National Testing Agency

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ANIMAL BIOTECHNOLOGY PG

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ANIMAL BIOTECHNOLOGY PG -1

Section Id :	190889132
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Sub-Section Number :	1
Sub-Section Id :	190889172
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 1908896262 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Read the following statements carefully:

Statement I: Histones are rich in arginine and lysine. Thus, they are positively charged proteins at physiological pH.

Statement II: Histones are the most evolutionary conserved proteins known.

Choose the most appropriate answer from the following options:

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

Options :

19088924941. 1

19088924942. 2

19088924943. 3

19088924944. 4

Question Number : 2 Question Id : 1908896263 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The scientist(s) who first scientifically proved that DNA is the genetic material is/are-

1. Frederick Griffith
2. Oswald Avery, Maclyn McCarty, and Colin MacLeod
3. Alfred Hershey and Martha Chase
4. James Watson and Francis Crick

Options :

19088924945. 1

19088924946. 2

19088924947. 3

19088924948. 4

Question Number : 3 Question Id : 1908896264 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match **column I** with **column II.**

Column I	**Column II**
A. F. Meischer	I. DNA double helix
B. Griffith	II. Nuclein
C. Hershey and Chase	III. *S. pneumoniae*
D. Watson and Crick	IV. Bacteriophages

Choose the ***correct*** answer from the options given below:

1. A - III, B - II, C - IV, D - I
2. A - II, B - IV, C - III, D - I
3. A - II, B - III, C - I, D - IV
4. A - II, B - III, C - IV, D - I

Options :

19088924949. 1

19088924950. 2

19088924951. 3

19088924952. 4

Question Number : 4 Question Id : 1908896265 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The translation is accomplished by the ribosome, which links proteinogenic amino acids in the following order

1. tRNA- mRNA- amino acids
2. mRNA - amino acids –tRNA
3. mRNA -tRNA- amino acids
4. amino acids –tRNA - mRNA

Options :

19088924953. 1

19088924954. 2

19088924955. 3

19088924956. 4

Question Number : 5 Question Id : 1908896266 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Read the following statements carefully:

Statement I: Dipthamide is a modified amino acid present in the elongation factor 2.

Statement II: It prevents translocation of the growing polypeptide chain.

Choose the most appropriate answer from the questions given below:

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

Options :

19088924957. 1

19088924958. 2

19088924959. 3

19088924960. 4

Question Number : 6 Question Id : 1908896267 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Read the following statements carefully:

Statement I: Signal sequence of a polypeptide chain is hydrophobic in nature.

Statement II: Signal receptor particle (SRP) binds tightly to the ribosome that is synthesizing a polypeptide chain with a signal sequence.

Choose the most appropriate answer from the options given below:

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

Options :

19088924961. 1

19088924962. 2

19088924963. 3

19088924964. 4

Question Number : 7 Question Id : 1908896268 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Currently, the fourth most abundant chemical element in the universe is

1. Hydrogen
2. Helium
3. Oxygen
4. Carbon

Options :

19088924965. 1

19088924966. 2

19088924967. 3

19088924968. 4

Question Number : 8 Question Id : 1908896269 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following structures surrounds the bacterial cell's cytoplasm and regulates the flow of substances in and out of the cell?

1. Cell wall
2. Cell capsule
3. Cell membrane
4. Cell inner membrane

Options :

19088924969. 1

19088924970. 2

19088924971. 3

19088924972. 4

Question Number : 9 Question Id : 1908896270 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is NOT among the four basic shapes of bacteria?

1. Cocci
2. Bacilli
3. Sponcilli
4. Vibrio

Options :

19088924973. 1

19088924974. 2

19088924975. 3

19088924976. 4

Question Number : 10 Question Id : 1908896271 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In bacteria, gene transfer occurs by the following processes, ***except***

1. Transduction
2. Transversion
3. Transformation
4. Conjugation

Options :

19088924977. 1

19088924978. 2

19088924979. 3

19088924980. 4

Question Number : 11 Question Id : 1908896272 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is correct regarding Plasmids?

1. Are small closed circular DNA molecules
2. Consist of single-stranded circular DNA
3. Is integral part of bacterial genome
4. Plasmid DNA are unable to transfer to other bacteria

Options :

19088924981. 1

19088924982. 2

19088924983. 3

19088924984. 4

Question Number : 12 Question Id : 1908896273 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is the heaviest particulate in a cell?

1. Nucleus
2. Mitochondria
3. Lysosomes
4. Golgi body

Options :

19088924985. 1

19088924986. 2

19088924987. 3

19088924988. 4

Question Number : 13 Question Id : 1908896274 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Human genome size is approximately

1. 1.3 billion base pairs
2. 2.3 billion base pairs
3. 3.3 billion base pairs
4. 4.3 billion base pairs

Options :

19088924989. 1

19088924990. 2

19088924991. 3

19088924992. 4

Question Number : 14 Question Id : 1908896275 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Chromosome number (2n) in mouse, Blue whale, and human, respectively are

1. 40, 44, and 46 chromosomes
2. 40, 46, and 44 chromosomes
3. 44, 40, and 46 chromosomes
4. 46, 40, and 44 chromosomes

Options :

19088924993. 1

19088924994. 2

19088924995. 3

19088924996. 4

Question Number : 15 Question Id : 1908896276 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The largest known gene is in the human being and has 79 exons spanning at least 2,300 kilobases (kb) DNA. It is

1. Dystrophin gene
2. Growth hormone gene
3. Metalloendopeptidase gene
4. Nerve Growth Factor gene

Options :

19088924997. 1

19088924998. 2

19088924999. 3

19088925000. 4

Question Number : 16 Question Id : 1908896277 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is NOT true about genes?

