परीक्षेचे नांव : सहायक प्राध्यापक, जैवीकतंत्रज्ञान, महाराष्ट्र शिक्षण सेवा (महाविद्यालयीन शाखा), गट-अ

परीक्षेचा दिनांक : ९ फेब्रुवारी, २०१४

महाराष्ट्र लोकसेवा आयोगामार्फत "सहायक प्राध्यापक, जैवीकतंत्रज्ञान, महाराष्ट्र शिक्षण सेवा, (महाविद्यालयीन शाखा), गट-अ" या परीक्षेच्या प्रश्नपत्रिकेची उत्तरतालिका उमदेवारांच्या माहितीसाठी संकेतस्थळावर प्रसिध्द करण्यात आली आहे. सदर उत्तरतालिकेतील प्रश्न-उत्तरासंबंधी उमेदवारांना निवेदन करावयाचे असल्यास त्यांनी अधिप्रमाणीत स्पष्टीकरण / संदर्भ देऊन तसेच विषय, परीक्षेचे नाव, प्रश्नसंच, प्रश्नक्रमांक यांच्या उल्लेखासह आपले लेखी निवेदन उपसचिव (गोपनीय), महाराष्ट्र लोकसेवा आयोग, बँक ऑफ इंडिया बिल्डींग, ३ रा मजला, हुतात्मा चौक, मुंबई ४०० ००१ या पत्त्यावर टपालाने पाठवावे. यासंदर्भात दिनांक २१ फेब्रुवारी, २०१४ पर्यन्त आयोगाकडे प्राप्त झालेल्या निवेदनांचीच दखल घेतली जाईल. तद्नंतर आलेली निवेदने विचारात घेतली जाणार नाहीत, याची कृपया नोंद घ्यावी.

MPSC

Notations:

1. Options shown in green color are correct.
2. Options shown in red color are incorrect.

Group A

Number of optional sections to be attempted: 0, Group Maximum duration : 0, Group Minimum duration : 60, Revisit allowed for view? : No, Revisit allowed for edit? : No, Break time: 0

Assistant Professor Bio Technology

Section type : Online, Number of Questions to be attempted:100, Mandatory or Optional: Mandatory

Subsection : 1, Question Shuffling Allowed : Yes

Question id : 3903 Question Type : MCQ
The strong conclusion from Anfinsen's work on RNaseA was that:

Options :

1. 100% enzyme activity corresponds to the native conformation
2. disulfide bonds (S-S) in proteins can be reduced in vitro
3. Cys-SH groups are not found in vivo
4. the native conformation of a protein is adopted spontaneously

Question id : 3904 Question Type : MCQ
Which of the following is most correct?

Options :

1. Charged amino acids are never buried in the interior of a protein.
2. Charged amino acids are seldom buried in the interior of a protein.
3. All hydrophobic amino acids are buried when a protein folds.
4. Tyrosine is only found in the interior of proteins.

Question id : 3905 Question Type : MCQ
Which of the following statements is true about peptide bond

Options :

1. It is non-planar
2. It is capable of forming hydrogen bond
3. The cis configuration is favoured over trans-conformaion
4. Single bond rotation is permitted between nitrogen and carbonyl group

Question id : 3906 Question Type : MCQ

Protein motifs are considered a type of

Options :

1. primary structure.
2. secondary structure.
3. tertiary structure.
4. quaternary structure.

Question id : 3907 Question Type : MCQ

Which of the following carbohydrates is associated with plants?

Options :

1. glycogen
2. amylopectin
3. chitin
4. levo-glucose

Question id : 3908 Question Type : MCQ

The tertiary structure of a protein refers to the:

Options :

1. Sequence of amino acids
2. Presence of alpha-helices or beta-sheets
3. Unique three dimensional folding of the molecule
4. Interactions of a protein with other subunits of enzymes

Question id : 3909 Question Type : MCQ

A motif is best described as?

