Question Paper Name: 484 23rd May 2019 Shift 1
Subject Name: 484
Creation Date: 2019-05-23 13:20:49
Duration: 120
Total Marks: 360
Display Marks: Yes
Share Answer Key With Delivery Engine: Yes
Actual Answer Key: Yes

MSc Zoology

| Group Number : | 1 |
| Group Id : | 65898812 |
| Group Maximum Duration : | 0 |
| Group Minimum Duration : | 120 |
| Revisit allowed for view? : | No |
| Revisit allowed for edit? : | No |
| Break time: | 0 |
| Group Marks: | 360 |

MSc Zoology

| Section Id : | 65898812 |
| Section Number : | 1 |
| Section type : | Online |
| Mandatory or Optional: | Mandatory |
| Number of Questions: | 120 |
| Number of Questions to be attempted: | 120 |
| Section Marks: | 360 |
| Display Number Panel: | Yes |
| Group All Questions: | No |

Sub-Section Number: 1
Sub-Section Id: 65898812
Question Shuffling Allowed : Yes

Question Number : 1  Question Id : 6589881201  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes Number of Replay : 999  Play On Load : No  Control Enable : Yes Correct Marks : 3  Wrong Marks : 1

Question Label : Multiple Choice Question

How are amino acids and monosaccharides transported from the internal lumen into epithelial cells?

Options:
1. Simple diffusion
2. Active transport
3. Facilitated diffusion
4. Endocytosis

Question Number : 2  Question Id : 6589881202  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question

If a sample of DNA is found to have the base composition (mole ratios) of adenine, 40; thymine, 22; guanine, 21; and cytosine 17, which of the following conclusions will be most appropriate?

Options:
1. The given DNA is a double stranded circular molecule
2. It is a linear double stranded molecule
3. It is a single stranded molecule
4. It has high melting point

Question Number : 3  Question Id : 6589881203  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question

The recombination frequencies between three genes, x, y and z are as given below:
Between x and y 10%, y and z 4%, x and z 6%. The order of the genes will be:

Options:
1. x-y-z
2. x-z-y
3. z-y-x
4. Both x-y-z and z-y-x

Question Number : 4  Question Id : 6589881204  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question
What kind of aneuploid gametes will be generated if meiotic non-disjunction occurs at first division (n means haploid number of chromosomes)?
Options:
1. either n + 1 or n - 1
2. both n + 1 or n - 1
3. both n - 1 and n
4. n - 1

Question Number : 5  Question Id : 6589881205  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question
The blood group of a couple is as follows: Husband 'O' Rh –ve, wife 'A' Rh –ve. Their new born baby got mixed in the hospital. Among the four new born babies present in the hospital, which one would you think was their baby?
Options:
1. The baby with blood group 'A' Rh –ve
2. The baby with blood group 'A' Rh +ve
3. The baby with blood group 'O' Rh +ve
4. The baby with blood group 'AB' Rh –ve

Question Number : 6  Question Id : 6589881206  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question
Cl/B technique in Drosophila is used to detect:
Options:
1. autosomal recessive mutations
2. autosomal dominant mutations
3. sex linked dominant mutations
4. sex linked recessive lethal mutations
Question Number : 7  Question Id : 6589881207  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
A recombination event in bacteria involving temperate phage lambda occurs during :
Options :
1. Transformation
2. Conjugation
3. Generalized transduction
4. Specialized transduction

Question Number : 8  Question Id : 6589881208  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
A suitable example of DNA-repair deficient disorder in human is :
Options :
1. Xeroderma pigmentosum
2. Sickle cell anemia
3. Albinism
4. Both Xeroderma pigmentosum & albinism

Question Number : 9  Question Id : 6589881209  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
If the allelic distribution of a given gene in a population is: A 60% and a 40%, then the genotypic distribution of AA, Aa and aa will be as follows :
Options :
1. 9:12:4
2. 9:2:4
3. 1:2:1
Question Number : 10  Question Id : 6589881210  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question  
If a dihybrid test cross yields 4 : 2 : 2 : 4 ratio, then it indicates that the :  
Options :  
1. two genes are independently assorting  
2. the alleles of a gene is segregated  
3. two genes are linked  
4. the two genes are y-linked  