1. A basic unit of heredity
2. A sequence of nucleotides in DNA or RNA
3. Encodes the synthesis of either RNA or protein
4. Can not be muted naturally

Options :

19088925001. 1

19088925002. 2

19088925003. 3

19088925004. 4

Question Number : 17 Question Id : 1908896278 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In a hypothetical stage in the evolutionary history of life on Earth, which self-replicating - molecules proliferated before the evolution of all molecules?

1. RNA
2. DNA
3. Prion
4. Protein

Options :

19088925005. 1

19088925006. 2

19088925007. 3

19088925008. 4

Question Number : 18 Question Id : 1908896279 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which DNA base does NOT have any oxygen atom?

1. Adenine
2. Guanine
3. Cytosine
4. Thymine

Options :

19088925009. 1

19088925010. 2

19088925011. 3

19088925012. 4

Question Number : 19 Question Id : 1908896280 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is /not correct for Z-DNA conformation

1. The back bone having zig-zag conformation
2. Only one groove is observed
3. It cannot form nucleosome
4. Phosphate groups are far a part than that of B-DNA

Options :

19088925013. 1

19088925014. 2

19088925015. 3

19088925016. 4

Question Number : 20 Question Id : 1908896281 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which histone protein does NOT form the octamer in DNA in a cell?

1. H_1
2. H_2
3. H_3
4. H_4

Options :

19088925017. 1

19088925018. 2

19088925019. 3

19088925020. 4

Question Number : 21 Question Id : 1908896282 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Without histones, unwound DNA in chromosomes would be very long and the length of completely stretched DNA within each human cell would be-

1. 1.0 meters
2. 1.5 meters
3. 1.8 meters
4. 2.5 meters

Options :

19088925021. 1

19088925022. 2

19088925023. 3

19088925024. 4

Question Number : 22 Question Id : 1908896283 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The major difference between RNA and DNA is the presence of a hydroxyl group in the ribose sugar in RNA at-

1. 1'-position
2. 2'-position
3. 3'-position
4. 4'-position

Options :

19088925025. 1

19088925026. 2

19088925027. 3

19088925028. 4

Question Number : 23 Question Id : 1908896284 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which form of DNA is most commonly found in nature under physiological conditions?

1. A-DNA
2. B-DNA
3. C-DNA
4. Z-DNA

Options :

19088925029. 1

19088925030. 2

19088925031. 3

19088925032. 4

Question Number : 24 Question Id : 1908896285 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

What is the dimension of one complete turn of DNA sequence per 10 bp?

1. Width 13.7 Å and length 24 Å
2. Width 17.7 Å and length 30 Å
3. Width 21.7 Å and length 32 Å
4. Width 23.7 Å and length 34 Å

Options :

19088925033. 1

19088925034. 2

19088925035. 3

19088925036. 4

Question Number : 25 Question Id : 1908896286 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is NOT correct about Mitochondria?

1. Genome size is 16569 base pairs
2. The mitochondrial genome contains 37 genes that encode 13 proteins, 22 tRNAs, and 2 rRNAs
3. Humans oocyte contains the highest number of mitochondria from 100,000 to 600,000 mitochondria per cell
4. All humans have the same mitochondrial DNA

Options :

19088925037. 1

19088925038. 2

19088925039. 3

19088925040. 4

Question Number : 26 Question Id : 1908896287 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Japanese cell biologist Yoshinori Ohsumi won the Nobel Prize in Medicine in 2016 for his research on how cells recycle and renew their content, through a process called autophagy, which is related to

1. Lysosome
2. Peroxisome
3. Phagosome
4. Autosome

Options :

19088925041. 1

19088925042. 2

19088925043. 3

19088925044. 4

Question Number : 27 Question Id : 1908896288 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A chromosome with centromere near the middle is called -

1. Metacentric
2. Acrocentric
3. Telocentric
4. Submetacentric

Options :

19088925045. 1

19088925046. 2

19088925047. 3

19088925048. 4

Question Number : 28 Question Id : 1908896289 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following disease is sex-linked in human chromosome?

1. Leukaemia
2. Anaemia
3. Malignancy
4. Colour blindness

Options :

19088925049. 1

19088925050. 2

19088925051. 3

19088925052. 4

Question Number : 29 Question Id : 1908896290 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The pH of animal cell tissue culture is usually -

1. pH 6.4
2. pH 7.4
3. pH 8.4
4. pH 9.4

Options :

19088925053. 1

19088925054. 2

19088925055. 3

19088925056. 4

Question Number : 30 Question Id : 1908896291 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In the cell cycle the nuclear DNA replicates in the -

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

Options :

19088925057. 1

19088925058. 2

19088925059. 3

19088925060. 4

Question Number : 31 Question Id : 1908896292 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which type of Inhibition is most noticeable at low substrate concentration, and can be overcome by higher substrate concentration?

