National Testing Agency

Question Paper Name :	ANIMAL BIOTECHNOLOGY PG 23rd Sep 2020 Shift 1 Set 2
Subject Name :	ANIMAL BIOTECHNOLOGY PG
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Actual Answer Key :	Yes

ANIMAL BIOTECHNOLOGY PG

Group Number :	1
Group Id :	21052915
Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	480
Is this Group for Examiner? :	No

ANIMAL BIOTECHNOLOGY PG

Section Id :	21052919
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	120

Number of Questions to be attempted :	120
Section Marks :	480
Display Number Panel :	Yes
Group All Questions :	Yes
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	21052919
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 2105291741 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The bacterial cell wall is predominantly made up of

1. Only protein
2. Lipoprotein
3. Glycoprotein
4. Only lipid

Options :

2105296961. 1

2105296962. 2

2105296963. 3

2105296964. 4

Question Number : 2 Question Id : 2105291742 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In 1975, Kohler and Milstein produced the first

1. Monoclonal antibody secreting hybridoma cell line
2. Synthetic DNA molecule
3. Vaccine
4. Synthetic bacterial cell wall

Options :

2105296965. 1

2105296966. 2

2105296967. 3

2105296968. 4

Question Number : 3 Question Id : 2105291743 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

During cell division a complete copy of DNA in its nucleus is made in

1. G1 phase
2. G2 phase
3. S phase
4. M phase

Options :

2105296969. 1

2105296970. 2

2105296971. 3

2105296972. 4

Question Number : 4 Question Id : 2105291744 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Channel proteins present in the plasma membrane are

1. Exclusively peripheral
2. Exclusively integral
3. Cytoplasmic
4. Peripheral protein present in the cytosolic face

Options :

2105296973. 1

2105296974. 2

2105296975. 3

2105296976. 4

Question Number : 5 Question Id : 2105291745 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Fluroacetate inhibit the action of enzyme

1. Aconitase
2. Citrate synthase
3. Isocitrate dehydrogenase
4. Alpha-ketoglutarate dehydrogenase

Options :

2105296977. 1

2105296978. 2

2105296979. 3

2105296980. 4

Question Number : 6 Question Id : 2105291746 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following enzymes is responsible for conversion of testosterone to 17β-estradiol?

1. 3β-Hydroxysteroid dehydrogenase
2. 17β-Hydroxysteroid dehydrogenase
3. Aromatase
4. 5α-reductase

Options :

2105296981. 1

2105296982. 2

2105296983. 3

2105296984. 4

Question Number : 7 Question Id : 2105291747 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which ONE of the following is an example of an irreversible inhibitor of acetylcholinesterase enzyme?

1. Malathion
2. Donepezil
3. Carbofuran
4. Aldicarb

Options :

2105296985. 1

2105296986. 2

2105296987. 3

2105296988. 4

Question Number : 8 Question Id : 2105291748 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Half-life of 32P is

1. 164 days
2. 87 days
3. 14 days
4. 8.1 days

Options :

2105296989. 1

2105296990. 2

2105296991. 3

2105296992. 4

Question Number : 9 Question Id : 2105291749 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Malonate is the competitive inhibitor of

1. Succinate dehydrogenase
2. Hexokinase
3. Malate dehydrogenase
4. Isocitrate dehydrogenase

Options :

2105296993. 1

2105296994. 2

2105296995. 3

2105296996. 4

Question Number : 10 Question Id : 2105291750 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following pathway can produce ATP in absence of oxygen

1. Oxidative phosphorylation
2. Electron transport chain
3. TCA cycle
4. Glycolysis

Options :

2105296997. 1

2105296998. 2

2105296999. 3

2105297000. 4

Question Number : 11 Question Id : 2105291751 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

An isoenzyme of hexokinase i.e., glucokinase, is present in

1. Skeletal muscle
2. Liver
3. Cardiac muscle
4. Adipose tissue

Options :

2105297001. 1

2105297002. 2

2105297003. 3

2105297004. 4

Question Number : 12 Question Id : 2105291752 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

G-protein coupled receptors are multi pass membrane proteins and span

1. Only one time in the plasma membrane
2. Three times in the plasma membrane
3. Five times in the plasma membrane
4. Seven times in the plasma membrane

Options :

2105297005. 1

2105297006. 2

2105297007. 3

2105297008. 4

Question Number : 13 Question Id : 2105291753 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following is present in the mammalian plasma membrane but absent in most of the prokaryotic cell membrane?

1. Cholesterol
2. Phospholipids
3. Carbohydrate
4. Protein

Options :

2105297009. 1

2105297010. 2

2105297011. 3

2105297012. 4

Question Number : 14 Question Id : 2105291754 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

An arginine residue in a polypeptide chain sequence is designated by which of the following single letter codes?

1. A
2. N
3. R
4. Q

Options :

2105297013. 1

2105297014. 2

2105297015. 3

2105297016. 4

Question Number : 15 Question Id : 2105291755 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following is a phospho-protein?

