

परीक्षेचे नांव : सहायक प्राध्यापक, वनस्पतीशास्त्र/जीवशास्त्र/सूक्ष्मजीवशास्त्र,

परीक्षेचा दिनांक : 09 फेब्रुवारी, 2014

महाराष्ट्र शिक्षण सेवा (महाविद्यालयीन शाखा), गट -अ, चाळणी परीक्षा-2013

विषय : वनस्पतीशास्त्र/ जीवशास्त्र /सूक्ष्मजीवशास्त्र

महाराष्ट्र लोकसेवा आयोगामार्फत सहायक प्राध्यापक, वनस्पतीशास्त्र/ जीवशास्त्र /सूक्ष्मजीवशास्त्र, महाराष्ट्र शिक्षण सेवा (महाविद्यालयीन शाखा), गट -अ, चाळणी परीक्षा-२०१३ या चाळणी परीक्षेच्या प्रश्नपत्रिकेची उत्तरतालिका उमेदवारांच्या माहितीसाठी संकेतस्थळावर प्रसिध्द करण्यात आली होती. त्यासंदर्भात उमेदवारांनी अधिप्रमाणित (Authentic) स्पष्टीकरण / संदर्भ देऊन पाठविलेली लेखी निवेदने, तसेच तज्ज्ञांचे अभिप्राय विचारात घेऊन आयोगाने उत्तरतालिका सुधारित केली आहे. या उत्तरतालिकेतील उत्तरे अंतिम समजण्यात येतील. यासंदर्भात आलेली निवेदने विचारात घेतली जाणार नाहीत व त्याबाबत कोणताही पत्रव्यवहार केला जाणार नाही, याची कृपया नोंद घ्यावी.

उत्तरतालिका - KEY

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 Botany Biology Microbiology

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

Subsection : 1, Question Shuffling Allowed : Yes

Question id : 1601 Question Type : MCQ

The longest stage of mitosis is

Options :

1. prophase
2. metaphase
3. anaphase
4. telophase

Question id : 1602 Question Type : MCQ

Recently discovered gymnosperm is

Options :

1. Pinus longaeva
2. Taxus brevifolia
3. Wollemia nobilis
4. Ginkgo biloba

Question id : 1603 Question Type : MCQ

Bacterium that fixes CO₂ via Calvin-Benson cycle is

Options :

1. *Macromonas* spp.
2. *Beggiatoa* spp.
3. *Leptothrix* spp.
4. *Thiobacillus* spp.

Question id : 1604 Question Type : MCQ

The nuclear body is bounded by two membranes in

Options :

1. *Pirellula marina*
2. *Borrelia burgdorferi*
3. *Gemmata obscuriglobus*
4. *Aquaspirillum magnetotacticum*

Question id : 1605 Question Type : MCQ

Phytosiderophores are highly specific ligands that bind with

Options :

1. Sodium
2. Iron
3. Potassium
4. Calcium

Question id : 1606 Question Type : MCQ

Suitable chemical for protoplast fusion is

Options :

1. NaNO_3
2. Na_2CO_3
3. KNO_3
4. H_2SO_4

Question id : 1607 Question Type : MCQ

A powerful inhibitor of stomatal opening is

Options :

1. Auxin
2. Cytokinin
3. Gibberelin
4. ABA

Question id : 1608 Question Type : MCQ

Principal commercial source of rubber is

Options :

1. *Parthenium argentatum*
2. *Hevea brasiliensis*
3. *Quillaja saponaria*
4. *Glycyrrhiza glabra*

Question id : 1609 Question Type : MCQ

One of the examples of a quillwort is

Options :

1. *Selaginella apoda*
2. *Equisetum arvense*
3. *Isoetes gunnii*
4. *Psilotum nudum*

Question id : 1610 Question Type : MCQ

A bryophyte having resistant phenolic compounds embedded in their cell wall is

Options :

1. *Sphagnum*
2. *Marchantia*
3. *Polytrichum*
4. *Anthoceros*

Question id : 1611 Question Type : MCQ

Closest living relative of land plants is

Options :