1. Noncompetitive inhibition
2. Competitive inhibition
3. Suicidal inhibition
4. Uncompetitive inhibition

Options :

19088925061. 1

19088925062. 2

19088925063. 3

19088925064. 4

Question Number : 32 Question Id : 1908896293 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In a reaction mixture of enzyme keeping the enzyme concentration and other conditions constant only substrate concentration is changed. The enzyme activity to corresponding substrate concentrations are given below

Substrate concentration in mM	Enzyme activity in IU
2	1
5	2.5
10	5
15	6
20	8

On the basis of the above observation table, the second-order reaction started after the first-order reaction occurred up to a substrate concentration of -

1. 2 mM
2. 5 mM
3. 10 mM
4. 15 mM

Options :

19088925065. 1

19088925066. 2

19088925067. 3

19088925068. 4

Question Number : 33 Question Id : 1908896294 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Following are the data of substrate concentration and the corresponding velocity of an enzyme

Substrate concentration in mM	Enzyme velocity in IU
10	10
30	20
60	30
100	40
120	50
160	58
220	80
250	80

On the basis of the above data, Km value of the enzyme is -

1. 60 mM
2. 100 mM
3. 120 mM
4. 200 mM

Options :

19088925069. 1

19088925070. 2

19088925071. 3

19088925072. 4

Question Number : 34 Question Id : 1908896295 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are the statements of an enzyme action

Statement I: The binding site on the enzyme is known as the active site and is structurally complementary to the substrate

Statement II: Binding of a substrate to an enzyme active site causes a change in the three-dimensional structure of the enzyme which helps to reduce the activation energy of the reaction.

In 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 :

19088925073. 1

19088925074. 2

19088925075. 3

19088925076. 4

Question Number : 35 Question Id : 1908896296 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statements are correct for the Kcat?

A. It is also called turnover number

B. Specificity constant of an enzyme can be calculated from its Kcat and Km

C. Kcat is calculated from the Vmax and number of substrate binding site of an enzyme

D. It can also be calculated from initial substrate concentration and enzyme concentration only

Choose the ***correct*** answer from the options given below:

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

Options :

19088925077. 1

19088925078. 2

19088925079. 3

19088925080. 4

Question Number : 36 Question Id : 1908896297 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If the Vmax of an enzyme is 10 IU and its Km is 20 mM then Lineweaver Burk plot of this enzyme follows a slope of

1. 2.0
2. 1.0
3. 0.5
4. 0.25

Options :

19088925081. 1

19088925082. 2

19088925083. 3

19088925084. 4

Question Number : 37 Question Id : 1908896298 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following are true for an enzyme?

A. Enzyme can not change the equilibrium constant of a reaction

B. The unique physical and chemical properties of the active site limit an enzyme's activity to a specific substrate

C. Enzyme may require metallic ion and organic cofactor for their functioning for their proper functioning

D. pH of the reaction mixture does not affect the enzyme activity,

Choose the *correct* answer from the options given below:

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

Options :

19088925085. 1

19088925086. 2

19088925087. 3

19088925088. 4

Question Number : 38 Question Id : 1908896299 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statements are correct for pyrimidine deoxyribonucleotides?

A. Nitrogen 1(N1)of a pyrimidine base is attached to C$^{/}$1 of D-ribose present in the pyrimidine deoxyribonucleotides

B. C$^{/}$5of a pyrimidine deoxyribonucleosides may attach to one or more phosphate group

C. Base preset in pyrimidine deoxyribonucleotide is always complementary to a purine base present in a double-stranded DNA

D. Pyrimidine deoxyribonucleotides are joined together through a phosphodiester bond to form DNA strand

Choose the *correct* answer from the options given below:

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

Options :

19088925089. 1

19088925090. 2

19088925091. 3

19088925092. 4

Question Number : 39 Question Id : 1908896300 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following are correct for proline?

A. It is also called imino acid

B. Its "R"-Group (Side chain) is a hydrogen atom

C. Incorporation of proline inhelical structure disrupts the α-helical structure

D. It contains a free α-carboxylic acid group and a free α-amino group

Choose the ***correct*** answer from the options given below:

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

Options :

19088925093. 1

19088925094. 2

19088925095. 3

19088925096. 4

Question Number : 40 Question Id : 1908896301 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Arrange the product produced in glycolysis serially as they are produced in the glycolytic cycle.

A. 1,3 bisphosphoglycerate

B. 2 phosphoglycerate

C. 3 phosphoglycerate

D. phosphoenol pyruvate

Choose the ***correct*** answer from the options given below

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

Options :

19088925097. 1

19088925098. 2

19088925099. 3

19088925100. 4

Question Number : 41 Question Id : 1908896302 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II.**

List I **(Major class of enzyme)**	**List II** **(Reaction they catalyze)**
A. 1	I. Transfer of functional group to water
B. 2	II. Oxidation-reduction
C. 3	III. Group transfer
D. 4	IV. Addition or removal of group to form a double bond

Choose the **correct** answer from the options given below:

1. A - I, B - II, C - III, D - IV
2. A - II, B - III, C - I, D - IV
3. A - III, B - II, C - I, D - IV
4. A - IV, B - III, C - II, D - I

Options :

19088925101. 1

19088925102. 2

19088925103. 3

19088925104. 4

Question Number : 42 Question Id : 1908896303 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

which of the following fatty acids is an omega (ω)-3 fatty acid?

1. 18:3 ($\Delta^{3,9,12}$)
2. 18:1 (Δ^{9})
3. 18:2 ($\Delta^{9,12}$)
4. 18:3 ($\Delta^{9,12,15}$)

Options :

19088925105. 1

19088925106. 2

19088925107. 3

19088925108. 4

Question Number : 43 Question Id : 1908896304 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statements about naturally found waxes are true?

