}{16}$

2. $\frac{216}{8}$

3. $\frac{217}{8}$

4. $\frac{440}{16}$

Bio Technology

Section Id :	39090082
Section Number :	2
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	110
Number of Questions to be attempted:	110
Section Marks:	110
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	39090082
Question Shuffling Allowed :	Yes

Question Number : 11 Question Id : 3909005171 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Match the following products with their starting substrate:

Column 1	Column 2
A. Sake	1. Apple juice
B. Cider	2. Grape juice
C. Wine	3. Barley
D. Lager	4. Rice

Options :

1. A4, B1,C2,D3

2. A1,B4,C2,D3

3. A2, B3,C1,D4

4. A3,B4,C2,D1

Question Number : 12 Question Id : 3909005172 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which type of fermentation is used for insulin production?

Options :

1. Batch

2. Semi continuous

3. Continuous

4. Fed batch

Question Number : 13 Question Id : 3909005173 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In solid state fermentation, the product formation occurs

Options :

1. at the bottom of the vessel

2. on the surface of the substrate

3. middle of the vessel

4. side walls of the vessel

Question Number : 14 Question Id : 3909005174 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Foaming may be caused by

Options :

1. A decrease in the agitation

2. The formation of large stable bubbles

3. The formation of small unstable bubbles

4. The breaking of large unstable bubbles

Question Number : 15 Question Id : 3909005175 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

For which of the following operations are dilution rate and limiting a specific nutrient are important parameters?

Options :

1. Batch fermenter

2. Fed batch fermentation

3. Chemostat

4. Turbidostat

Question Number : 16 Question Id : 3909005176 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

. Assertion (A): A very low amount of inhibitor can act as an achiever for allosteric enzymes.

Reason (R): Allosteric enzymes follow Michaelis-Menten kinetics

Which is correct?

Options :

1. Both A and R are true and R is the correct reason for A

2. Both A and R are true and R is not the correct reason for A

3. A is true but R is false

4. A is false but R is true

Question Number : 17 Question Id : 3909005177 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Transplastomics

Options :

1. Target genes in chloroplast

2. Do not target genes

3. Target genes in mitochondria

4. Offers little opportunity for practical use

Question Number : 18 Question Id : 3909005178 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

To obtain virus free plants, which among the following is preferred?

Options :

1. micro propagation

2. shoot tip culture

3. root tip culture

4. grafting

Question Number : 19 Question Id : 3909005179 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following statements is incorrect for carotenoids?

Options :

1. Carotenoids are tetraterpenoids organic pigments

2. Xanthophylls are oxygen containing carotenoids

3. Carotenes are non hydrocarbon containing carotenoids with oxygen

4. Carotenoids in general absorb blue light

Question Number : 20 Question Id : 3909005180 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Embryonic stem cells are derived from

Options :

1. Fertilized embryo

2. Unfertilized embryo

3. Sperm

4. Kidney

Question Number : 21 Question Id : 3909005181 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

To create a transgenic organism:

Options :

1. introduce foreign DNA into a gamete or fertilized ovum

2. inject a gene of interest into a somatic cell

3. inject a gene of interest into several somatic cells

4. introduce foreign DNA into somatic cells in culture and transplant them

Question Number : 22 Question Id : 3909005182 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

. Which of the following would be used to study which genes are transcribed in a particular cell line?

Options :

1. gene expression profiling

2. DNA variation screening

3. microarray comparative genomic hybridization

4. transcription-mediated amplification

Question Number : 23 Question Id : 3909005183 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Animal biotechnologist generally uses Line-transect method for estimating density. It is based on assumption that

Options :

1. organism will not move from marked transect

2. all organisms are in straight line

3. that animals on the line are seen

4. organism lack any competition

Question Number : 24 Question Id : 3909005184 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The model organism to study cell lineage is

Options :

1. Xenopus

2. Yeast

3. *Caenorhabditiselegans*

4. *Drosophila*

Question Number : 25 Question Id : 3909005185 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The major role of T-cells in the immune response includes which of the following?