Options :

1. Specific combinations of secondary structures that occur in a number of types of proteins
2. Combinations of secondary structures that occur in only one enzyme from different species
3. A specific primary sequence that occur in a number of types of proteins
4. A structural domain

Question id : 3910 Question Type : MCQ

If we say that two proteins are homologous, we are saying that they

Options :

1. Probably derived from different ancestral genes
2. Their tertiary structures would look dissimilar
3. They probably have the same number and types of secondary structures oriented in the same way in space
4. Their primary sequences would be 99% similar

Question id : 3911 Question Type : MCQ

Which of the following is a microfilament inhibitor

Options :

1. Aspirine
2. Cinchonine
3. Colchicine
4. Cytochalasin B

Question id : 3912 Question Type : MCQ

Microfilament are made up of

Options :

1. Actin
2. Tubulin and Actin
3. Desmin
4. Vimetin

Question id : 3913 Question Type : MCQ

Molecular chaperones function by

Options :

1. Providing protective environment in which protein can fold
2. Degrading protein that have folded improperly
3. Providing template for how the protein should fold
4. Rescuing the protein that folded incorrectly and allowing them to refold properly

Question id : 3914 Question Type : MCQ

Which force is the main driving force for the formation of tertiary structures in proteins

Options :

1. Hydrogen bonding
2. Electrostatic intraction
3. van Der Waals interaction
4. Hydrophobic interaction

Question id : 3915 Question Type : MCQ

A protein can be unfolded by a process called

Options :

1. Renaturation
2. Denaturation
3. Oxidation
4. Reduction

Question id : 3916 Question Type : MCQ

Telomerase are usually rich in which nucleotide ?

Options :

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

Question id : 3917 Question Type : MCQ

DNA gyrase in E.Coli

Options :

1. Adds positive supercolils to chromosomal DNA
2. Can be inhibited by antibiotics
3. Is required only at the OriC site
4. Performs the same function as helicase in eukaryotes

Question id : 3918 Question Type : MCQ

What is the only common methylation in the DNA of eukaryotes

Options :

1. Adenosine in GpA dinucleotides
2. Guanosine in ApGpA trinucleotides
3. Cytosine in CpG dinucleotides
4. None

Question id : 3919 Question Type : MCQ

What is the approximate size (in kb) of the E. coli genome?

Options :

1. 3000 kilobase
2. 4500 kilobase
3. 5500 kilobase
4. 6500 kilobase

Question id : 3920 Question Type : MCQ

In the study of one experiment it was found that the value of Tm for DNA is = 40° C. If the cell has 20% GC at

the above Tm, then what will be value of 'Tm' if the GC% increases to 60%?

Options :

1. Remains same
2. Increases
3. Decreases
4. Cannot be compared

Question id : 3921 Question Type : MCQ
What is the range of melting point temperatures (Tm) for most DNA molecules?

Options :

1. 50-60^{0}C
2. 60 to 80^{0}C
3. 70 to 90^{0}C
4. 80 to 100^{0}C

Question id : 3922 Question Type : MCQ
If one cell has AT contents 40%, what will be the percentage of Guanine residue?

Options :

1. 60%
2. 15%
3. 30%
4. Guanine residue cannot be calculated

Question id : 3923 Question Type : MCQ
Which DNA enzyme RNA primers in DNA synthesis?

Options :

1. Polymerase I
2. Polymerase II
3. Polymerase III
4. Primase

Question id : 3924 Question Type : MCQ
One of the following is not the potential metal binding site in the cell wall of photoautotrophic eukaryotic algae

Options :

1. Carboxylate
2. Imidazole
3. Phosphate sulphydryl
4. Teichuronic acid

Question id : 3925 Question Type : MCQ

Klenow fragment without free nucleotides exhibits

Options :

1. exonuclease activity
2. endonuclease activity
3. nickase activity
4. no activity

Question id : 3926 Question Type : MCQ

An alteration in a nucleotide sequence that changes a triplet coding for an amino acid into a termination codon

Options :

1. Non-sense mutation
2. Missense mutation
3. Mutagen
4. Mutagenesis

Question id : 3927 Question Type : MCQ

Small DNA sequences that can move to virtually any position in a cell's genome.

Options :

1. Exons
2. Introns
3. LTRs
4. Transposons

Question id : 3928 Question Type : MCQ

In base excision repair, the lesion is removed by

Options :

1. DNA glycosylase
2. Excisonase
3. Transposase
4. Excisionase

Question id : 3929 Question Type : MCQ

The enzyme of Escherichia coli is a nuclease that initiates the repair of double-stranded DNA breaks by homologous recombination.