A. Biological waxes are ester of short chain saturated and unsaturated fatty acids

B. Biological waxes contain a long chain alcohol in their structure

C. Melting temperature of waxes are generally higher than triglycerides

D. Certain skin glands of vertebrates secret waxes to protect hair and skin and to keep it pliable

Choose the *correct* answer from the options given below:

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

Options :

19088925109. 1

19088925110. 2

19088925111. 3

19088925112. 4

Question Number : 44 Question Id : 1908896305 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The reactions which take place in mammalian mitochondria are

A. β - Oxidation of fatty acid

B. All the reactions of glycolytic cycle

C. All the reaction of urea cycle

D. TCA (tricarboxylic acid) cycle

Choose the *correct* answer from the options given below:

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

Options :

19088925113. 1

19088925114. 2

19088925115. 3

19088925116. 4

Question Number : 45 Question Id : 1908896306 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statements are true for Edman degradation?

A. It is a method used for the determination of the primary structure of a protein

B. In this method only the amino-terminal amino acid of a peptide is labeled and removed

C. Ninhydrin is used to label the terminal amino acid

D. Phenyl isothiocyanate is used in the Edman reagent

Choose the *correct* answer from the options given below:

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

Options :

19088925117. 1

19088925118. 2

19088925119. 3

19088925120. 4

Question Number : 46 Question Id : 1908896307 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Ala-Val-Gly-Val-Met-Try-Lys-Ala-Glu-Ala-Arg-Ala-Val-Try-Gly-His-Gly is the amino acid sequence of a peptide. If this peptide is treated with enzyme trypsin in a proper reaction condition then the maximum number of the smaller peptides that could be produced is -

1. 2
2. 3
3. 4
4. 5

Options :

19088925121. 1

19088925122. 2

19088925123. 3

19088925124. 4

Question Number : 47 Question Id : 1908896308 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If a globular protein is present in a nonpolar solvent then the surface of the protein contain amino acids with

A. Polar side chain

B. Nonpolar side chain

C. Polar but uncharged side chain

Choose the *correct* answer from the options given below:

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

Options :

19088925125. 1

19088925126. 2

19088925127. 3

19088925128. 4

Question Number : 48 Question Id : 1908896309 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

If the isoelectric pH of a protein is 3.2 then in a solution of pH 7.4 it will be in a

1. positively charged form
2. negatively charged form
3. Zwitterionic form
4. form immovable in the electric field

Options :

19088925129. 1

19088925130. 2

19088925131. 3

19088925132. 4

Question Number : 49 Question Id : 1908896310 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statements are correct for the denaturation of protein?

A. Many proteins are denatured with change in pH

B. Many proteins are denatured with change in temperature

C. Many proteins are denatured by contact with the glass and plastic surface

D. Denaturation is a completely irreversible process

Choose the ***correct*** answer from the options given below:

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

Options :

19088925133. 1

19088925134. 2

19088925135. 3

19088925136. 4

Question Number : 50 Question Id : 1908896311 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statements are true for globular proteins?

A. Polypeptide chains are folded into a spherical shape

B. Globular proteins often contain single type of secondary structure

C. Most of the naturally occurring enzymes are globular protein

D. Most of the regulatory proteins are globular protein in nature

Choose the ***correct*** answer from the options given below:

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

Options :

19088925137. 1

19088925138. 2

19088925139. 3

19088925140. 4

Question Number : 51 Question Id : 1908896312 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is an example of polyhydroxy aldehyde?

1. D- Talose
2. D-Ribulose
3. D-Erythrulose
4. D-Sorbose

Options :

19088925141. 1

19088925142. 2

19088925143. 3

19088925144. 4

Question Number : 52 Question Id : 1908896313 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The members of which of the following pair are epimer to each other?

1. D-Ribose and D-Xylose
2. D-Glucose and L Glucose
3. D-Galactose and D-Mannose
4. D-Altrose and D-Galactose

Options :

19088925145. 1

19088925146. 2

19088925147. 3

19088925148. 4

Question Number : 53 Question Id : 1908896314 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is a negatively charged sugar or sugar derivative?

1. β-D Galactosamine
2. N-Acetylmuramic acid
3. β-D Mannosamine
4. D-Gluconate

Options :

19088925149. 1

19088925150. 2

19088925151. 3

19088925152. 4

Question Number : 54 Question Id : 1908896315 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statements are true for ω (omega) oxidation of fatty acids in mammalian tissue?

A. Introduces a hydroxyl group on to ω (omega) carbon in the first step of ω (omega) oxidation

B. ω-Oxidation occurs in mitochondrial matrix

C. ω-Oxidation is a minor pathway for fatty acid oxidation in normal mammalian cell

Choose the *correct* answer from the options given below:

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

Options :

19088925153. 1

19088925154. 2

19088925155. 3

19088925156. 4

Question Number : 55 Question Id : 1908896316 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The enzymes that catalyze the forward reaction in the glycolytic pathway are

A. Phosphofructokinase

B. Haexokinase

C. Phosphoglyceratekinase

D. Pyruvatekinase

Choose the *correct* answer from the options given below:

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

Options :

19088925157. 1

19088925158. 2

19088925159. 3

19088925160. 4

Question Number : 56 Question Id : 1908896317 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following enzymes require thymine pyrophosphate as a coenzyme for their activity?