1. *Caulerpa*
2. *Ulva*
3. *Volvox*
4. *Chara*

Question id : 1612 Question Type : MCQ

Digitalin, used for heart medication, is obtained from

Options :

1. *Belladonna plant*
2. *Foxglove*
3. *Eucalyptus tree*
4. *Cinchona tree*

Question id : 1613 Question Type : MCQ

Genes for cytosolic glutamine synthetase are expressed in

Options :

1. cortex
2. mesophyll
3. phloem
4. xylem

Question id : 1614 Question Type : MCQ

Light activation of chloroplast enzymes occurs through

Options :

1. ferredoxine-thioredoxin reductase
2. thioredoxin
3. protein disulfide isomerase
4. chloroplast transcriptase

Question id : 1615 Question Type : MCQ

Bacterial genes responsible for the synthesis of extracellular polysaccharides during symbiosis are

Options :

1. bacA and noc
2. ndv and lps
3. fixI and fixJ
4. nol and nod

Question id : 1616 Question Type : MCQ

Enzymatic activity of APS reductase is associated with its

Options :

1. C-terminal domain
2. N-terminal domain
3. glutaredoxine motif
4. thioredoxin motif

Question id : 1617 Question Type : MCQ

Restoration of fertility in male maize plant requires the expression of two genes. If only one gene (RF1) is expressed then fertility is

Options :

1. not restored and URF 13 level increased
2. restored and URF 13 decreased
3. partially restored and URF 13 remain same
4. not restored and URF 13 level reduced

Question id : 1618 Question Type : MCQ

S-proteins which mediate self incompatibility in Solanum spp. are

Options :

1. DNases
2. S-degradosomes
3. S-flavoproteins
4. RNases

Question id : 1619 Question Type : MCQ

The protein that provides resistance to a pathogen in plants possess

Options :

1. zinc finger repeat motif
2. leucine zipper repeat motif
3. leucine rich repeat motif
4. helix loop helix repeat motif

Question id : 1620 Question Type : MCQ

FadR protein of E. coli acts as

Options :

1. an activator in the presence of long chain fatty acid
2. an activator in the absence of acetyl co A
3. a repressor in the absence of acetyl co A
4. a repressor in the presence of short chain fatty acid

Question id : 1621 Question Type : MCQ

Protein responsible for bending of DNA during transcription of certain gene is

Options :

1. H-NS
2. IHF
3. Xis
4. NusA

Question id : 1622 Question Type : MCQ

The developmental expression of genes through histone modification is controlled by

Options :

1. histone deacetylase
2. histone acetyl transferase
3. polycomb group protein
4. SBF transcription factor

Question id : 1623 Question Type : MCQ

Replication licensing factors that bind to origin recognition complex in yeast are

Options :

1. Cdc45, ctd1
2. Cdc28, ctd1
3. Cdc6, cdt1
4. Cdc24, ctd1

Question id : 1624 Question Type : MCQ

Poly pyrimidine tract binding proteins which constitute a major part of group II spliciosome assembly are

Options :

1. U2AF, PTB and PSF
2. U1, U2 and U6
3. SRp20, SRp35 and SRp42
4. hnRNP, SnRNP and non-SnRNP

Question id : 1625 Question Type : MCQ

Small RNA molecule derived from genomic DNA tandem repeat is

Options :

1. piRNA
2. miRNA
3. snRNA
4. gRNA

Question id : 1626 Question Type : MCQ

In unusual fatty acids of plants the unsaturation begins after

Options :

1. C-9 and progresses in the direction of methyl carbon
2. any carbon and progresses in the direction of methyl carbon
3. C-9 and progresses in any direction
4. any carbon and progresses in any direction

Question id : 1627 Question Type : MCQ

A cell maintains nascent peptide chains in non aggregated folding state with the help of

Options :