Options :

1. RNA polymerase
2. DNA polymerase
3. DNA ligase
4. RecBCD

Question id : 3930 Question Type : MCQ
Agrobacterium tumefaciens is

Options :

1. a disease in humans that causes loss of sight
2. a bacterium that can be used to introduce DNA into plants
3. a fungi that is used to produce antibiotics in large amounts
4. a disease in humans that causes loss of weight

Question id : 3931 Question Type : MCQ
In genetic engineering, a chimera is

Options :

1. an enzyme that links DNA molecules
2. a plasmid that contains foreign DNA
3. a virus that infects bacteria
4. a fungi

Question id : 3932 Question Type : MCQ
The deliberate modifications of an organism's genetic information by directly changing its nucleic acid content is a subject matter of

Options :

1. Genetic engineering
2. Population genetics
3. Microbiology
4. Protein engineering

Question id : 3933 Question Type : MCQ
Vectors are

Options :

1. molecules that degrade nucleic acids
2. molecules that help in replication
3. molecules that are able to covalently bond to and carry foreign DNA into cells
4. molecules that protect host cells from invasion by foreign DNA

Question id : 3934 Question Type : MCQ
In order to produce a DNA fragment that can be inserted into the DNA of a second organism one would need to

Options :

1. Make sure both organisms have compatible DNA.
2. Be sure both donor and recipient DNA were prokaryotic or eukaryotic.

3. Cut the DNA of the donor and recipient cells with the same restriction enzyme.
4. Create a compatible DNA segment from an mRNA template.

Question id : 3935 Question Type : MCQ

Which of the following is not commonly used as vector?

Options :

1. Artificial chromosome
2. Cosmid
3. Fungi
4. Plasmid

Question id : 3936 Question Type : MCQ

The piece of equipment, that introduces DNA into cells via DNA-coated microprojectiles is known as

Options :

1. Laser
2. DNA probe
3. gene gun
4. inoculating needle

Question id : 3937 Question Type : MCQ

A recombinant DNA molecule is produced by

Options :

1. "Joining of two DNA fragments"
2. "Joining of two or more DNA fragments"
3. By Both Joining of two DNA fragments & Joining of more than two DNA fragments
4. Joining of two or more DNA fragments originating from different organism

Question id : 3938 Question Type : MCQ

Hanning in 1904 cultured the embryos of

Options :

1. Pisum sativum
2. Daucus carota
3. Raphanus sativus
4. Cicer aeritinum

Question id : 3939 Question Type : MCQ

The transport of secretory protein takes placethrough organelles in the order

Options :

1. RER→SER→Golgi→Secretory vesicles
2. SER→ RER→ Golgi →Secretory vesicles

3. RER→SER→ Secretory vesicles→ Golgi
4. RER→ Golgi→ SER→ Secretory vesicles

Question id : 3940 Question Type : MCQ

The retention signal of proteins of ER consist of amino acids

Options :

1. GLy-Asp-Glu-Leu at the N-terminus
2. Lys-Asp-GLu at the N-terminus
3. Gly-Asp-Glu-Leu at the C-terminus
4. Lys-Asp-Glu-Leu at the C-terminus

Question id : 3941 Question Type : MCQ

Protein targeted to mitochondrial matrix are tagged with matrix targeting sequence rich in

Options :

1. Serine and Threonine
2. Serine,Threonine,Lysine and Arginine
3. Serine, Threonine,Glutamine and Arginine
4. Serine,Threonine, Tryptophan and Histidine

Question id : 3942 Question Type : MCQ

Mode of DNA replication in E.coli is

Options :

1. Conservative and unidirectional
2. Semiconservative and unidirectional
3. Conservative and bidirectional
4. Semi-conservative and bidirectional

Question id : 3943 Question Type : MCQ

The Protoplasts are capable of dividing after

Options :

1. 1-2 days
2. 1-2 week
3. 2-7 days
4. 2-3 weeks

Question id : 3944 Question Type : MCQ

How does ultraviolet radiation in sunlight typically damage DNA

Options :

1. It breaks hydrogen bonds between the two strands of DNA.
2. It removes bases from nucleotides in DNA

3. It promotes covalent linkage between two adjacent pyrimidine bases.
4. It removes phosphate from DNA

Question id : 3945 Question Type : MCQ

In addition to its role in DNA repair, homologous recombination is also responsible for generating genetic diversity during what process?