Options :

1. recognition of epitopes presented with major histocompatibility complex molecules on all surfaces

2. complement fixation

3. phagocytosis

4. production of antibodies

Question Number : 26 Question Id : 3909005186 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

. Patients with C5 through C9 complement deficiencies would be most likely to have which of the following infections?

Options :

1. AIDS

2. Meningococcal infection

3. Pneumococcal infection

4. Giardiasis

Question Number : 27 Question Id : 3909005187 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The class of immunoglobulin is determined by

Options :

1. The variable region

2. The J-chain

3. The heavy chain

4. The carbohydrate

Question Number : 28 Question Id : 3909005188 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following immunoglobulins is present normally in plasma at the highest concentration?

Options :

1. IgG

2. IgM

3. IgA

4. IgD

Question Number : 29 Question Id : 3909005189 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which situation below describes an example of innate immunity?

Options :

1. Antibody production by plasma cells
2. Antigen removal by cilia in the respiratory tract
3. Complement activation by antibody bound to the surface of a bacterium
4. Memory response to influenza virus

Question Number : 30 Question Id : 3909005190 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

First recombinant drug produced was

Options :

1. Insulin
2. Penicillin
3. Tetracycline
4. tPA

Question Number : 31 Question Id : 3909005191 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Molecular marker that is not based on PCR is

Options :

1. RFLP
2. RAPD
3. AFLP
4. SSLP

Question Number : 32 Question Id : 3909005192 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A culture of *Rhizobium* is grown in a chemostat (100 m^3 bioreactor). The feed contains 12g/L sucrose, K_s for the organism is 0.2g/L and $\mu_m = 0.3\ h^{-1}$. The flow rate required to result in steady state concentration of sucrose as 1.5g/L in the bioreactor will be

Options :

1. $15\ m^3\ h^{-1}$
2. $26\ m^3 h^{-1}$
3. $2.6\ m^3\ h^{-1}$
4. $150\ m^3\ h^{-1}$

Question Number : 33 Question Id : 3909005193 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Peptidyl transferase activity resides in

Options :

1. 16 S rRNA
2. 5 S rRNA
3. 23 rRNA
4. 28 Rrna

Question Number : 34 Question Id : 3909005194 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The protein in eukaryotes which is subjected to degradation undergoes

Options :

1. Phosphorylation
2. Carboxylation
3. Ubiquitation

4. Methylation

Question Number : 35 Question Id : 3909005195 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Apoptosis is characterized by

Options :

1. Necrosis

2. Programmed cell death

3. Membrane leaky syndrome

4. Cell cycle arrest process

Question Number : 36 Question Id : 3909005196 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Identification of blood group involves

Options :

1. Precipitation

2. Neutralization

3. Opsonization

4. Agglutination

Question Number : 37 Question Id : 3909005197 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Heat inactivation of serum is done to inactivate

Options :

1. Prions

2. Mycoplasma

3. Complement

4. Pathogenic bacteria

Question Number : 38 Question Id : 3909005198 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following amino acids in proteins does not undergo phosphorylation?

Options :

1. Ser

2. Thr

3. Pro

4. Tyr

Question Number : 39 Question Id : 3909005199 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What are the basic base – specific cleavage sites used in Maxem and Gilbert method?

Options :

1. A, T, G, C

2. C, T, A+G, T+C

3. A, G, A+T, G+C

4. G, C, A+G, C+T

Question Number : 40 Question Id : 3909005200 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

X-chromosome inactivation is known as _____

Options :

1. Dominance

2. Epistasis

3. Dosage compensation

4. Complementation

Question Number : 41 Question Id : 3909005201 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The type of mutation that is imposed by transposons is _____

Options :

1. Silent mutation

2. Reverse mutation

3. Polar mutation

4. Frame shift mutation

Question Number : 42 Question Id : 3909005202 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What are the two proteins which creates site specific recombination?

Options :

1. DNA topoisomerases and Spo11

2. DNA gyrase

3. DNA ligase

4. DNA helicase

Question Number : 43 Question Id : 3909005203 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which site of guanine is the site for mutation?