1. Immunoglobulin G
2. Albumin
3. Casein
4. Beta-lipoprotein

Options :

2105297017. 1

2105297018. 2

2105297019. 3

2105297020. 4

Question Number : 16 Question Id : 2105291756 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

If two enzyme E1 and E2 have Km value for a substrate 'A' as 0.1 mM and 0.01 mM respectively, and for another substrate 'B' as 0.5 mM and 0.05 mM respectively, then

1. E1 is more specific for substrate 'A' and 'B'
2. E2 is more specific for substrate 'A' and 'B'
3. E1 is mor specific for substrate 'A' and E2 is more specific for substrate 'B'
4. E2 is more specific for substrate 'A' and E1 is more specific for substrate 'B'

Options :

2105297021. 1

2105297022. 2

2105297023. 3

2105297024. 4

Question Number : 17 Question Id : 2105291757 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The anticodon of a triplet codon in mRNA is present in

1. Sn RNA
2. rRNA
3. tRNA
4. Premature mRNA

Options :

2105297025. 1

2105297026. 2

2105297027. 3

2105297028. 4

Question Number : 18 Question Id : 2105291758 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following is NOT a dimeric glycoprotein hormone?

1. Follicle stimulating hormone
2. Luteinizing hormone
3. Human chorionic gonadotropin
4. Luteotropic hormone

Options :

2105297029. 1

2105297030. 2

2105297031. 3

2105297032. 4

Question Number : 19 Question Id : 2105291759 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

An antibody raised against an antigen can be used to determine the location of antigen in a cell using

1. ELISA
2. Gel diffusion
3. Immunoflurosence light microscopy
4. Immunoelectrophoresis

Options :

2105297033. 1

2105297034. 2

2105297035. 3

2105297036. 4

Question Number : 20 Question Id : 2105291760 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Post-mortem autolysis is mainly caused by

1. Mitochondrial disruption
2. Lysosomal disruption
3. Nuclear disruption
4. Cytoplasmic enzyme

Options :

2105297037. 1

2105297038. 2

2105297039. 3

2105297040. 4

Question Number : 21 Question Id : 2105291761 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following amino acids does NOT have a degenerative codon?

1. Histidine
2. Leucine
3. Methionine
4. Valine

Options :

2105297041. 1

2105297042. 2

2105297043. 3

2105297044. 4

Question Number : 22 Question Id : 2105291762 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Light chain and heavy chains in antibody molecule are linked with each other with which of the following force or bond?

1. Hydrogen bond
2. Disulphide bond
3. Van der Waals interactions
4. Hydrophobic interactions

Options :

2105297045. 1

2105297046. 2

2105297047. 3

2105297048. 4

Question Number : 23 Question Id : 2105291763 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Variable and constant region of light chain of immunoglobulins are

1. Linked to Fc region of heavy chain
2. Joined together with disulphide bonds
3. Only involved in antigen binding site
4. Almost equal in size

Options :

2105297049. 1

2105297050. 2

2105297051. 3

2105297052. 4

Question Number : 24 Question Id : 2105291764 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

What should be the approximate molecular weight of the heavy chain of human IgG if the variable region is 110 amino acid long and constant region is three-times the variable region?

1. 11 KDa
2. 19 K Da
3. 48 KDa
4. 37 KDa

Options :

2105297053. 1

2105297054. 2

2105297055. 3

2105297056. 4

Question Number : 25 Question Id : 2105291765 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which ONE of the following histone protein(s) is known as "linker histone"?

1. H1
2. H2A and H2B
3. H3
4. H4

Options :

2105297057. 1

2105297058. 2

2105297059. 3

2105297060. 4

Question Number : 26 Question Id : 2105291766 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Action of papain on IgG molecule results in

1. Two identical fragments
2. Three fragments and two of which are identical
3. Three identical fragments
4. Three different fragments

Options :

2105297061. 1

2105297062. 2

2105297063. 3

2105297064. 4

Question Number : 27 Question Id : 2105291767 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Identify major class of antibody present in saliva, tears and intestinal mucus

1. Ig G
2. Ig M
3. Ig E
4. Ig A

Options :

2105297065. 1

2105297066. 2

2105297067. 3

2105297068. 4

Question Number : 28 Question Id : 2105291768 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Oral rehydration solutions given to dehydrating patients, contains both glucose and sodium.
The uptake of sodium is dependent on which one of the following cell transport mechanisms?

1. Uniporter
2. Antiporter
3. Symporter
4. Vesicular transporter

Options :

2105297069. 1

2105297070. 2

2105297071. 3

2105297072. 4

Question Number : 29 Question Id : 2105291769 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

During the production of hybridoma for monoclonal antibodies, the unfused myeloma cells fail to survive because

1. It over-expresses dihydrofolate reductase (DHFR)
2. Culture media contains aminopterin
3. It over-expresses hypoxanthine-guanine phosphoribosyltransferase (HGPRT)
4. These cells lack mitochondria

Options :

2105297073. 1

2105297074. 2

2105297075. 3

2105297076. 4

Question Number : 30 Question Id : 2105291770 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the statement is incorrect?

1. Phagocytes are involved in innate immunity
2. Antibodies are produced by cells of adaptive immunity
3. Fab fragment of antibody binds to antigen
4. Fc fragment of antibody binds to antigen

Options :

2105297077. 1

2105297078. 2

2105297079. 3

2105297080. 4

Question Number : 31 Question Id : 2105291771 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which class of antibody appears first in serum after exposure to an antigen?