Question Number : 11  Question Id : 6589881211  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question  
30 S ribosomes are present in :  
Options :  
1. Prokaryotic cells  
2. Eukaryotic cells  
3. Both prokaryotic cells and eukaryotic cells  
4. Viruses  

Question Number : 12  Question Id : 6589881212  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question  
Sodium potassium ATPase pump transports :  
Options :  
1. 3 potassium in and 2 sodium ions out of the cell  
2. 2 potassium in and 3 sodium ions out of the cell  
3. 3 potassium out and 3 sodium ions in of the cell
3 potassium ions and 2 sodium ions in the cell

Question Number: 13  Question Id: 6589881213  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1  
Question Label: Multiple Choice Question  
COP 1 vesicles transport proteins from:

Options:
1. Endoplasmic reticulum to cis-Golgi network
2. cis-Golgi network to endoplasmic reticulum
3. Between Golgi compartments
4. Both cis-Golgi network to endoplasmic reticulum and between Golgi compartments

Question Number: 14  Question Id: 6589881214  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1  
Question Label: Multiple Choice Question  
Detoxification of drugs takes place in:

Options:
1. Smooth Endoplasmic reticulum
2. Rough Endoplasmic reticulum
3. Golgi Body
4. Lysosomes

Question Number: 15  Question Id: 6589881215  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1  
Question Label: Multiple Choice Question  
The following proteins are abundant in extracellular matrix:

Options:
1. Collagen
2. Tubulin
Question Number : 16  Question Id : 6589881216  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Restriction point in the cell cycle is present between :
Options :
1. G₁ to S phase
2. S to G₂ phase
3. G₂ to M phase
4. G₀ to G₁ phase

Question Number : 17  Question Id : 6589881217  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
In comparison to the normal cells, the requirement of growth factors for transformed cells are usually :
Options :
1. More
2. Less
3. Same
4. No requirement

Question Number : 18  Question Id : 6589881218  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
The organelle responsible for I-cell disease is :
Options :
1. Mitochondria
2. Endoplasmic reticulum
3. Lysosome
4. Peroxisome

Question Number : 19  Question Id : 6589881219  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Crossing over of chromatid pairs occur during :
Options :
1. Leptotene stage
2. Zygotene stage
3. Pachytene stage
4. Diplotene stage

Question Number : 20  Question Id : 6589881220  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
The cytoskeletal protein that helps in the maintenance of nuclear shape is :
Options :
1. Microtubule
2. Actin
3. Lamin
4. Myosin

Question Number : 21  Question Id : 6589881221  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Cyclin dependent kinases are family of :
Options :
Serine threonine protein kinases

Tyrosine kinases

Histidine specific protein kinases

Mixed kinases

Question Number : 22  Question Id : 6589881222  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
A genetically diseased father marries with a normal woman. This couple has two carrier girls and five normal sons. It may be which type of genetic disease?
Options:
1. sex-influenced disease
2. blood group inheritance disease
3. sex-linked disease
4. sex-limited trait

Question Number : 23  Question Id : 6589881223  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Cat's cry syndrome in humans is caused by the:
Options:
1. trisomy of 21st chromosome
2. fertilization of an XX egg by a normal Y-bearing sperm
3. loss of half of the short arm of chromosome 5
4. loss of half of the long arm of chromosome 5

Question Number : 24  Question Id : 6589881224  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Mitochondrial mutations in humans tend to affect some tissues more than others. What is the most likely explanation?