Options :

1. C-4

2. C-6

3. C-1

4. C-2

Question Number : 44 Question Id : 3909005204 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many mechanisms are present to enhance transcription by the enhancer molecules?

Options :

1. 2

2. 4

3. 3

4. 5

Question Number : 45 Question Id : 3909005205 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following does not take part in stabilizing the cloverleaf model of tRNA?

Options :

1. base stacking

2. base and sugar-phosphate backbone interaction

3. ionic bond

4. hydrogen bond

Question Number : 46 Question Id : 3909005206 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What do you mean by the term "Backwashing"?

Options :

1. excluding intermittent use of compressed air during the process

2. is a form of destructive maintenance

3. washing at the backside of the filter

4. including intermittent use of compressed air during the process

Question Number : 47 Question Id : 3909005207 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which sparger consists of a single open or partially-closed pipe providing a stream of air bubbles?

Options :

1. Perforated sparger

2. Orifice sparger

3. Nozzle sparger

4. Porous sparger

Question Number : 48 Question Id : 3909005208 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is the key element in the regulation of cell metabolism?

Options :

1. Hydrogen

2. Phosphorus

3. Oxygen

4. Nitrogen

Question Number : 49 Question Id : 3909005209 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The dissolved oxygen decreases when

Options :

1. the temperature is increased

2. the pressure is increased

3. the salinity is decreased

4. the salinity is increased

Question Number : 50 Question Id : 3909005210 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following are the oxygen requirements of molds?

Options :

1. strictly aerobic

2. facultativey aerobic

3. anaerobic

4. microaerophilic

Question Number : 51 Question Id : 3909005211 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the size of papillomaviruses?

Options :

1. 30 nm

2. 45 nm

3. 2 nm

4. 55 nm

Question Number : 52 Question Id : 3909005212 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following does not occur during binary fission in bacteria?

Options :

1. cell elongation

2. cytokinesis

3. DNA duplication

4. spindle formation

Question Number : 53 Question Id : 3909005213 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

. Which of the following has its antiviral action attributed to interference of protein synthesis?

Options :

1. Amantadine

2. Interferons

3. Acycloguanosine

4. 5'-iododeoxyuridine

Question Number : 54 Question Id : 3909005214 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is the correct sequence of events in replication by bacterial phage?

Options :

1. adsorption, pinning, DNA injection, sheath contraction

2. adsorption, pinning, sheath contraction, DNA injection

3. adsorption, absorption, sheath contraction, pinning

4. absorption, adsorption, DNA injection

Question Number : 55 Question Id : 3909005215 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The upper region of the trickling filter is favorable for the growth of _____

Options :

1. fungi

2. protozoa

3. algae

4. bacteria

Question Number : 56 Question Id : 3909005216 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is an example of bacterial and yeast polysaccharide?

Options :

1. Starch

2. Glycogen

3. Cellulose

4. Dextrans

Question Number : 57 Question Id : 3909005217 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following cannot denature a protein?

Options :

1. Iodoacetic acid

2. SDS detergent

3. Urea

4. Heating to 90°C

Question Number : 58 Question Id : 3909005218 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is not the classified form of conjugated proteins?

Options :

1. Lipoproteins

2. Glycoproteins

3. Metalloproteins

4. Complete proteins

Question Number : 59 Question Id : 3909005219 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In 3° structure of proteins, folding and shaping is done by

Options :

1. Hydrophobic interactions only

2. Polar interactions only

3. Hydrogen bonding only

4. Polar interactions & Hydrogen bonding

Question Number : 60 Question Id : 3909005220 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following enzyme is secreted by the pancreas?

Options :

1. Ribonuclease

2. Lysozyme

3. Cytochrome

4. Myoglobin

Question Number : 61 Question Id : 3909005221 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following are important for white blood cell recognition?

Options :

1. Glycosamineglycans

2. Proteoglycans

3. Gycoproteins

4. Glycolipids

Question Number : 62 Question Id : 3909005222 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a hydroxyl fatty acid?