1. Ig M
2. Ig G
3. Ig A
4. Ig D

Options :

2105297081. 1

2105297082. 2

2105297083. 3

2105297084. 4

Question Number : 32 Question Id : 2105291772 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The copy number of an expressed gene is measured by

1. Touchdown PCR
2. Reverse transcriptase PCR
3. Inverse PCR
4. Realtime PCR

Options :

2105297085. 1

2105297086. 2

2105297087. 3

2105297088. 4

Question Number : 33 Question Id : 2105291773 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I: Increase in temperature of a reaction mixture up to an optimum value increases the rate of enzyme reaction as it enhances the rate of collision between the substrate and enzyme active sites

Statement II: Increase in the temperature beyond an optimum value breaks the non-covalent bonds in enzyme first and thereby reaction velocity is decreased

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

Options :

2105297089. 1

2105297090. 2
2105297091. 3
2105297092. 4

Question Number : 34 Question Id : 2105291774 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I: Enzyme can be regulated allosterically if it has at least one ligand-binding site other than the active site

Statement II: Enzyme can be regulated by phosphorylation and dephosphorylation.

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

Options :
2105297093. 1
2105297094. 2
2105297095. 3
2105297096. 4

Question Number : 35 Question Id : 2105291775 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I: Suicidal inhibitor causes covalent modification of an enzyme active site and enzyme permanently becomes inactive

Statement II: Covalent modification of enzyme active site is initiated after binding of substrate to the active site of an enzyme – suicidal inhibitor complex

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

Options :

2105297097. 1

2105297098. 2

2105297099. 3

2105297100. 4

Question Number : 36 Question Id : 2105291776 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I: Hydrolysis of a peptide bond takes place rapidly because the activation energy of peptide bond hydrolysis is high

Statement II: Hydrolysis of the peptide bond is an exergonic reaction

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

Options :

2105297101. 1

2105297102. 2

2105297103. 3

2105297104. 4

Question Number : 37 Question Id : 2105291777 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I: If pH of a protein solution is more than its pI then the number of negatively charged protein molecules is more than the positively charged protein molecules

Statement II: If pH of a protein solution is equal to its pI then the net charge of protein is zero

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

Options :

2105297105. 1

2105297106. 2

2105297107. 3

2105297108. 4

Question Number : 38 Question Id : 2105291778 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I: For the culture of mammalian cell lines, glutamine is added to the culture media that serves as the precursor of nucleic acids besides being an important source of energy.

Statement II: Cholesterol and phospholipids are used in the basal media of several serum-free media formulations

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

Options :

2105297109. 1

2105297110. 2

2105297111. 3

2105297112. 4

Question Number : 39 Question Id : 2105291779 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Some of the unique features of the human mitochondrial genome are

A. The rRNA genes are among the smallest known, with a sedimentation coefficient of 16S and 12S for large and small subunits respectively
B. There are only 13 protein-coding genes each of which takes part in the electron transport chain
C. There are no intergenic regions in the genome
D. The genes are present only for 22 tRNAs

Choose the correct answer from the options given below:

1. A only
2. A and B only
3. A, B and C only
4. A, B, C and D

Options :

2105297113. 1
2105297114. 2
2105297115. 3
2105297116. 4

Question Number : 40 Question Id : 2105291780 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I: Alkaptonuria is known as an inborn error of metabolism associated with certain amino acids

Statement II: The mutation of *homogentisate 1,2-dioxygenase* (*HGD*) gene leads to abnormal metabolism of certain amino acids like phenylalanine and tyrosine that leads to alkaptonuria

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

Options :

2105297117. 1

2105297118. 2

2105297119. 3

2105297120. 4

Question Number : 41 Question Id : 2105291781 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Phospholipids synthesis

1. Happens solely in the smooth endoplasmic reticulum
2. Begins in the rough endoplasmic reticulum and ends in Golgi apparatus
3. Happens solely in Golgi apparatus
4. Happens in Mitochondria

Options :

2105297121. 1

2105297122. 2

2105297123. 3
2105297124. 4

Question Number : 42 Question Id : 2105291782 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Identify correct statements regarding peptide bond formation

A. A peptide bond is produced in a condensation reaction
B. During peptide bond formation, a water molecule is released from the reactant
C. A Peptide bond is a covalent bond
D. A Peptide bond is a non-covalent bond

Choose the correct answer from the option given below:

1. A & B only
2. B & C only
3. C & D only
4. A, B & C only

Options :
2105297125. 1
2105297126. 2
2105297127. 3
2105297128. 4

Question Number : 43 Question Id : 2105291783 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Edman degradation reaction is used in identifying

1. N-terminal amino acids
2. C-terminal amino acids
3. Lipids
4. Carbohydrates

Options :

2105297129. 1

2105297130. 2

2105297131. 3

2105297132. 4

Question Number : 44 Question Id : 2105291784 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

pI value of an ionizable 'R'-group of an amino acid residue in a protein may vary from its original value

A. Due to interaction with other ionizable groups present in the surrounding

B. Due to the loss of charge of α-amino and α-carboxyl groups of amino acid residue

C. Due to the non-interactive nature of ionizable R - group

D. Due to the presence of ionizable R - group in peptide backbone

Choose the correct answer from the option given below:

1. A & B only
2. B & C only
3. C & D only
4. D & A only

Options :

2105297133. 1

2105297134. 2

2105297135. 3

2105297136. 4

Question Number : 45 Question Id : 2105291785 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In competitive inhibition

A. Km of the enzyme is increased

B. Vmax of the enzyme is increased

C. Vmax of the enzyme is not changed

D. Inhibitor molecule is structurally similar to the substrate molecule of the enzyme

Choose the correct answer from the option given below:

1. A & B only
2. B & C only
3. B & D only
4. A, B, & D only

Options :

2105297137. 1

2105297138. 2

2105297139. 3

2105297140. 4

Question Number : 46 Question Id : 2105291786 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Iodine number of a fat is

1. Inversely proportional to the number of hydroxyl group present in a fatty acid
2. Directly proportional to its molecular weight
3. Directly proportional to its degree of unsaturation
4. Directly proportional to the number of carboxylic acid group present in the fatty acid

Options :

2105297141. 1

2105297142. 2

2105297143. 3

2105297144. 4

Question Number : 47 Question Id : 2105291787 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Citrate is isomerized to isocitrate by the action of enzyme

1. Triose isomerase
2. Aconitase
3. Isocitrate dehydrogenase
4. Pyruvate dehydrogenase

Options :

2105297145. 1

2105297146. 2

2105297147. 3

2105297148. 4

Question Number : 48 Question Id : 2105291788 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following is NOT capable to block the action of cytochrome oxidase?