A. Pyruvate decarboxylase

B. Pyruvate dehydrogenase

C. Transketolase

D. Malate dehydrogenase

Choose the *correct* answer from the options given below:

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

Options :

19088925161. 1

19088925162. 2

19088925163. 3

19088925164. 4

Question Number : 57 Question Id : 1908896318 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In a fed state when blood glucose concentration is high then

Statement I: Glucokinase phosphorylate glucose molecule in the hepatic cell but not in the condition when blood glucose concentration is normal as its has a high Km value

Statement II: Activity of hexokinase enzyme is decreased as most of the enzyme is in the form of enzyme-substrate complex

In 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 :

19088925165. 1

19088925166. 2

19088925167. 3

19088925168. 4

Question Number : 58 Question Id : 1908896319 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In β-Oxidation, β-Ketoacyl-CoA dehydrogenase catalyzes which of the following reactions?

1. Palmitoyl CoA → trans Δ 2 Enoyl CoA
2. trans Δ 2 Enoyl CoA → β-Hydroxy acyl CoA
3. β-Hydroxy acyl CoA → β- Keto acyl CoA
4. β- Keto acyl CoA → Acyl CoA

Options :

19088925169. 1

19088925170. 2

19088925171. 3

19088925172. 4

Question Number : 59 Question Id : 1908896320 Question Type : MCQ Op

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

When a molecule of palmitic acid is metabolized through β-oxidation then it produces

1. Seven molecules of acetyl CoA
2. Eight molecules of acetyl CoA
3. Nine molecules of acetyl CoA
4. Ten molecules of acetyl CoA

Options :

19088925173. 1

19088925174. 2

19088925175. 3

19088925176. 4

Question Number : 60 Question Id : 1908896321 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Carnitine acylcarnitine translocase is present in

1. Outer mitochondrial membrane
2. Inner mitochondrial membrane
3. Inter membrane space of mitochondria
4. Mitochondrial matrix

Options :

19088925177. 1

19088925178. 2

19088925179. 3

19088925180. 4

Question Number : 61 Question Id : 1908896322 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Retinol is oxidized to retinal, which is

1. An Aldehyde
2. A Ketone
3. An Organic acid
4. An organic base

Options :

19088925181. 1

19088925182. 2

19088925183. 3

19088925184. 4

Question Number : 62 Question Id : 1908896323 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Coenzymes are converted form of

1. Carbohydrates
2. Water-soluble vitamins
3. Fat soluble vitamins
4. Non-essential amino acids

Options :

19088925185. 1

19088925186. 2

19088925187. 3

19088925188. 4

Question Number : 63 Question Id : 1908896324 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is the precursor of coenzyme that participates in one carbon group transfer in purine synthesis?

1. Biotin
2. Cobalamine
3. Thiamine
4. Folic acid

Options :

19088925189. 1

19088925190. 2

19088925191. 3

19088925192. 4

Question Number : 64 Question Id : 1908896325 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Rosalyn Yalow is associated with

1. RRA
2. ELISA
3. RIA
4. RTPCR

Options :

19088925193. 1

19088925194. 2

19088925195. 3

19088925196. 4

Question Number : 65 Question Id : 1908896326 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Alpha adrenergic receptor is blocked by

1. Isoproterenol
2. Propranolol
3. Phentolamine
4. Somatostatin

Options :

19088925197. 1

19088925198. 2

19088925199. 3

19088925200. 4

Question Number : 66 Question Id : 1908896327 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In adipose tissue the increased lipogenesis is the hormonal effect of

1. Insulin
2. Glucagon
3. Epinephrine
4. Growth hormone

Options :

19088925201. 1

19088925202. 2

19088925203. 3

19088925204. 4

Question Number : 67 Question Id : 1908896328 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A muscle's respiration rate may increase in response to heavy workload by

1. 2 times
2. 25-fold
3. 250 fold
4. No change

Options :

19088925205. 1

19088925206. 2

19088925207. 3

19088925208. 4

Question Number : 68 Question Id : 1908896329 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Name the respiratory reaction in which production of reduced coenzymes, and then its reoxidation, drives ATP synthesis.

1. Oxidative phosphorylation
2. Amino acid degradation
3. Fatty acid oxidation
4. The citric acid cycle

Options :

19088925209. 1

19088925210. 2

19088925211. 3

19088925212. 4

Question Number : 69 Question Id : 1908896330 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Pyruvate dehydrogenase is located in

1. Mitochondria
2. Nucleus
3. Ribosome
4. Endoplasmic reticulum

Options :

19088925213. 1

19088925214. 2

19088925215. 3

19088925216. 4

Question Number : 70 Question Id : 1908896331 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Binding of oxygen to myoglobin facilitates its-

1. Absorption
2. Diffusion
3. Metabolism
4. Saturation

Options :

19088925217. 1

19088925218. 2

19088925219. 3

19088925220. 4

Question Number : 71 Question Id : 1908896332 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Hemoglobin is a tetramer with how many conformations?