1. Hsp70
2. GroEL-TRiC
3. GroES
4. Hsp40

Question id : 1628 Question Type : MCQ

Enzyme that bypasses glycolytic reactions in the absence of adenine nucleotide in plants is

Options :

1. Glycerinaldehyde 3 phosphate kinase
2. Phosphoenol pyruvate phosphatase
3. 3 Phosphoglycerate dehydrogenase
4. Phosphofructokinase

Question id : 1629 Question Type : MCQ

The direct precursor of gibberelic acid biosynthesis is

Options :

1. copalyl diphosphate
2. geranyl diphosphate
3. ent-kaurene
4. farnesyl diphosphate

Question id : 1630 Question Type : MCQ

α -solanine inhibits the activity of

Options :

1. cholinesterase
2. cytochrome P450 monooxygenase
3. trypsin
4. chymotrypsin

Question id : 1631 Question Type : MCQ

Plant flavonoid responsible for pink colour is

Options :

1. pelargonidin
2. delphinidin
3. cyanidin
4. rubidine

Question id : 1632 Question Type : MCQ

Bacterial membrane contains sterol-like molecules, such as

Options :

1. chloesterol
2. stigmasterol
3. manitetrol
4. hopanoids

Question id : 1633 Question Type : MCQ

The bacteriophages MS₂ and QB contain

Options :

1. minus strand RNA genome
2. plus strand RNA genome
3. single stranded DNA genome
4. double stranded DNA genome

Question id : 1634 Question Type : MCQ

Destruction of the sheath covering skeletal muscles is caused by

Options :

1. Clostridium tetani
2. Streptococcus
3. Chlamydia trachomatis
4. Vibrio cholerae

Question id : 1635 Question Type : MCQ

Leukoencephalomalacia in horse is caused by

Options :

1. Aspergillus niger
2. Cryptococcus neoformans
3. Candida rugosa
4. Fusarium moniliforme

Question id : 1636 Question Type : MCQ

Haemophilus influenzae takes up DNA from closely related species because it has

Options :

1. a specific protein factor
2. a receptor protein
3. 11 base pairs repeated DNA sequence
4. 19 base pairs repeated DNA sequence

Question id : 1637 Question Type : MCQ

In the Archaea, B-responsive element (BRE) is present

Options :

1. before transcription start site
2. before transcription termination site
3. after translation start site
4. after translation termination site

Question id : 1638 Question Type : MCQ

The commonly used yeast for chocolate fermentation is

Options :

1. *Aspergillus* spp.
2. *Saccharomyces* spp.
3. *Neurospora* spp.
4. *Kluyveromyces* spp.

Question id : 1639 Question Type : MCQ

Diplospory found in

Options :

1. *Triticum*
2. *Tradescantia*
3. *Tripsacum*
4. *Trifolium*

Question id : 1640 Question Type : MCQ

International centre for agriculture research in dry areas maintains the germplasm of

Options :

1. Barley
2. Pearl millets
3. Soybean
4. Potato

Question id : 1641 Question Type : MCQ

Presence of the free margins, conduplicate carpel and fused in the basal region is the characteristic feature of

Options :

1. *Elmerillia tsiampacca*
2. *Drimys piperita*
3. *Magnolia grandiflora*
4. *Aromadendron elegans*

Question id : 1642 Question Type : MCQ

The proteins encoded by McrB and McrC genes recognize the DNA sequence for cleavage is

Options :

1. 5'-A-mC-N₄₀₋₈₀-A-mC-3'
2. 5'-T-mC-N₄₀₋₈₀-T-mC-3'
3. 5'-U-mC-N₄₀₋₈₀-U-mC-3'
4. 5'-C-mC-N₄₀₋₈₀-C-mC-3'

Question id : 1643 Question Type : MCQ

Monosomic wheat (*Triticum aestivum*) is produced by

Options :

1. pollinating trisomic wheat with normal diploid wheat
2. pollinating nullisomic wheat with normal diploid wheat
3. pollinating haploid wheat with normal diploid wheat
4. pollinating amphiploid wheat with normal diploid wheat