Options :

1. Mitosis
2. Meiosis
3. Independent assortment of chromosomes
4. DNA maintenance methyltransferase.

Question id : 3946 Question Type : MCQ

Negative supercoiling is introduce in DNA by ENZYME

Options :

1. Helicase
2. Ligase
3. Gyrase
4. Topoisomerase

Question id : 3947 Question Type : MCQ

Which of the following is not a phytoremediation process

Options :

1. Phytovolatilization
2. Phytostabilization
3. Phytoaccumulation
4. Phytoaugmentation

Question id : 3948 Question Type : MCQ

Retroviruses like HIV:

Options :

1. must copy their RNA genomes into DNA to replicate
2. must copy their DNA genomes into RNA to replicate
3. must copy the host's genome to replicate
4. contain no genes of their own.

Question id : 3949 Question Type : MCQ

Prokaryotes and eukaryotes use several methods to regulate gene expression, but the most common method is

Options :

1. translational control.

2. transcriptional control.
3. posttranscriptional control.
4. control of mRNA passage from the nucleus.

Question id : 3950 Question Type : MCQ

The two protein subunits of the leucine zipper are held together

Options :

1. in the shape of a Y.
2. by the interaction of leucine amino acids.
3. by hydrophobic interactions.
4. by all the methods given in other options

Question id : 3951 Question Type : MCQ

The helix-turn-helix motif contains two helical segments, and in order for the motif to bind DNA, the _____ fits into the major groove of the DNA.

Options :

1. homeodomain
2. recognition helix
3. zinc finger
4. leucine zipper

Question id : 3952 Question Type : MCQ

A(n) _____ is a piece of DNA with a group of genes that are transcribed together as a unit.

Options :

1. promoter
2. repressor
3. operator
4. operon

Question id : 3953 Question Type : MCQ

A type of DNA sequence that is located far from a gene but can promote its expression is a(n)

Options :

1. promoter
2. activator
3. enhancer
4. TATA box

Question id : 3954 Question Type : MCQ

Which of the following is shared by both prokaryotes and eukaryotes?

Options :

1. promoters
2. RNA splicing
3. 3'-poly A tails
4. 5'-capping

Question id : 3955 Question Type : MCQ

Regarding enhancers and transcription factors (TFs) and their effect on gene expression,

Options :

1. enhancers are cis-activating, while TFs are trans-activating
2. neither are cis nor trans-activating; they are repressors
3. both are cis-activating
4. enhancers are trans-activating, while TFs are cis-activating

Question id : 3956 Question Type : MCQ

umu C, umuD gene family and recA proteins are involved in

Options :

1. BER
2. NER
3. SOS repair
4. Recombinational repair

Question id : 3957 Question Type : MCQ

When a sub-protoplast contain nucleus and some part of cytoplasm and the outer plasma membrane is called

Options :

1. Cytoplast
2. Microplast
3. Microprotoplast
4. Miniprotoplast

Question id : 3958 Question Type : MCQ

In E. coli, attenuation and antitermination utilize which structure?

Options :

1. stem loop structures in RNA
2. stem loop structures in DNA
3. RNA/DNA hybrids
4. helix turn helix motif

Question id : 3959 Question Type : MCQ

Why is the phospholipid molecule so appropriate as the primary structural component of plasma membranes?

Options :

1. Phospholipids are completely insoluble in water.
2. Phospholipids form strong chemical bonds between the molecules, forming a stable structure.
3. Phospholipids form a selectively permeable structure.
4. Phospholipids form chemical bonds with membrane proteins that keep the proteins within the membrane.

Question id : 3960 Question Type : MCQ

Which increases the fluidity of the plasma membrane?

Options :

1. having a large number of membrane proteins
2. the tight alignment of phospholipids
3. cholesterol present in the membrane
4. double bonds between carbon atoms in the fatty acid tails.

Question id : 3961 Question Type : MCQ

What locks all transmembrane proteins in the bilayer?

Options :

1. chemical bonds that form between the phospholipids and the proteins
2. hydrophobic interactions between nonpolar amino acids of the proteins and the aqueous environments of the cell
3. attachment to the cytoskeleton
4. the addition of sugar molecules to the protein surface facing the external environment

Question id : 3962 Question Type : MCQ

Which of the following processes requires membrane proteins?

Options :

1. exocytosis
2. phagocytosis
3. receptor-mediated endocytosis
4. pinocytosis

Question id : 3963 Question Type : MCQ

The effluent from metal mining and milling are effectively treted to degrade cyanide, thiocyanate and ammonia at commercial scale with the help of

Options :

1. Sequential Reactor
2. Rotating Disc Reactor
3. Single Blanket Reactor
4. Fluidized Bed Reactor

Question id : 3964 Question Type : MCQ

Splicing joins:

Options :

1. two intron sequences
2. two polypeptides
3. two DNA molecules
4. two exon sequences

Question id : 3965 Question Type : MCQ
Which of the following does not require protein enzymes?