1. 4
2. 6
3. 1
4. 2

Options :

19088925221. 1

19088925222. 2

19088925223. 3

19088925224. 4

Question Number : 72 Question Id : 1908896333 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

As per Bohr effect

1. Increase in pH adds proton, this stimulates hemoglobin to bind more oxygen
2. Increase in pH removes proton, this stimulates hemoglobin to bind less oxygen
3. Increase in pH removes proton, this stimulates hemoglobin to bind more oxygen
4. Decrease in pH removes proton, this stimulates hemoglobin to bind more oxygen

Options :

19088925225. 1

19088925226. 2

19088925227. 3

19088925228. 4

Question Number : 73 Question Id : 1908896334 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Water molecules dissociate to form H^+ and OH^- ions at 25°C temperature, with a dissociation constant of

1. 10^{-4}
2. 10^{-40}
3. 10^{-14}
4. 10^{-24}

Options :

19088925229. 1

19088925230. 2

19088925231. 3

19088925232. 4

Question Number : 74 Question Id : 1908896335 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Aldosterone is a compound with

1. C21
2. C11
3. C17
4. C19

Options :

19088925233. 1

19088925234. 2

19088925235. 3

19088925236. 4

Question Number : 75 Question Id : 1908896336 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The target tissue of parathormone is

1. Kidney
2. Adrenal Cortex
3. Bones
4. Thyroid gland

Options :

19088925237. 1

19088925238. 2

19088925239. 3

19088925240. 4

Question Number : 76 Question Id : 1908896337 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Read the given statements carefully:

Statement I: G-protein coupled receptors (GPCRs) are transmembrane proteins

Statement II: Binding of specific hormones to their corresponding GPCRs on their extracellular side induces conformational change on their cytoplasmic side.

Choose the most appropriate answer from the options given below:

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

Options :

19088925241. 1

19088925242. 2

19088925243. 3

19088925244. 4

Question Number : 77 Question Id : 1908896338 Question Type : MCQ Op

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Plasma Osmolality = ---------- x Plasma Na + (mmol/L) + glucose (mg/dL) /18 + BUN (mg/dL) /2.8

Fill in the blank with the appropriate option.

1. 2
2. 12
3. 20
4. 5

Options :

19088925245. 1

19088925246. 2

19088925247. 3

19088925248. 4

Question Number : 78 Question Id : 1908896339 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In a normal cow, the Ca content of blood is 2-3 millimol (mM), whereas that of milk is 25-30 mM and that of colostrum is

1. 6-7 mM.
2. 62-75 mM.
3. 40-50 mM.
4. 15-30 mM.

Options :

19088925249. 1

19088925250. 2

19088925251. 3

19088925252. 4

Question Number : 79 Question Id : 1908896340 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Temporary hypocalcaemia may NOT occur in high yielding cattle and buffalo, due to

1. Cereal rations
2. Vitamin D deficiency
3. Wide difference in dietary calcium & phosphorous level
4. Rickets

Options :

19088925253. 1

19088925254. 2

19088925255. 3

19088925256. 4

Question Number : 80 Question Id : 1908896341 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Sheep which are fed on excessive calcium and phosphorus rich diet may show loss of wool with thick wrinkled skin on account of

1. Na deficiency
2. Protein deficiency
3. Zn deficiency
4. Cu deficiency

Options :

19088925257. 1

19088925258. 2

19088925259. 3

19088925260. 4

Question Number : 81 Question Id : 1908896342 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Cobalt deficiency is associated with deficiency of vitamin B12 in ruminants and causes

1. Increased copper retention in the liver.
2. Decreased cobalt retention in the liver.
3. Decreased copper retention in the liver.
4. Increased cobalt retention in the liver.

Options :

19088925261. 1

19088925262. 2

19088925263. 3

19088925264. 4

Question Number : 82 Question Id : 1908896343 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Cows and ewes are kept on low calcium feed, late in pregnancy, to prevent

1. Milk fever
2. Retention of placenta
3. Post parturient mastitis
4. Lameness

Options :

19088925265. 1

19088925266. 2

19088925267. 3

19088925268. 4

Question Number : 83 Question Id : 1908896344 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Treatment of pregnancy toxemia/ketosis aims at boosting blood

1. Lipid level
2. Glucose levels
3. Calcium level
4. Escape Protein level

Options :

19088925269. 1

19088925270. 2

19088925271. 3

19088925272. 4

Question Number : 84 Question Id : 1908896345 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Cows which were heavily fed in early pregnancy, but suffer severe nutritional stress during the 2 months before calving may suffer metabolic disorder called

1. Downer's cow
2. Milk fever
3. Osteoporosis
4. Fat cow syndrome

Options :

19088925273. 1

19088925274. 2

19088925275. 3

19088925276. 4

Question Number : 85 Question Id : 1908896346 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Disorder of ruminal fermentation that is characterized by extended periods of depressed ruminal pH below 5.5-5.6 is termed as

1. Sub Acute Rumen Acidosis (SARA)
2. Lactacidosis
3. Ketoacidosis
4. Impaction

Options :

19088925277. 1

19088925278. 2

19088925279. 3

19088925280. 4

Question Number : 86 Question Id : 1908896347 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Hormone(s) derived from the amino acid tyrosine is/are

1. Insulin
2. Thyroid hormones and catecholamines
3. Melatonin
4. Glandins and prostaglandin

Options :

19088925281. 1

19088925282. 2

19088925283. 3

19088925284. 4

Question Number : 87 Question Id : 1908896348 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Steroid hormone biosynthesis does NOT involve

1. Specific cytochrome P450 enzymes (CYPs),
2. Hydroxysteroid dehydrogenases (HSDs),
3. Steroid reductases
4. Peptidyl transferase

Options :

19088925285. 1

19088925286. 2

19088925287. 3

19088925288. 4

Question Number : 88 Question Id : 1908896349 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Pregnenolone and progesterone form the precursors for all ***except***