Options :

1. Linoleic acid

2. Palmitic acid

3. Linolenic acid

4. Cerebronic acid

Question Number : 63 Question Id : 3909005223 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the given statements is incorrect about Microarray Analysis?

Options :

1. it is designed to detect global changes in transcription in a genome.

2. it provides information about the levels of protein products of the genes.

3. the proteins are first separated in a column on the basis of size and then across a second dimension on a slab on the basis of charge.

4. labeled protein samples may also be extracted from treated cells and separated by two-dimensional gel electrophoresis.

Question Number : 64 Question Id : 3909005224 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is not a correct about FASTA?

Options :

1. it stands for FAST ALL

2. it was in fact the first database similarity search tool developed, preceding the development of BLAST

3. FASTA uses a 'hashing' strategy to find matches for a short stretch of identical residues with a length of k

4. the string of residues is known as blocks

Question Number : 65 Question Id : 3909005225 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

From which of the following animal was the material isolated which was used for the vaccination for the first time?

Options :

1. cat

2. cow

3. pig

4. goat

Question Number : 66 Question Id : 3909005226 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

During exponential phase growth cycle of bacteria, growth rate is _____

Options :

1. same as generation time

2. reciprocal of generation time

3. time required for population to double

4. rate of doubling population

Question Number : 67 Question Id : 3909005227 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Nitroglycerin has long been administered to human patients suffering from chronic chest pain (angina). This medication works because it

Options :

1. mimics the action of signal receptors.

2. is broken down into hormones that affect the heart.

3. interferes with chemical cascades that trigger contraction of heart muscle.

4. breaks down into nitric oxide, which increases blood flow to the heart.

Question Number : 68 Question Id : 3909005228 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The binding of ligands to many G-proteins linked receptors leads to short-lived

Options :

1. increase in the concentration of certain intracellular signaling molecules called second messenger.

2. decrease in the concentration of certain intracellular signaling molecules called second messenger.

3. increase in the concentration of certain extracellular signaling molecules called first messenger.

4. decrease in the concentration of certain extracellular signaling molecules called first messenger.

Question Number : 69 Question Id : 3909005229 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A purified protein sample contains 10 µg of protein and has an enzyme activity of 1 m mole of ATP synthesized/sec (1 unit). What is the specific activity of the final purified sample?

Options :

1. 1,000 units/mg

2. 10,000 units/mg

3. 100,000 units/mg

4. 1,000,000 units/mg

Question Number : 70 Question Id : 3909005230 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is untrue about the genome mapping?

Options :

1. it doesn't lead to the understanding a genome structure

2. it involves identifying relative locations of genes

3. it involves identifying traits

4. it involves identifying mutations

Question Number : 71 Question Id : 3909005231 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of these genes codes for a protein that plays a role in white blood cell function?

Options :

1. DCP1

2. MPO

3. GLUT4

4. RP13

Question Number : 72 Question Id : 3909005232 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which DNA polymerase removes RNA primers in DNA synthesis?

Options :

1. Polymerase I

2. Polymerase II

3. Polymerase III

4. Replicase

Question Number : 73 Question Id : 3909005233 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Why do you think that antibiotics such as penicillin cannot be used with bacteria like mycobacterium tuberculosis, the causative agent of TB?

Options :

1. the cell wall of these organisms are not affected by penicillin
2. the spores that are produced by TB cannot be killed by antibiotics
3. the bacterium encyts within the body and cannot be killed with penicillin
4. the bacterium is gram negative which are not killed as easily with penicillin

Question Number : 74 Question Id : 3909005234 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The first amino acid to be incorporated in the eukaryotic polypeptide is _____

Options :

1. Methionine
2. Valine
3. N-formyl methionine
4. N-acyl valine

Question Number : 75 Question Id : 3909005235 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Polymorphism in RAPD is observed because _____

Options :

1. DNA used is from different chromosomes of same species
2. DNA used is from same chromosomes of same species
3. DNA used is from different chromosomes of different species
4. DNA used is from complementary chromosomes of same species

Question Number : 76 Question Id : 3909005236 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which three snRNPs together make the tri-snRNP particle?