Question id : 1644 Question Type : MCQ

Which one of the following is an example of RFLP linked mapping of gene using Near Isogenic Lines

Options :

1. Gene for resistance against nematode in potato
2. Two genes (Rx1, Rx2) for resistance against potato virus
3. Genes for resistance against nematode in sugarcane
4. Gene Sm for *Stemphylium* resistance

Question id : 1645 Question Type : MCQ

In Mediterranean climate, vegetation is

Options :

1. evergreen and deciduous trees and shrubs
2. deciduous forest and grasslands
3. evergreen and have wide circumpolar range
4. deciduous forests only

Question id : 1646 Question Type : MCQ

Cones do not open to release their seeds until they have been burned in

Options :

1. *Calocedrus* spp.
2. *Araucaria* spp.
3. *Thuja* spp.
4. *Pinus* spp.

Question id : 1647 Question Type : MCQ

Psilophyton-like plant of the Trimerophytina was evolved in

Options :

1. upper Devonian
2. upper Cretaceous
3. mid Devonian
4. mid Cretaceous

Question id : 1648 Question Type : MCQ

The three-pored angiosperm pollen characteristics of all but the most primitive dicots had appeared

Options :

1. ~80 million year ago
2. ~120 million year ago
3. ~160 million year ago
4. ~200 million year ago

Question id : 1649 Question Type : MCQ

Avenacin A-1 found in the root of oat plant is highly effective against

Options :

1. *Psylliodes chrysocephala*
2. *Xanthomonas citri*
3. *Gaeumannomyces graminis*
4. *Pseudomonas syringae*

Question id : 1650 Question Type : MCQ

Most potent synthetic chemical to induced systemic acquired resistance in plants is

Options :

1. 2, 4-dichlorophenoxy acetic acid
2. 2, 6-dichloroisonicotinic acid
3. 2, 6-dichlorobenzopyrol
4. 2, 4-dihydroxyphenoxy acetic acid

Question id : 1651 Question Type : MCQ

An intermediate compound of the cytoplasmic pathway of isoprenoid biosynthesis is

Options :

1. acetoacetyl-CoA
2. mevalonic acid 5 phosphate
3. 2-C-Methyl-D-erythritol-4-phosphate
4. 1 Deoxy-D-ribulose 5 phosphate

Question id : 1652 Question Type : MCQ

Spider silk, a structural protein, contains

Options :

1. alpha helix
2. alpha helical secondary structure
3. beta pleated sheath
4. both alpha helix and beta sheath

Question id : 1653 Question Type : MCQ

RNA stability in prokaryotes is enhanced due to the presence of

Options :

1. repetitive extragenic palindromes
2. repetitive intragenic palindromes
3. a DEAD box proteins
4. a DEAD box RNA helicase

Question id : 1654 Question Type : MCQ

The protein involved in recombination in several archaeons

Options :

1. RecA
2. Rad51
3. DmcA
4. RadA

Question id : 1655 Question Type : MCQ

The protein that helps in lambda Phage DNA excision from bacterial chromosome is

Options :

1. XerCD protein
2. Xis protein
3. Cre recombinase
4. Hin Invertase

Question id : 1656 Question Type : MCQ

Genes responsible for determination of sex in bryophytes are

Options :

1. FEM1 and TRA
2. Sdc-1 and Sdc-2
3. ORF162 and M2D3.5
4. Hers and TRA

Question id : 1657 Question Type : MCQ

Activation of DnaB in DNA replication of λ phage is assisted by

Options :

1. λp and λc
2. DnaK and DnaJ
3. DnaA and DnaC
4. λo and repA

Question id : 1658 Question Type : MCQ

In CsrABC system of E. coli, CsrA regulates the

Options :

1. repression of glucose synthesis and activation of glycogen and glycolysis
2. repression of glycogen synthesis and activation of glucose and glycolysis
3. activation of glucose and glycogen synthesis and repression of glycolysis
4. activation of glycolysis and repression of glucose and glycogen synthesis

Question id : 1659 Question Type : MCQ

Riboswitch controls translation through

Options :

1. translation inhibition mechanism
2. attenuation mechanism
3. both translation inhibition and attenuation mechanisms
4. degradation of newly formed transcripts

Question id : 1660 Question Type : MCQ

Among the first genes to be up-regulated in response to cytokinin is

Options :

1. AHK-2
2. CHASE
3. AHK-3
4. ARR

Question id : 1661 Question Type : MCQ

Some types of variation are due to changes in the genetic material. What is this type of change called?