1. Carbon monoxide
2. Cyanide
3. Carbon dioxide
4. Hydrogen sulphide

Options :

2105297149. 1

2105297150. 2
2105297151. 3
2105297152. 4

Question Number : 49 Question Id : 2105291789 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Among animals and humans the natural process by which clones are generated

1. Monozygotic twins
2. Dizygotic twins
3. Double fertilized eggs
4. Dedifferentiation

Options :
2105297153. 1
2105297154. 2
2105297155. 3
2105297156. 4

Question Number : 50 Question Id : 2105291790 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Which of the following is NOT present in the inner mitochondrial membrane?

1. NADH-Q reductase
2. ATP synthase
3. Q-cytochrome C-reductase
4. Glyphorine

Options :
2105297157. 1
2105297158. 2
2105297159. 3

2105297160. 4

Question Number : 51 Question Id : 2105291791 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Even in the absence of mitochondria, the Krebs cycle takes place in a prokaryotic cell. What is the site of this Krebs cycle in the cell?

1. Mesosomes
2. Nucleoid
3. Cytoplasm
4. Ribosomes

Options :

2105297161. 1
2105297162. 2
2105297163. 3
2105297164. 4

Question Number : 52 Question Id : 2105291792 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

What kind of covalent bonds join monomeric units in polysaccharides?

1. Glucose bond
2. Peptide bond
3. Phosphodiester bond
4. Glycosidic bond

Options :

2105297165. 1
2105297166. 2
2105297167. 3
2105297168. 4

Question Number : 53 Question Id : 2105291793 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following amino acid is a precursor of nicotinic acid?

1. Tyrosine
2. Tryptophan
3. Threonine
4. Phenyl alanine

Options :

2105297169. 1

2105297170. 2

2105297171. 3

2105297172. 4

Question Number : 54 Question Id : 2105291794 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Marker enzyme of lysosome is

1. Aryl sulphurylase
2. Trypsin
3. Acid phosphatase
4. Cytochromeoxidase

Options :

2105297173. 1

2105297174. 2

2105297175. 3

2105297176. 4

Question Number : 55 Question Id : 2105291795 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Which of the following is NOT present in serum?

1. Albumin α1
2. Albumin β fraction
3. Fibrinogen
4. Globulin

Options :

2105297177. 1
2105297178. 2
2105297179. 3
2105297180. 4

Question Number : 56 Question Id : 2105291796 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Which of the following is NOT an eicosanoids?

1. Prostanoids
2. Leukotrienes
3. Lipoxin
4. Cholesterol

Options :

2105297181. 1
2105297182. 2
2105297183. 3
2105297184. 4

Question Number : 57 Question Id : 2105291797 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Respiratory distress syndrome is common in premature infants as their lungs lack

1. Dipalmitoyl lecithin
2. Phosphotidyl ethanolamine
3. Phosphotidyl choline
4. Inositol triphosphate

Options :

2105297185. 1

2105297186. 2

2105297187. 3

2105297188. 4

Question Number : 58 Question Id : 2105291798 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Von Gierke's disease is a glycogen storage disease that occurs due to

1. Deficiency of glucose-6-phosphatase
2. Absence of debranching enzyme
3. Absence of branching enzyme
4. Absence of muscle phosphorylase

Options :

2105297189. 1

2105297190. 2

2105297191. 3

2105297192. 4

Question Number : 59 Question Id : 2105291799 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In myasthenia gravis, an autoimmune disease, auto-antibodies bind to

1. Adrenal cortex cells
2. Collagen
3. Insulin receptor
4. Acetylcholine receptor at the neuromuscular junction

Options :

2105297193. 1

2105297194. 2

2105297195. 3

2105297196. 4

Question Number : 60 Question Id : 2105291800 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which ONE of the following fat soluble vitamins if deficient is responsible for disease related to blood clotting?

1. Vitamin A
2. Vitamin D
3. Vitamin E
4. Vitamin K

Options :

2105297197. 1

2105297198. 2

2105297199. 3

2105297200. 4

Question Number : 61 Question Id : 2105291801 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Xanthine oxidase plays an important role in the conversion of purine base to uric acid and it contains

1. Cobalt
2. Aluminium
3. Zinc
4. Molybdenum

Options :

2105297201. 1

2105297202. 2

2105297203. 3

2105297204. 4

Question Number : 62 Question Id : 2105291802 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The largest biomolecule in a living cell is

1. Glycogen
2. Protein
3. Cholesterol
4. Deoxyribonucleic acid

Options :

2105297205. 1

2105297206. 2

2105297207. 3

2105297208. 4

Question Number : 63 Question Id : 2105291803 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following is responsible for the movement of oxygen molecules from the alveoli into the blood in the pulmonary capillaries?