Options :

1. U1, U2, U4

2. U2, U4, U5

3. U1, U5, U6

4. U4, U5, U6

Question Number : 77 Question Id : 3909005237 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

With respect to remodeling complex of nucleosome, which of the following is not true?

Options :

1. does not require ATP

2. favors sliding of histone

3. favors transfer of histone

4. favors remodeling of histone

Question Number : 78 Question Id : 3909005238 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

DNA helicase travels along _____

Options :

1. leading strand template in 3'→5' direction

2. leading strand template in 5'→3' direction

3. lagging strand template in 3'→5' direction

4. lagging strand template in 5'→3' direction

Question Number : 79 Question Id : 3909005239 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Protein synthesis in bacteria takes place on which of the following organelles?

Options :

1. endoplasmic Reticulum

2. golgi body

3. ribosomes

4. mitochondria

Question Number : 80 Question Id : 3909005240 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Spores formed by sexual reproduction on a club-shaped structure are _____

Options :

1. Ascospores

2. Zygospores

3. Basidiospores

4. Oospores

Question Number : 81 Question Id : 3909005241 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Among the following which is positive for coagulase test?

Options :

1. *Staphylococcus aureus*

2. *Staphylococcus epidermidis*

3. *Staphylococcus saprophyticus*

4. *E.coli*

Question Number : 82 Question Id : 3909005242 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Each year 80,000 people move into a city, 70,000 people move out, 18,000 are born, and 11,000 die. Write a balance on the population of the city.

Options :

1. 17,000 P/yr

2. 15,000 P/yr

3. 20,000 P/yr

4. 22,000 P/yr

Question Number : 83 Question Id : 3909005243 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is not a type of centrifugation?

Options :

1. hydro cyclone

2. tubular centrifuge

3. microfiltration

4. disk stack separator

Question Number : 84 Question Id : 3909005244 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In which of the following type of chromatography the capillary action mechanism is present?

Options :

1. Liquid chromatography

2. Gas chromatography

3. Thin- Layer chromatography

4. Paper chromatography

Question Number : 85 Question Id : 3909005245 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Calculate the stoichiometric coefficients of the following biological reaction:

Glucose: $C_6H_{12}O_6 + aO_2 + bNH_3 = c\ (C_4.4H_7.3N0.86O1.2) + d\ H_2O + e\ CO_2$

Options :

1. a= 1.573, b= 0.685, c= 0.470, d= 2.564, e= 2

2. a= 2.789, b= 1.896, c= 0.438, d= 1.395, e= 1

3. a= 1.473, b= 0.782, c= 0.909, d= 3.854, e= 2

4. a= 2.390, b= 1.295, c= 0.943, d= 2. 564, e= 1

Question Number : 86 Question Id : 3909005246 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

. A compound dissolves in water at a rate proportional to the product of the amount of undissolved solid and the difference between the concentration in a saturated solution and the actual solution; i.e., Csat – C(t). A saturated solution of this compound contains 40 g per 100 g of water. In a test run starting with 20 kg of undissolved compound in 100 kg of water, it was found that 5 kg dissolved in 3 hr. if the test continues, how many kg of compound will remain undissolved after 7 hr? Assume that the system is isothermal.

Options :

1. 11.56 kg

2. 10.72 kg

3. 11.76 kg

4. 10.52 kg

Question Number : 87 Question Id : 3909005247 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

. A 10,000 liter (of liqui4. bioreactor contains 5 g / L of growing cells $qO_2 = 20$ mmoles O_2 / (g cells hr) DT = 2 m, Di = 1 m, (6 – blade turbine agitator) x 3 blades and CL = 1 mg O_2/L. Calculate OUR.

Options :

1. 200 mmoles O_2 / (g cells hr)

2. 250 mmoles O_2 / (g cells hr)

3. 100 mmoles O_2 / (g cells hr)

4. 150 mmoles O_2 / (g cells hr)

Question Number : 88 Question Id : 3909005248 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What do you mean by wall growth in bioreactors?