Options :

1. RNA editing
2. excision of group II introns
3. transsplicing
4. excision of group III introns

Question id : 3966 Question Type : MCQ
Chemical composition of a plant cell wall

Options :

1. cellulose , hemicellulose and pectin.
2. Chrondatin
3. Proteoglycan
4. Chitin

Question id : 3967 Question Type : MCQ
Which of the following is not an edible vaccine which expressed hepatitis B surface antigen

Options :

1. Transgenic Potato
2. Transgenic Tomato
3. Transgenic Banana
4. Transgenic Maize

Question id : 3968 Question Type : MCQ
Intracellular receptors usually bind

Options :

1. water-soluble signals.
2. large molecules that act as signals.
3. signals on the cell surface.
4. lipid-soluble signals.

Question id : 3969 Question Type : MCQ
Which of the following is not a second messenger?

Options :

1. adenylyl cyclase
2. cyclic adenosine monophosphate
3. calcium ions
4. cAMP

Question id : 3970 Question Type : MCQ
The amplification of a cellular signal requires all but which of the following?

Options :

1. a second messenger
2. DNA
3. a signal molecule
4. a cascade of protein kinases

Question id : 3971 Question Type : MCQ
Plasmodesmata are a type of

Options :

1. gap junction.
2. anchoring junction.
3. communicating junction.
4. tight junction.

Question id : 3972 Question Type : MCQ
Cells that are metabolically active but not destined to proliferate are said to be in _____ phase.

Options :

1. G1
2. G0
3. G2
4. metaphase

Question id : 3973 Question Type : MCQ
The checkpoint that requires a cell to be of adequate size in order to move forward is:

Options :

1. the M checkpoint
2. G1/S checkpoint
3. G2/M checkpoint
4. G0 checkpoint

Question id : 3974 Question Type : MCQ
If the p53 gene in a cell is mutated, which of the following situations may occur?

Options :

1. Cells cannot pass the G1/S checkpoint
2. Cells are marked for apoptosis
3. Cells cannot pass the M checkpoint
4. Cells with damaged DNA may proliferate in an uncontrolled manner

Question id : 3975 Question Type : MCQ

What is the difference between apoptosis and necrosis?

Options :

1. Apoptosis is a controlled program of cellular destruction; necrosis is cell death due to damage.
2. Apoptosis is a property of all differentiated cells; necrosis only occurs to undifferentiated cells.
3. Apoptosis is cell death due to damage that occurs during embryogenesis; necrosis is cell death due to damage that occurs during adulthood.
4. Apoptosis is the death of a differentiated cell; necrosis is the death of an undifferentiated cell.

Question id : 3976 Question Type : MCQ

Shine Dalgarno sequence in bacterial mRNA is near:

Options :

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

Question id : 3977 Question Type : MCQ

Carbohydrate Metabolism Glycogen Storage Disorders Deficiency Type I- Von gierke's occurs because of deficiency in

Options :

1. Glucose 6 Phosphate
2. Fructose 6 Phosphate
3. Glucose
4. Galactose

Question id : 3978 Question Type : MCQ

Niemann- Pick's disease occurs because of deficiency in enzyme

Options :

1. Sphingomyelinase
2. Alpha galactoside
3. Glucocerebrosidase
4. Galacto Cerebrosidase

Question id : 3979 Question Type : MCQ

When untreated sewage is emptied into rivers, it causes diseases like

Options :

1. typhoid,
2. dysentery
3. cholera
4. typhoid,dysentery,cholera

Question id : 3980 Question Type : MCQ

The PCR technique was developed by

Options :

1. Kary Mulis
2. Kohler
3. Milstein
4. Altman

Question id : 3981 Question Type : MCQ

Insertional inactivation of a gene helps in

Options :

1. Identification of recombinant clone
2. Identification of deletion mutants
3. Identification of suppression mutant
4. Elimination of recombinant clone

Question id : 3982 Question Type : MCQ

PCR is used in

Options :

1. Site specific recombination
2. Site directed Mutagenesis
3. Site specific to recombination and directed Mutagenesis
4. Site specific translocation

Question id : 3983 Question Type : MCQ

All are true regarding benefit of GM-food except

Options :