1. Active transport
2. Filtration
3. Passive diffusion
4. Facilitated diffusion

Options :

2105297209. 1

2105297210. 2

2105297211. 3

2105297212. 4

Question Number : 64 Question Id : 2105291804 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following pituitary hormone is an opoid peptide?

1. Alpha- melanocyte stimulating hormone
2. Adrenocorticotrophic hormone
3. Beta- endorphin
4. Growth hormone

Options :

2105297213. 1

2105297214. 2

2105297215. 3

2105297216. 4

Question Number : 65 Question Id : 2105291805 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A high plasma Ca^{2+} level causes which one of the following conditions?

1. Bone demineralization
2. Increased formation of 1,25-dihydroxy cholecalciferol
3. Decreased secretion of calcitonin
4. Increased formation of 24,25 –dihydroxycholecalciferol

Options :

2105297217. 1

2105297218. 2

2105297219. 3

2105297220. 4

Question Number : 66 Question Id : 2105291806 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which one of the following is NOT a second messenger in the signal transduction pathway?

1. cAMP
2. Inositol 1,4,5 triphosphate
3. Acetyl choline
4. Ca^{2+}

Options :

2105297221. 1

2105297222. 2

2105297223. 3

2105297224. 4

Question Number : 67 Question Id : 2105291807 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

For which of the following processes, ATP is not required?

1. Polymerase chain reaction
2. DNA ligation
3. Restriction endonuclease digestion
4. Transcription

Options :

2105297225. 1

2105297226. 2

2105297227. 3

2105297228. 4

Question Number : 68 Question Id : 2105291808 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

A population of inner cell mass from the blastocyst of a mouse strain "A" was microinjected in a blastocyst of mouse stain "B". The blastocysts was then implanted in a pseudopregnant mouse of strain "B". The pups finally produced are called

1. Mosaic
2. Chimeric
3. Tetraploid
4. Aneuploid

Options :

2105297229. 1

2105297230. 2

2105297231. 3

2105297232. 4

Question Number : 69 Question Id : 2105291809 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following factors affect the responses of a target cell to a hormone?

A. Hormone concentration
B. Target cell type
C. The abundance of hormone receptors
D. Influence of other hormones
E. Age of the target cell

Choose the correct answer from the option given below:

1. A, B, C only
2. B, C, D only
3. A, C, D only
4. A, B, C, D, E

Options :

2105297233. 1
2105297234. 2
2105297235. 3
2105297236. 4

Question Number : 70 Question Id : 2105291810 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Which of the following has the greatest effect on the ability of blood to transport O_2 (oxygen)?

1. Capacity of the blood to dissolve O_2
2. Amount of haemoglobin in the blood
3. CO_2 (Carbon dioxide) content of RBCs
4. pH of plasma

Options :

2105297237. 1
2105297238. 2
2105297239. 3
2105297240. 4

Question Number : 71 Question Id : 2105291811 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I: Intravenous infusion of 100 ml normal saline to a healthy cow does not change its blood pH

Statement II: Intravenous infusion of 10 ml phosphate-buffered saline to a healthy cow does not change its blood pH

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

Options :
2105297241. 1
2105297242. 2
2105297243. 3
2105297244. 4

Question Number : 72 Question Id : 2105291812 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Which of the following amino acids has four isomers?

1. Glycine
2. Isoleucine
3. Leucine
4. Methionine

Options :

2105297245. 1

2105297246. 2

2105297247. 3

2105297248. 4

Question Number : 73 Question Id : 2105291813 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The ratio that approximates, the number of net molecules of ATP formed per mole of glucose oxidised in the presence of oxygen to net number formed in its absence is

1. 4:1
2. 10:1
3. 18:1
4. 24:1

Options :

2105297249. 1

2105297250. 2

2105297251. 3

2105297252. 4

Question Number : 74 Question Id : 2105291814 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

How many recombination events are likely to occur in forming the heavy chain with the recombined locus as 5′-V_{17}-D_2-J_2-Cμ-$C\gamma_1$--Cϵ-3′ by an antigen-stimulated naïve B cell producing IgG1 antibody?

1. One
2. Two
3. Three
4. Four

Options :

2105297253. 1

2105297254. 2

2105297255. 3

2105297256. 4

Question Number : 75 Question Id : 2105291815 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following are inhibitors of electron transport chain?

A. Rotenone
B. Amobarbital
C. Piericidin A
D. Chlorpromazine
E. Atractyloside

Choose the ***most appropriate*** answer from the options given below

1. A, B, C, E
2. A, B, C, D
3. B, C, D, E
4. A, C, E

Options :

2105297257. 1
2105297258. 2
2105297259. 3
2105297260. 4

Question Number : 76 Question Id : 2105291816 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The antibiotic "ciprofloxacin" used in the treatment of bovine mastitis helps control the infection by interfering with the bacterial

1. Replication of DNA
2. Transcription of DNA
3. Translation of RNA
4. Posttranslational modification of proteins

Options :

2105297261. 1
2105297262. 2
2105297263. 3
2105297264. 4

Question Number : 77 Question Id : 2105291817 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

What are the enzymes in which zinc ion is bound tightly to the enzyme and is not dissociated even after several steps of purification

A. Carbonic anhydrase
B. Alcoholdehydrogenase
C. Cytochrome oxidase
D. Glucose 6-phosphatase
E. Alkaline phosphatase
F. Lactate dehydrogenase

Choose the ***most appropriate*** answer from the option given below

1. A, B, C, D, E
2. B, C, D, E, F
3. A, B, E, F
4. C, D, E, F

Options :

2105297265. 1

2105297266. 2

2105297267. 3

2105297268. 4

Question Number : 78 Question Id : 2105291818 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following hormone stimulates Na + (sodium ion) retention?