1. Vitamin D
2. Protein hormone
3. Steroid hormones
4. Eicosanoids

Options :

19088925289. 1

19088925290. 2

19088925291. 3

19088925292. 4

Question Number : 89 Question Id : 1908896350 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Organotin compounds, the toxins from industry/agriculture/paint, may cause endocrine disruptive effects by inhibiting aromatase activity such as

1. Short stature
2. Bent bones
3. Imposex (development of penis in female mollusks)
4. Alopecia

Options :

19088925293. 1

19088925294. 2

19088925295. 3

19088925296. 4

Question Number : 90 Question Id : 1908896351 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

cAMP is NOT a second messenger for

1. Nitric oxide
2. Epinephrine
3. Glucagon
4. FSH

Options :

19088925297. 1

19088925298. 2

19088925299. 3

19088925300. 4

Question Number : 91 Question Id : 1908896352 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statement about the tails of the histone molecules is NOT true?

1. N-terminal extension
2. Lack defined structure
3. Site for extensive modifications
4. Requied for the association of nucleosome

Options :

19088925301. 1

19088925302. 2

19088925303. 3

19088925304. 4

Question Number : 92 Question Id : 1908896353 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statements about the 'Klenow fragment' of DNA polymerase-I is correct?

1. Posseses 5'→ 3' exonuclease activity
2. Main function is to synthesize the leading strand of DNA
3. They join the Okazaki fragments
4. Posseses 3'→5' exonuclease activity

Options :

19088925305. 1

19088925306. 2

19088925307. 3

19088925308. 4

Question Number : 93 Question Id : 1908896354 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The scientists who won the Nobel prize in Physiology medicine in 1965 for their work on lac operon were:

1. Francois Jacob and Jacques Monod
2. Author Konberg and Marshall Nirenberg
3. Samuel Weiss and Jerard Hurwitz
4. Marshall Nirenberg and John Cairns

Options :

19088925309. 1

19088925310. 2

19088925311. 3

19088925312. 4

Question Number : 94 Question Id : 1908896355 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Degeneracy of genetic code means that:

1. Genetic code is not universal
2. An amino acid may be coded by more than one codon
3. Each codon may code for more than one amino acid
4. Each organism has different genetic code

Options :

19088925313. 1

19088925314. 2

19088925315. 3

19088925316. 4

Question Number : 95 Question Id : 1908896356 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The enzymatic activity that catalyzes peptide bond formation during protein biosynthesis is caused by:

1. 23s rRNA
2. Aminoacyl transferase
3. Elongation factor EF-Tu
4. 16s rRNA

Options :

19088925317. 1

19088925318. 2

19088925319. 3

19088925320. 4

Question Number : 96 Question Id : 1908896357 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

PCR efficiency is affected by all of the following ***except:***

1. Primer length
2. Length of target sequence
3. Primer sequence
4. AT rich sequence

Options :

19088925321. 1

19088925322. 2

19088925323. 3

19088925324. 4

Question Number : 97 Question Id : 1908896358 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is NOT a suspension culture?

1. Batch culture
2. Fed batch culture
3. Perfusion culture
4. Discountinous Flow Culture

Options :

19088925325. 1

19088925326. 2

19088925327. 3

19088925328. 4

Question Number : 98 Question Id : 1908896359 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The enzyme most commonly used to labell antibody in immunoassay is:

1. Alkaline phosphatase
2. β- Galactosidase
3. Horse radish peroxidase
4. Lacto peroxidase

Options :

19088925329. 1

19088925330. 2

19088925331. 3

19088925332. 4

Question Number : 99 Question Id : 1908896360 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The enzyme use in Sanger's DNA sequencing method is:

1. DNA Polymerase I
2. DNA polymerase-II
3. DNA polymerase -III
4. RNA plymerase

Options :

19088925333. 1

19088925334. 2

19088925335. 3

19088925336. 4

Question Number : 100 Question Id : 1908896361 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which technique involves fertilization outside the body of the female?

1. Intrauterine fertilization
2. *In vitro* fertilization
3. *In vivo* fertilization
4. *Ex vivo* fertilization

Options :

19088925337. 1

19088925338. 2

19088925339. 3

19088925340. 4

Question Number : 101 Question Id : 1908896362 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Subunit vaccine is all, except

1. A purified part or pieces of the antigen
2. A whole purified virus
3. An expensive type of vaccine
4. A Hepatitis-B vaccine

Options :

19088925341. 1

19088925342. 2

19088925343. 3

19088925344. 4

Question Number : 102 Question Id : 1908896363 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The cells that retain their proliferative capacity throughout life are regarded as:

1. Primary cell culture
2. Secondary cell culture
3. Stem cells
4. Tertiary cell culture

Options :

19088925345. 1

19088925346. 2

19088925347. 3

19088925348. 4

Question Number : 103 Question Id : 1908896364 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Southern blotting is a technique for identification of:

1. DNA
2. RNA
3. Proteins
4. Carbohydrates

Options :

19088925349. 1

19088925350. 2

19088925351. 3

19088925352. 4

Question Number : 104 Question Id : 1908896365 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statements about Primosome, which is required for primer synthesis during DNA replication in *E.coli* is NOT correct?