Options :

1. Fertilisation
2. Mutation
3. Radiation
4. Sterilisation

Question id : 1662 Question Type : MCQ

Which protein has been produced generating a transgenic sheep that is used for replacement therapy for individuals at risk from emphysema?

Options :

1. Plasminogen activator (tPA)
2. α -anti trypsin (AAT)
3. Casein
4. Amyloid precursor proteins

Question id : 1663 Question Type : MCQ

DNA into fish is injected into

Options :

1. Pronuclei
2. Cytoplasm
3. both pronuclei & cytoplasm
4. neither pronuclei nor cytoplasm

Question id : 1664 Question Type : MCQ

Transgenic goats have been used to produce which of the following protein that is used for dissolving blood clots?

Options :

1. Amyloid precursor protein
2. α 1-anti trypsin (AAT)
3. Casein
4. A variant of human tissue-type plasminogen activator

Question id : 1665 Question Type : MCQ

Superovulation is primarily the result of

Options :

1. decreased atresia in medium and large follicles (>1.7 mm)
2. increased atresia in medium and large follicles (>1.7 mm)
3. increased atresia in the large follicles (<1.7 mm)
4. increased atresia in the large follicles (>1.7 mm)

Question id : 1666 Question Type : MCQ

Animal pharming can be defined as

Options :

1. growing animals for farming
2. programming animals to produce novel products
3. generating transgenic animals for farming
4. growing animals for domestic use

Question id : 1667 Question Type : MCQ

When a fertilized egg cell develops into an embryo, the entropy of the living system

Options :

1. Decreases
2. Increases
3. remains constant

4. First increases then decreases

Question id : 1668 Question Type : MCQ

Fusion of karyoplast with the enucleated cell is achieved in presence of

Options :

1. cytochalasin B
2. polyethylene glycol
3. both Cytochalasin B & Polyethylene glycol
4. alcohol

Question id : 1669 Question Type : MCQ

Bar eye character of Drosophila is due to

Options :

1. duplication in region of 16A of X chromosome
2. deletion in region of 16A of X chromosome
3. due to presence of additional X-chromosome
4. due to a point mutation in eye-locus

Question id : 1670 Question Type : MCQ

Transmission of a gene from male parent to female child to male grand child is known as

Options :

1. holandric inheritance
2. quantitative inheritance
3. criss-cross inheritance
4. maternal inheritance

Question id : 1671 Question Type : MCQ

Which one of the following defects do you expect to see if you were able to specifically block apoptosis in the developing limb bud of a frog embryo?

Options :

1. The digits will remain connected through a web-like extension
2. The bones will not form, and the limb would look like a paddle
3. The limb would look normal but would be larger in size
4. The anterior-posterior polarity of the limb will be lost.

Question id : 1672 Question Type : MCQ

Which one of the following is not a characteristic of phylum mollusca ?

Options :

1. True body cavity
2. Metamerism

3. Organ system level of organisation

4. Bilaterally symmetrical

Question id : 1673 Question Type : MCQ

After invitro fertilization :

Options :

1. Embryo with more than 8 cells are implanted in uterus.

2. Embryo with more than 16 cells are not implanted in uterus.

3. Embryo with 8-16 cells can be implanted in uterus.

4. Embryo with cells more than 16 is implanted in uterus.

Question id : 1674 Question Type : MCQ

Which of the following disorder is mainly determined by alteration in the single gene?