1. Adrenaline
2. Aldosterone
3. Cortisol
4. Oestrogen

Options :

2105297269. 1
2105297270. 2
2105297271. 3
2105297272. 4

Question Number : 79 Question Id : 2105291819 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

In saturated condition, 1g of haemoglobin can carry approximately

1. 1.3 ml of oxygen
2. 0.5 ml of oxygen
3. 2.5 ml of oxygen
4. 5 ml of oxygen

Options :

2105297273. 1
2105297274. 2
2105297275. 3
2105297276. 4

Question Number : 80 Question Id : 2105291820 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Glucose transporter present in liver and pancreatic β (beta) - cell

1. GLUT-1
2. GLUT-2
3. GLUT-3
4. GLUT-4

Options :

2105297277. 1
2105297278. 2

2105297279. 3
2105297280. 4

Question Number : 81 Question Id : 2105291821 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

An intermediate of TCA cycle found in the reaction of Urea cycle is

1. Succinate
2. Succinyl CoA
3. Fumarate
4. Arginine

Options :

2105297281. 1
2105297282. 2
2105297283. 3
2105297284. 4

Question Number : 82 Question Id : 2105291822 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The inner cell mass present in the blastocyst of a mammalian embryo is

1. Totipotent
2. Pluripotent
3. Multipotent
4. Unipotent

Options :

2105297285. 1
2105297286. 2
2105297287. 3
2105297288. 4

Question Number : 83 Question Id : 2105291823 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Hormone that binds to intracellular receptor

1. Glucocorticoid
2. Calcitonin
3. Glucagon
4. Luteinizing hormone

Options :

2105297289. 1

2105297290. 2

2105297291. 3

2105297292. 4

Question Number : 84 Question Id : 2105291824 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following peptides will act as antibiotics?

A. Gramicidin
B. Ergothioneine
C. Actinomycin
D. Chloramphenicol
E. Acetazolamide

Choose the ***most appropriate*** answer from the option given below:

1. A, E
2. C, D, E
3. A, C, D
4. B, C, D

Options :

2105297293. 1

2105297294. 2

2105297295. 3

2105297296. 4

Question Number : 85 Question Id : 2105291825 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following are synthesized by tyrosine?

A. Thyroid hormone

B. Epinephrine

C. Melanin

D. Haem

Choose the correct answer from the option given below:

1. A, D
2. B, D
3. B, C
4. A, B, C

Options :

2105297297. 1

2105297298. 2

2105297299. 3

2105297300. 4

Question Number : 86 Question Id : 2105291826 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Monosaccharides are absorbed into the intestine
A. By a sodium-dependent cotransporter for glucose and galactose
B. By a sodium independent facilitated transport for fructose
C. By a sodium independent transporter (GLUT-2) across the concentraluminal membrane
D. Against a concentration gradient of the sodium-dependent transporter

Choose the ***most appropriate*** answer from the option given below:

1. A, B
2. B, C
3. B, C, D
4. A, B , C, D

Options :
2105297301. 1
2105297302. 2
2105297303. 3
2105297304. 4

Question Number : 87 Question Id : 2105291827 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Sulphonamides serve to inhibit the

1. Growth of cancer cells, since they inhibit mammalian dihydrofolate formation
2. Folate biosynthesis in bacteria
3. Folate biosynthesis in animals
4. Growth of cancer cells since they inhibit thymidylate synthase

Options :
2105297305. 1
2105297306. 2
2105297307. 3
2105297308. 4

Question Number : 88 Question Id : 2105291828 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Among existing technologies , which of the following vector system would you prefer to use for generating a library for 140 kb eukaryotic genomic DNA fragments while giving due consideration to size as well as stability of insert

1. Phage
2. Cosmid
3. Bacterial Artificial Chromosome (BAC)
4. Phagemid

Options :

2105297309. 1

2105297310. 2

2105297311. 3

2105297312. 4

Question Number : 89 Question Id : 2105291829 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

How many molecules of retinol can be generated from one molecule of (β) beta carotene?

1. One
2. Two
3. Four
4. Eight

Options :

2105297313. 1

2105297314. 2

2105297315. 3

2105297316. 4

Question Number : 90 Question Id : 2105291830 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

How many peptide bonds will be there in polypeptide comprising of 10 amino acids?

1. Ten
2. Eleven
3. Twelve
4. Nine

Options :

2105297317. 1

2105297318. 2

2105297319. 3

2105297320. 4

Question Number : 91 Question Id : 2105291831 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which amongst the following reagents is used for identification of N-terminal amino acid in a peptide chain?

1. Ninhydrin
2. Nitrous acid
3. Mercaptoethanol
4. 2,4-dinitro fluorobenzene (DNFB)

Options :

2105297321. 1

2105297322. 2

2105297323. 3

2105297324. 4

Question Number : 92 Question Id : 2105291832 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Double-stranded circular form of DNA is present in all following cases **except**

1. Eukaryotic chromosomal DNA
2. Bacterial chromosomal DNA
3. Mitochondrial DNA
4. Chloroplast DNA

Options :

2105297325. 1

2105297326. 2

2105297327. 3

2105297328. 4

Question Number : 93 Question Id : 2105291833 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Glutathione can be an example of which one of the following?