Options :

1. growth of cells in the wall

2. consumption of paints by the cells from the coated walls

3. biomass concentration is increased

4. immobilized cells consumes substrate within reactors

Question Number : 89 Question Id : 3909005249 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What do you mean by "Axenic culture"?

Options :

1. containing single type of organism

2. containing two types of organism

3. containing multiple types of organism

4. not containing any type of organism

Question Number : 90 Question Id : 3909005250 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What do you mean by glycosylation?

Options :

1. addition of sugar

2. non-addition of sugar

3. lysis of sugar moieties

4. blockage of sugar molecules

Question Number : 91 Question Id : 3909005251 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Apparent viscosity for Non- Newtonian fluid is _____

Options :

1. constant

2. depends on the shear stress

3. depends on the shear rate

4. dynamic

Question Number : 92 Question Id : 3909005252 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is untrue regarding T-Coffee?

Options :

1. it stands for Tree-based Consistency Objective Function for alignment Evaluation

2. it performs progressive sequence alignments as in Clustal.

3. the global pair wise alignment is not performed using the Clustal program.

4. the local pair wise alignment is generated by the Lalign program, from which the top ten scored alignments are selected.

Question Number : 93 Question Id : 3909005253 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

_____ molecules can simply be identified based on their sequence similarity with

Options :

1. Larger & less conserved

2. Larger & highly conserved

3. Smaller & highly conserved

4. Shorter & highly conserved

Question Number : 94 Question Id : 3909005254 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which of the following is a part of the statistical test of sequences?

Options :

1. an optimal alignment between two chosen sequences is obtained at the end

2. unrelated sequences of the same length are then generated through a randomization process

3. unrelated sequences of the different length are then generated through a randomization process

4. related sequences of the same length are then generated through a randomization process

Question Number : 95 Question Id : 3909005255 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is incorrect regarding the advantages of molecular data for phylogenetics study?

Options :

1. they are more numerous than fossil records

2. they are easier to obtain as compared to fossil records

3. sampling bias is involved

4. more clear-cut and robust phylogenetic trees can be constructed with the molecular data

Question Number : 96 Question Id : 3909005256 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is an incorrect statement?

Options :

1. SAGE and DNA microarrays are both high throughput techniques that determine global mRNA expression levels

2. studies have indicated that the gene expression measurements from these methods are highly inconsistent with each other

3. SAGE does not require prior knowledge of the transcript sequence

4. DNA microarray experiments can only detect the genes spotted on the microarray

Question Number : 97 Question Id : 3909005257 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The specific DNA sequences to which the transcription factors bind are referred to as _____

Options :

1. replication elements
2. blocking factors
3. transcription factors
4. regulatory elements

Question Number : 98 Question Id : 3909005258 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following techniques can be used to determine the defective gene and for developing cancer?

Options :

1. Western blot
2. Southern blot
3. Eastern blot
4. Northern blot

Question Number : 99 Question Id : 3909005259 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Enzyme used in formation of cDNA from mRNA is

Options :

1. helicase
2. polymerase
3. reverse transcriptase

4. gyrase

Question Number : 100 Question Id : 3909005260 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is wrong about HMM GENE?

Options :

1. It is also an HMM-based web program

2. It uses a criterion called the conditional maximum likelihood to discriminate coding from non-coding features

3. HMM prediction is unbiased toward the locked region

4. If a sequence already has a sub-region identified as coding region, which may be based on similarity with cDNAs or proteins in a database, these regions are locked as coding regions.

Question Number : 101 Question Id : 3909005261 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Coiling of garden pea tendrils around any support is an example of:

Options :

1. Thermotaxis

2. Thigmotaxis

3. Thigmonasty

4. Thigmotropism

Question Number : 102 Question Id : 3909005262 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Process of determining precise order of nucleotides within DNA is

Options :

1. DNA replication

2. denaturation

3. blotting

4. DNA sequencing

Question Number : 103 Question Id : 3909005263 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

. Which pathway will result in the production of four carbon dioxide molecules, two ATP molecules, $NADH_2$ and $FADH_2$?