Options :

1. Chromosomal disorder

2. Mendelian disorder

3. Down's syndrome

4. Turner syndrome

Question id : 1675 Question Type : MCQ

Which of the following statement is not correct

Options :

1. During DNA-replication, deoxyribonucleotide triphosphate serve dual purposes

2. DNA-dependent -DNA polymerase catalyse the polymerisation only in one direction i.e. 5'-3'

3. A failure in cell division after DNA replication results into polyploidy

4. In DNA of E.coli only 4.6×10^6 bp are present

Question id : 1676 Question Type : MCQ

Mosquito injects into the blood of the next host through mosquito bites

Options :

1. sporozoites

2. merozoites

3. gametophyte

4. zygote

Question id : 1677 Question Type : MCQ

In hemoglobin efficiency for oxygen increases then there is

Options :

1. Low pO_2

2. High pCO_2

3. Low pCO₂

4. High pO₂

Question id : 1678 Question Type : MCQ

Aldosterone is involved in

Options :

1. Electrolyte balance

2. Carbohydrate metabolism

3. Growth and development

4. Fat metabolism

Question id : 1679 Question Type : MCQ

Insulin resistance females generally have problem in ovulation because

Options :

1. The elevated androgens cause an increase in free estrogens which results in a decrease in follicle stimulating hormone (FSH)

2. Ovary become non-functional

3. Amount of free estrogen decreases

4. The androgens are decreased thus follicle stimulating hormone (FSH) is increased.

Question id : 1680 Question Type : MCQ

Pearl Oysters are obtained from the genus

Options :

1. Oysteria

2. Mytilus

3. Pila

4. Pinctada

Question id : 1681 Question Type : MCQ

Anaemia due to lack of hemoglobin is associated with

Options :

1. Vitamin B6

2. calcium deficiency

3. vitamin B12

4. Iron deficiency

Question id : 1682 Question Type : MCQ

Fat soluble vitamins involved in bone formation and blood clotting are

Options :

1. Vit D and Vit K

2. Vit B and Vit K
3. Vit A and Vit K
4. Vit C and Vit K

Question id : 1683 **Question Type : MCQ**
Concentration of urine in mammals depends on

Options :

1. length of Glomerulus
2. Length of Henle's loop
3. Osmotic pressure of blood
4. Size of organism

Question id : 1684 **Question Type : MCQ**
Uricotelism is an adaptation for

Options :

1. Conserving water
2. Conserving salt
3. Marine Habitats
4. High altitude

Question id : 1685 **Question Type : MCQ**
Hypertrophy in anterior pituitary in adult lead to

Options :

1. Gigatism
2. dwarfinism
3. acromegaly
4. cretinism

Question id : 1686 **Question Type : MCQ**
Major weight of human body is due to

Options :

1. Carbon
2. oxygen
3. phosphorus
4. nitrogen

Question id : 1687 **Question Type : MCQ**
Which of the following is not correctly matched

Options :

1. Porifera-Chanocytes

2. Arthropods- Malphigian tubules

3. Annelids- Citellum

4. Molluscs-Cnidocytes

Question id : 1688 Question Type : MCQ

Which phylum is characterized by absence of body symmetry, no tissue, organ and lack of nervous system?

Options :

1. Porifera

2. Cnidaria

3. Pteniphora

4. Rhyzophora

Question id : 1689 Question Type : MCQ

The specialized structure pectin for clear eye sight is characteristic feature of

Options :

1. Birds

2. Amphibian

3. Aquatic mammals

4. Nocturnal mammals

Question id : 1690 Question Type : MCQ

In brain meninges are absent at

Options :

1. Dura matter

2. Grey matter

3. Pia matter

4. Archnoid matter

Question id : 1691 Question Type : MCQ

Vector for transmission of disease Kalazar is

Options :

1. Anophelus

2. Glossina

3. Ades

4. Phlebotomus

Question id : 1692 Question Type : MCQ

Consider the following events in history of life?