1. Lipids
2. Carbohydrate
3. Protein
4. Peptide

Options :

2105297329. 1

2105297330. 2

2105297331. 3

2105297332. 4

Question Number : 94 Question Id : 2105291834 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Heparin is an anticoagulant because of its overall

1. Positive charge
2. Negative charge
3. Net Zero charge
4. Lipid molecule

Options :

2105297333. 1

2105297334. 2

2105297335. 3

2105297336. 4

Question Number : 95 Question Id : 2105291835 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Neutral lipids are comprised of which of the molecules

1. Glycerol and phosphoric acid
2. Glycerol and fatty acids
3. Glycerol and steroids
4. Glycerol and carbohydrates

Options :

2105297337. 1

2105297338. 2

2105297339. 3

2105297340. 4

Question Number : 96 Question Id : 2105291836 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which one of the following fatty acids has the highest number of double bonds?

1. Oleic acid
2. Linoleic acid
3. Linolenic acid
4. Arachidonic acid

Options :

2105297341. 1

2105297342. 2

2105297343. 3

2105297344. 4

Question Number : 97 Question Id : 2105291837 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The fluidity of a lipid bilayer is temperature-dependent. With cooling, it undergoes gellification and loses its fluidity as

1. Phase change happens and liquid crystals form
2. Hydrocarbon tail stiffens at a lower temperature
3. Bilayer gets thicker
4. Bilayer gets thinner

Options :

2105297345. 1

2105297346. 2

2105297347. 3

2105297348. 4

Question Number : 98 Question Id : 2105291838 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Choose the correct pair from the options given below

1. Pus cells in milk - Vitamin C
2. Rickets - Zinc
3. Body fluid accumulation, beriberi - Vitamin B1
4. Ketosis - Vitamin K

Options :

2105297349. 1

2105297350. 2

2105297351. 3

2105297352. 4

Question Number : 99 Question Id : 2105291839 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Choose the correct pair from the options given below

1. Crystal of $CuSO_4$ - Renal casts
2. Crystal of Calcium Oxalate - About 75% of kidney stones
3. Crystal of $HgCl_2$ - Fecalith
4. Crystal of NaCl - Mucous cast

Options :

2105297353. 1

2105297354. 2

2105297355. 3

2105297356. 4

Question Number : 100 Question Id : 2105291840 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Choose the correct pair from the options given below

1. Rickets - Pyometra
2. Gentamycin - Vitamin E
3. Vitamin A - Dryness of skin, eyes, night-blindness
4. Pica - Retained placenta

Options :

2105297357. 1

2105297358. 2

2105297359. 3

2105297360. 4

Question Number : 101 Question Id : 2105291841 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Following events occur during apoptosis

A. Certain proteins are released, which are contained between the inner mitochondrial membrane and outer mitochondrial membrane (eg., Cytochrome C)

B. Which causes the destruction of cellular proteins.

C. This activates caspase 9

D. Apoptotic signals carried through FADD activates caspase 8, which targets mitochondria.

E. The result is cell death by apoptosis.

Choose the correct sequence from the options given below:

1. A, C, D, E, B
2. B, E, D, C, A
3. D, A, C, B, E
4. C, E, B, D, A

Options :

2105297361. 1

2105297362. 2
2105297363. 3
2105297364. 4

Question Number : 102 Question Id : 2105291842 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I:

Phosphocreatine is formed from ATP in the resting cell and ATP is low. Phosphocreatine thereby acts as a buffer in the cell that contains creatine kinase.

Statement II:

ATP is formed in the cell in mitochondria and chloroplast by a mechanism i.e., essentially ATP driven ion transport operating in reverse.

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

Options :
2105297365. 1
2105297366. 2
2105297367. 3
2105297368. 4

Question Number : 103 Question Id : 2105291843 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is

Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I:

Shuttle vectors are used to overexpress proteins ONLY in *E. coli.*

Statement II:

Phagemids contain an origin of replication for phages and bacterial cells

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

Options :

2105297369. 1

2105297370. 2

2105297371. 3

2105297372. 4

Question Number : 104 Question Id : 2105291844 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I:

Protein array is powerful proteomic technology using the fusion of microarray and ELISA on protein chip.

Statement II:

Protein array is powerful genomic technology using enzyme structure and NMR for limited drug design

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

Options :

2105297373. 1

2105297374. 2

2105297375. 3

2105297376. 4

Question Number : 105 Question Id : 2105291845 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Arrange the following steps in DNA fingerprinting using restriction fragment length polymorphism (RFLP) in the correct sequence

A. Electrophoresis is done
B. Scientists break the DNA into pieces using enzyme and cut segments of DNA are separated
C. Detected by fluorescent tag on their primer
D. Region of DNA containing STR is amplified by PCR using primer complementary to the non-repeating sequence flanking the repeats
E. Tandemly repeated DNA sequences occur in the genome, including short tandem repeats (STRs)

Choose the correct answer from the options given below:

1. A, B, C, D, E
2. E, B, D, A, C
3. C, A, D, B, E
4. B, E, C, A, D

Options :

2105297377. 1

2105297378. 2

2105297379. 3

2105297380. 4

Question Number : 106 Question Id : 2105291846 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Arrange the steps involved in the maintenance of embryonic stem (ES) cell culture in the correct sequence:

A. Prepare feeder plates two days in advance
B. Passaging is done at 1:4 ratio
C. Undifferentiated ES cells require 37° C, 5% CO_2, RH 85-100% since they can differentiate spontaneously
D. Trypsinisation or mechanical cutting is done
E. Start feeding 48 hrs after thawing/passaging, every day