1. Higher crop yields
2. Reduced farm costs
3. Increased farm profit
4. The potential for pests to evolve resistance to the toxins produced by GM crops

Question id : 3984 Question Type : MCQ

DNA sequencing can reveal:

Options :

1. Mutations that do not alter phenotype
2. Mutations that do not alter genotype
3. Which tissues will express a gene
4. How many genes a person has

Question id : 3985 Question Type : MCQ

Expressed sequence tags (ESTs) allow researchers to identify:

Options :

1. Genes that encode proteins
2. Microsatellites
3. Ribosomal RNA genes
4. Introns

Question id : 3986 Question Type : MCQ

Which genetic map is derived from restriction length polymorphisms (RFLPs) and is used to distinguish genes tens of kb apart?

Options :

1. Cytogenetic map
2. Linkage map
3. Physical map
4. Sequence map

Question id : 3987 Question Type : MCQ

Who is credited with coining the term genomics?

Options :

1. H. Winkler
2. Patrick Brown
3. Francis Collins
4. T. H. Roderick

Question id : 3988 Question Type : MCQ

The technique of obtaining large number of plantlet by tissue culture method is called

Options :

1. Plantlet culture
2. Micropropagation
3. Organ culture
4. Macropropagation

Question id : 3989 Question Type : MCQ
The size of the human genome is about _____ times larger than that of H. influenzae.

Options :

1. 10
2. 20 million
3. 3000
4. 1500

Question id : 3990 Question Type : MCQ
MHC class __ proteins present peptides to cytotoxic T cells

Options :

1. I
2. II
3. III
4. IV

Question id : 3991 Question Type : MCQ
The ability to produce billions of different antibodies in humans results from:

Options :

1. The presence of billions of complete antibody genes in B cells
2. The fact that both T cells and B cells contain antibody genes
3. The production of variable regions of light and heavy antibody genes by DNA rearrangement
4. The fact that a single antibody gene produces an antibody capable of billions of different three-dimensional structures and the ability to combine with any antigen

Question id : 3992 Question Type : MCQ
If a B cell clone began to produce antibody with altered binding strength and specificity for antigen, you would expect the mutation of the antibody gene to involve:

Options :

1. The variable region of the heavy chain or the constant region of the light chain
2. The variable region of the light chain or the constant region of the heavy chain
3. The variable regions of the light or heavy chains
4. The constant regions of the light or heavy chains

Question id : 3993 Question Type : MCQ
The region of a Class I or II MHC molecule that is responsible for binding processed antigen peptides for presentation.

Options :

1. Peptide-binding groove

2. Peptide-bonding antigen
3. Peptide-bonding grove
4. Peptide-binding hinge

Question id : 3994 Question Type : MCQ

Which of the following expressess CD3 surface antigen?

Options :

1. Granulocytes
2. T cells
3. Monocytes
4. B cells

Question id : 3995 Question Type : MCQ

The single cell protein production being done through the use of blue green alga. Which of the following is wrong

Options :

1. Spirulina
2. Chara
3. Chlorella
4. Scenedesmus

Question id : 3996 Question Type : MCQ

Cytotoxic T-cells can be recognized by which of the following cell surface marker?

Options :

1. CD4
2. CD7
3. CD8
4. CD9

Question id : 3997 Question Type : MCQ

Agglutination is more sensitive in the detection of

Options :

1. Antigens
2. Antibodies
3. Antigen-antibody complex
4. Complement

Question id : 3998 Question Type : MCQ

Vaccines prepared from toxins and chemicals are

Options :

1. Cellular vaccines
2. Sub-cellular vaccines
3. Attenuated vaccines
4. Heterologous vaccines

Question id : 3999 Question Type : MCQ

The process of weakening the pathogens is called

Options :

1. Vaccination
2. Atteneuation
3. Immunization
4. Virluence reduction

Question id : 4000 Question Type : MCQ

Which of the following is a polysaccharide vaccines

Options :

1. Anthrax vaccine
2. Rabies vaccine
3. Hepatitis A
4. Hib vaccine

Question id : 4001 Question Type : MCQ

The controversy regarding the use of Bt corn is that it

Options :

1. is potentially harmful to monarch butterflies
2. is a potential allergen to humans
3. both harmful to monarch butterflies & allergen to humans
4. can contaminate groundwater

Question id : 4002 Question Type : MCQ

The major molecules responsible for rejection of transplant is

Options :

1. B cells
2. T cells
3. Antibodies
4. MHC molecules