1. Includes Dna B helicase
2. Includes RNA synthesizing primase called DnaG
3. Required to synthesize primers only in the leading strand
4. Propelled in the 5'→ 3' direction along the DNA template

Options :

19088925353. 1

19088925354. 2

19088925355. 3

19088925356. 4

Question Number : 105 Question Id : 1908896366 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Error rate of transcription is higher than that of chromosomal DNA replication because

1. RNA polymerase lacks separate proofreading, 3'→5' exonuclease activity
2. RNA synthesis occurs without Watson-Crick base pairing
3. RNA polymerase is much bigger in size than DNA polymerase
4. Nucleotide addition rate of RNA polymerase is 10 times more than DNA polymerase

Options :

19088925357. 1

19088925358. 2

19088925359. 3

19088925360. 4

Question Number : 106 Question Id : 1908896367 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following codon does NOT terminate protein biosynthesis?

1. UAA
2. UAG
3. UGA
4. AUG

Options :

19088925361. 1

19088925362. 2

19088925363. 3

19088925364. 4

Question Number : 107 Question Id : 1908896368 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Tetracycline inhibits protein synthesis in bacteria by blocking:

1. A-site on the ribosome
2. P-Site on the ribosome
3. Peptidase transferase activity
4. E-site on the ribosome

Options :

19088925365. 1

19088925366. 2

19088925367. 3

19088925368. 4

Question Number : 108 Question Id : 1908896369 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Presence of adequate amount of glucose in medium prevents the full expression of genes specifying proteins involved in fermentation of other metabolites in E.coli. This phenomenon is called:

1. Catabolic repression
2. Anabolic repression
3. Catabolic induction
4. Anabolic induction

Options :

19088925369. 1

19088925370. 2

19088925371. 3

19088925372. 4

Question Number : 109 Question Id : 1908896370 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Rapid Amplification of cDNA end (RACE) is a modification of

1. Anchored PCR
2. Touchdown PCR
3. Reverse transcription PCR (RT-PCR)
4. Hotstart PCR

Options :

19088925373. 1

19088925374. 2

19088925375. 3

19088925376. 4

Question Number : 110 Question Id : 1908896371 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which glycoprotein promotes attachment of cells to the substrate?

1. Collagen
2. Fibronectin
3. Transferrin
4. FGF

Options :

19088925377. 1

19088925378. 2

19088925379. 3

19088925380. 4

Question Number : 111 Question Id : 1908896372 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The vaccines prepared through recombinant DNA technology are

1. Third generation vaccines
2. First-generation vaccines
3. Second generation vaccines
4. Conventional attenuated vaccines

Options :

19088925381. 1

19088925382. 2

19088925383. 3

19088925384. 4

Question Number : 112 Question Id : 1908896373 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following does NOT require a primer in order to function?

1. DNA Pol I
2. DNA Pol II
3. RNA polymerase
4. Reverse transcriptase

Options :

19088925385. 1

19088925386. 2

19088925387. 3

19088925388. 4

Question Number : 113 Question Id : 1908896374 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The structural 'Z' gene of lactose (lac) operon is responsible for the synthesis of the enzyme(s)

1. β–Galactosidase
2. Permease
3. Acetylase
4. Helicase

Options :

19088925389. 1

19088925390. 2

19088925391. 3

19088925392. 4

Question Number : 114 Question Id : 1908896375 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The DNA in the chromatin is very tightly associated with proteins called histones which package and order the DNA into structural units called

1. Euchromatin
2. Nucleosomes
3. Ribosomes
4. Supercoiled DNAs

Options :

19088925393. 1

19088925394. 2

19088925395. 3

19088925396. 4

Question Number : 115 Question Id : 1908896376 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statement about DNA polymerase III is NOT correct?

1. Possesses 5'→3' polymerase activity
2. Have a polymerization rate of 250-1000 nts/sec
3. Possesses 3'→5' exonuclease activity
4. Possesses 5'→3' exonuclease activity

Options :

19088925397. 1

19088925398. 2

19088925399. 3

19088925400. 4

Question Number : 116 Question Id : 1908896377 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

DNA fingerprinting is based on the presence in DNA of:

1. Constant number of tandem repeats
2. Non-repetitive sequences in each DNA
3. Variable number of tandem repeats
4. Introns in eukaryotic DNA

Options :

19088925401. 1

19088925402. 2

19088925403. 3

19088925404. 4

Question Number : 117 Question Id : 1908896378 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Self splicing of introns was revealed by

1. Thomas Cech and colleagues
2. David Baltimore
3. Howard Temin
4. Paul Zamecnik and colleagues

Options :

19088925405. 1

19088925406. 2

19088925407. 3

19088925408. 4

Question Number : 118 Question Id : 1908896379 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The function of Shine-Dalgarno Sequence is

1. To guide initiating AUG codon to its correct position
2. Proper alignment of small and large ribosomal subunits
3. Initiating the catalytic activity of peptidyl transferase
4. Positioning of f-Met-tRNA to P-site of ribosomes

Options :

19088925409. 1

19088925410. 2

19088925411. 3

19088925412. 4

Question Number : 119 Question Id : 1908896380 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The Radioallergosorbent Test (RAST) measures:

1. IgG antibodies
2. IgM antibodies
3. Antigen concentration
4. IgE antibodies

Options :

19088925413. 1

19088925414. 2

19088925415. 3

19088925416. 4

Question Number : 120 Question Id : 1908896381 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A stem cell transplant using a patient's own stem cells is described as

1. Syngenic
2. Autologous
3. Allogeneic
4. Homologous

Options :

19088925417. 1

19088925418. 2

19088925419. 3

19088925420. 4