Choose the correct answer from the options given below:

1. A, C, D, E, B
2. C, A, B, E, D
3. C, A, D, B, E
4. B, D, C, E, A

Options :

2105297381. 1

2105297382. 2

2105297383. 3

2105297384. 4

Question Number : 107 Question Id : 2105291847 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I:

Brief exposure of washed bovine semen to the saturated solution of EDTA is done to increase IVF results by capacitation

Statement II:

Brief exposure of washed bovine semen to high ionic strength media (380 mOsm) or heparin is done to increase IVF result by capacitation

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

Options :

2105297385. 1

2105297386. 2

2105297387. 3

2105297388. 4

Question Number : 108 Question Id : 2105291848 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Extraction of energy from carbohydrate in the absence of oxygen giving alcohol by yeast and lactic acid by bacteria is used for

1. Butter making
2. Distilled cow urine
3. Yogurt making
4. Cow dung wood making

Options :

2105297389. 1

2105297390. 2

2105297391. 3

2105297392. 4

Question Number : 109 Question Id : 2105291849 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Arrange the following events for the history of life on earth:

A. Prokaryotic cell
B. Eukaryotic cell
C. Multicellular organisms
D. Organic molecule
E. Self-replicating molecule

Choose the correct answer from the options given below:

1. D, E, C, A, B
2. D, E, A, B, C
3. E, D, A, C, B
4. D, E, A, C, B

Options :

2105297393. 1

2105297394. 2
2105297395. 3
2105297396. 4

Question Number : 110 Question Id : 2105291850 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Success of hepatitis B vaccine is because

1. Sub unit vaccine made only with the essential antigens ensures adverse reaction chances are minimized.
2. Recombinant DNA technology usage ensures all epitope are covered.
3. Entire microbe is used to create vaccine and immune system is stimulated by polyvalent source.
4. Most of the molecules making the microorganisms are utilized after virulent region of pathogen is removed from the microbe.

Options :
2105297397. 1
2105297398. 2
2105297399. 3
2105297400. 4

Question Number : 111 Question Id : 2105291851 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Cholesterol is a plasticizer as

1. It forms the bilayer and increases membrane fluidity at high temperature
2. It is not rigid steroid ring system
3. It does not interfere with the motions of the fatty acid side chain in other membrane lipids
4. Inhibits the order in the fatty acid chains by fitting in between them

Options :

2105297401. 1
2105297402. 2
2105297403. 3
2105297404. 4

Question Number : 112 Question Id : 2105291852 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 4 Wrong Marks : 1

Given below are two statements:

Statement I:

Haemoglobin and methaemoglobin are intracellular electron carriers in RedOx reactions to drive ATP synthesis.

Statement II:

Isoprenoids(Ubiquinone, CoQ, Plastoquinone) are lipophilic electron carriers in RedOx reaction to drive ATP synthesis.

In the light of the above statements, choose the ***most appropriate*** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

Options :
2105297405. 1
2105297406. 2
2105297407. 3
2105297408. 4

Question Number : 113 Question Id : 2105291853 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Viruses are not classified as living because

1. They lack the metabolic apparatus to reproduce outside their host cell
2. They are simpler than prokaryotes
3. They lack fimbriae
4. They lack endoplasmic reticulum and nucleus

Options :

2105297409. 1

2105297410. 2

2105297411. 3

2105297412. 4

Question Number : 114 Question Id : 2105291854 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Processing, packaging the target proteins for export to cell organelles by shuttling is the job of

1. Plasma membrane
2. Nucleus
3. Endoplasmic reticulum
4. Transport vesicles

Options :

2105297413. 1

2105297414. 2

2105297415. 3

2105297416. 4

Question Number : 115 Question Id : 2105291855 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Lecithin's constituents are

1. Glycerol and fatty acid
2. Glycerol, fatty acid, and phosphoric acid
3. Glycerol, fatty acid, phosphoric acid and choline
4. Glycerol, fatty acid and carbohydrate

Options :

2105297417. 1

2105297418. 2

2105297419. 3

2105297420. 4

Question Number : 116 Question Id : 2105291856 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

How many rings present in cholesterol contain six carbon atoms?

1. One
2. Two
3. Three
4. Four

Options :

2105297421. 1

2105297422. 2

2105297423. 3

2105297424. 4

Question Number : 117 Question Id : 2105291857 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Glycogen is abundantly present in which of the following tissues?

1. Liver
2. Kidney
3. Heart
4. Pancreas

Options :

2105297425. 1

2105297426. 2

2105297427. 3

2105297428. 4

Question Number : 118 Question Id : 2105291858 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Nearly 90% of positively charged ions present in the extracellular fluid are

1. Potassium ion
2. Sodium ion
3. Calcium ion
4. Sulphate ion

Options :

2105297429. 1

2105297430. 2

2105297431. 3

2105297432. 4

Question Number : 119 Question Id : 2105291859 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

The full DNA genome was completely sequenced in

1. Bacteriophage φX174
2. Plasmid pBR322
3. Bacteriophage ʎ
4. Yeast chromosome III

Options :

2105297433. 1

2105297434. 2

2105297435. 3

2105297436. 4

Question Number : 120 Question Id : 2105291860 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 4 Wrong Marks : 1

Which of the following is NOT a correct statement about phospholipase A2?

1. It releases fatty acid from glycerol during inflammation
2. It is found in mammals
3. It is found in snake venom
4. It does not have any isozyme

Options :

2105297437. 1

2105297438. 2

2105297439. 3

2105297440. 4