A) prokaryotic cell

- B) eukaryotic cell
- C) natural selection
- D) organic macromolecules
- E) formation of replicating molecule

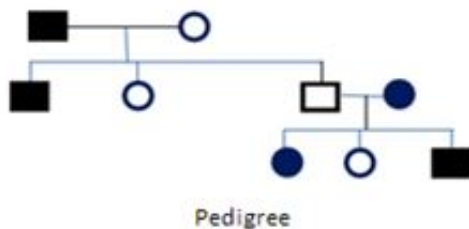
Which of the following is the correct sequence?

Options :

1. D -> E -> A -> C -> B
2. D -> E -> A -> B -> C
3. D -> E -> C -> A -> B
4. E -> C -> A -> B -> D

Question id : 1693 Question Type : MCQ

Consider the following pedigree chart



Pedigree The pedigree chart above can be used to investigate different modes of inheritance such as

- A: autosomal dominant
- B: autosomal recessive
- C: X-linked dominant
- D: X-linked recessive

Which of the following modes can be represented by pedigree chart above?

Options :

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

Question id : 1694 Question Type : MCQ

A woman patient suffering from thyrotoxicosis shows high level of thyroxine in the blood which is attributed to failure in feed back inhibition in hypothalamic-pituitary-thyroxine circuit. If we further check blood in detail, patient will also show high level of

- A: TSH
- B: thyroid stimulating IgM
- C: TRH
- D: parathyroid hormone

Which of the following combination of above statements is correct?

Options :

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

Question id : 1695 Question Type : MCQ

A person suffering from night blindness moves to doctor. Doctor initially advised patient to consume more of fish oil but one month later seeing no improvement Doctor give him injection of Vitamin A. Still there was no improvement in visibility. The probable reason for failure of both treatments may be lack of any of the enzyme given below

- A: retinol dehydrogenase
- B: retinal synthase
- C: retinal isomerase
- D: retinal reductase

Which is the correct reason for night blindness in above case?

Options :

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

Question id : 1696 Question Type : MCQ

The following represents some steps in Krebs cycle

Isocitrate- \rightarrow α -KGA- \rightarrow Succinyl CoA- \rightarrow Succinate- \rightarrow Fumarate

Which of the following is correct for each step?

Options :

1. NAD- \rightarrow NADH, NAD- \rightarrow NADH, ADP- \rightarrow ATP, FAD- \rightarrow FADH₂
2. NAD- \rightarrow NADH, FAD- \rightarrow FADH₂, GDP- \rightarrow GTP, FAD- \rightarrow FADH₂
3. NAD- \rightarrow NADH, NAD- \rightarrow NADH, GDP- \rightarrow GTP, FAD- \rightarrow FADH₂
4. NAD- \rightarrow NADH, FAD- \rightarrow NADH₂, ADP- \rightarrow ATP, NAD- \rightarrow NADH

Question id : 1697 Question Type : MCQ

The following are characteristics of a threatened animal

- 1: population declined 90%
- 2: population below 50 individuals
- 3: Extent of area occupancy below 100 Sq Km
- 4: probability of extinction in wild at least 50% in upcoming 10 years

As per IUCN red data book, the organism would be kept in category of

Options :

1. Endangered
2. Vulnerable
3. Extinct in wild
4. Critically endangered

Question id : 1698 Question Type : MCQ

Which of the following is false for Ascaris:

Options :

1. belongs to genus nematode.
2. known as the "Small intestinal roundworms".
3. Its example includes *A. lumbricoides*
4. can infect salivary glands.

Question id : 1699 Question Type : MCQ

The parasite plasmodium damages red blood cells using which enzymes

Options :

1. plasmepsin
2. chymotrypsin
3. histidine acid phosphatase
4. trypsin.

Question id : 1700 Question Type : MCQ

The vector for *P. falciparum* is

Options :

1. *Anopheles gambiae*
2. *Anopheles latens*
3. *Anopheles maculatus*
4. *Anopheles maculipennis*