Options :

1. glycolysis

2. Krebs cycle

3. Calvin cycle

4. electron transport system

Question Number : 104 Question Id : 3909005264 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Haematopoietic stem cells are found in

Options :

1. skin

2. spleen

3. bone marrow

4. payers patches

Question Number : 105 Question Id : 3909005265 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The hybridomas are made by

Options :

1. fusing T cells with myeloma cells

2. fusing B cells with myeloma cells

3. fusing T helper cells with myeloma

4. fusing B memory cells with myeloma

Question Number : 106 Question Id : 3909005266 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If you cross a red eyed pure breeding female Drosophila with a white eyed male, then the F1 males so produces were crossed with white eyed male, what will be the eye colour of their daughters and sons in F2?

Options :

1. both daughters and sons red eyed

2. daughters with both eye colour while sons with white eye

3. both daughters and sons with both eye colours

4. daughters with red eye and sons with white eyes

Question Number : 107 Question Id : 3909005267 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following is wrong for temperature sensitive mutant?

Options :

1. the mutants die beyond the range of certain temperature

2. the enzymes they produce are always very unstable

3. the enzymes breakdown making the individual temperature sensitive

4. these are grown in special temperature controlled incubator

Question Number : 108 Question Id : 3909005268 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In an experiment a plant was dried, crushed and heated strongly in a crucible for long. The residue contains,

Options :

1. amides and carbonates of about ten elements

2. oxides and carbonates of three elements

3. carbon only

4. starch and related compounds

Question Number : 109 Question Id : 3909005269 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Wilting of a plant results from excessive

Options :

1. respiration

2. photosynthesis

3. absorption

4. transpiration

Question Number : 110 Question Id : 3909005270 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following plant hormone control fruit ripening?

Options :

1. ethylene

2. auxin

3. gibbrellins

4. abscisis acid

Question Number : 111 Question Id : 3909005271 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In sequence alignment by BLAST, each word from query sequence is typically _____ residues for protein sequences and _____ residues for DNA sequences.

Options :

1. ten, eleven

2. three, three

3. three, eleven

4. three, ten

Question Number : 112 Question Id : 3909005272 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Hormone pairs requires for a callus to differentiate are

Options :

1. auxin and cytokinin

2. auxin and Gibberellin

3. cytokinin and Gibberellin

4. ethylene and Gibberellin

Question Number : 113 Question Id : 3909005273 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Antibody diversity is generated by

Options :

1. protein splicing

2. somatic mutations

3. allelic exclusion

4. interchromosomal recombination

Question Number : 114 Question Id : 3909005274 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Viral replication within cells is inhibited by

Options :

1. IL-4

2. IL-1

3. IFN alpha

4. TNF alpha

Question Number : 115 Question Id : 3909005275 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In the course of cell cycle, the level of the protein cyclin abruptly falls during

Options :

1. G1 phase

2. G2 phase

3. S phase

4. M phase

Question Number : 116 Question Id : 3909005276 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Cell division cycle mutants are useful for the study of

Options :

1. chromosome breakpoint

2. apoptopsis

3. various stages of cell cycle

4. homeodomain

Question Number : 117 Question Id : 3909005277 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following is a second generation genetically engineered crop?

Options :

1. Btbrinjal

2. roundup soyabean

3. golden rice

4. Bt rice

Question Number : 118 Question Id : 3909005278 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is not true regarding PCR?

Options :

1. denaturation involves heating at 90-98°C

2. annealing involves binding of primer between 40-60°C

3. primer extension occurs at 72°C

4. denature does not occur

Question Number : 119 Question Id : 3909005279 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Prokaryotes have 1 RNA polymerase. How many RNA polymerases are there in eukaryotes?

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 120 Question Id : 3909005280 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Spectrin andankyrin are the example of _____

Options :

1. polytopic
2. monotopic
3. peripheral protein
4. integral protein