Options:
1. Some human tissues do not have mitochondria
2. Some human tissues have higher energy demands than others
3. Some human tissues can synthesize large amounts of ATP in absence of mitochondrial function
4. Heteroplasmy and subsequent segregation often leads to variegated phenotype

Solenocytes are found in:
Options:
1. Branchiostoma
2. Herdmania
3. Teleosts
4. Balanoglossus

Fossil records of vertebrates were found first in the rocks of:
Options:
1. Ordovician
2. Jurassic
3. Cambrian
4. Devonian
Question Number : 27  Question Id : 6589881227  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question
Sense organs in ostracoderm include:
Options:
1. Three nostrils
2. A single lateral and a median eye
3. A pair of nostrils
4. A pair of large lateral eyes, a median pineal eye and a median nostril

Question Number : 28  Question Id : 6589881228  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question
Nasohypophyseal sac of Petromyzontiformes is:
Options:
1. Open and not connected to pharynx
2. Closed and not connected to pharynx
3. Open and connected to pharynx
4. Closed and connected to pharynx

Question Number : 29  Question Id : 6589881229  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question
Air bladder serves as both a respiratory organ (lung) and a hydrostatic organ in:
Options:
1. Amia
2. Polypterus
3. Latimeria
Question Number : 30  Question Id : 6589881230  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
A fish lays fertilized eggs inside protective horny egg capsules, which remain anchored to seaweed by their long tendrils. This phenomenon is observed in:

Options:
1. Hippocampus
2. Scyllium
3. Tilapia
4. Pholis

Question Number : 31  Question Id : 6589881231  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
The jaw suspensorium in elasmobranchs is:

Options:
1. Hyostylic
2. Amphistylic
3. Autodiastylic
4. Autoxystylc

Question Number : 32  Question Id : 6589881232  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Nissel's granules are made up of:

Options:
1. DNA
Protein
3. Thymine
4. Ribonucleoprotein

Question Number: 33  Question Id: 6589881233  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1  Question Label: Multiple Choice Question
Femoral glands are found on the:
Options:
1. Ear of toads
2. Tail of birds
3. Thighs of male lizards
4. Scales of fish

Question Number: 34  Question Id: 6589881234  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1  Question Label: Multiple Choice Question
Protonephros is found in:
Options:
1. Larval cyclostomes
2. Reptiles
3. Fishes
4. Amphibians

Question Number: 35  Question Id: 6589881235  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1  Question Label: Multiple Choice Question
Polymerization of acrylamide can be initiated by:
Options:
Using a cross linking agent such as bis-acrylamide

Adding ammonium persulfate, TEMED and bis-acrylamide

Adding riboflavin in the mixture and exposing it to bright light for few hours

Both adding ammonium persulfate and TEMED and adding riboflavin in the mixture and exposing it to bright light for few hours

Question Number : 36  Question Id : 6589881236  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Which of the following methods is applied to sterilize e.g. enzymes, urea, ascorbic acid, some growth factors etc.

Options :
1. Autoclaving
2. Baking
3. Filtration
4. Solvent treatment

Question Number : 37  Question Id : 6589881237  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
SDS (Sodium dodecyl sulphate) is used while separating protein by SDS-PAGE since :

Options :
1. It decreases the surface tension of the buffer used for electrophoresis
2. It helps in solubilization of proteins and facilitates separation quickly
3. It stabilizes the protein
4. It binds to proteins and confers uniform negative charges and facilitates the mobility of proteins during electrophoresis
Question Number : 38  Question Id : 6589881238  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
What would be the limit of resolution in a compound microscope if λ used is 450nm, refractive index of medium = 1 and angular aperture sin 70° = 0.94?
Options :
1. approximately 430 nm
2. approximately 200 nm
3. approximately 380 nm
4. approximately 290 nm

Question Number : 39  Question Id : 6589881239  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
The reason why much higher resolution achieved by an electron microscope than a light microscope is:
Options :
1. The lenses used are of much higher quality
2. Very short wavelength of electrons
3. The images are viewed on screen rather than directly using an eye piece or ocular lens
4. Their higher magnification

Question Number : 40  Question Id : 6589881240  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes
Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Which one of the following factors will not have an effect on the sedimentation of a particle during centrifugation?
Options :
1. density of the solvent
2. Mass of sedimenting particle
Atmospheric pressure

Angular velocity of rotation

Question Number : 41  Question Id : 6589881241  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
What prevents proteolytic enzymes from digesting the exocrine cells in which they are produced and stored before release?
Options :
1. Protease inhibitors
2. Membrane
3. Zymogens
4. Salt

Question Number : 42  Question Id : 6589881242  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
The oxygen dissociation curve of hemoglobin to myoglobin is:
Options :
1. Sigmoid to hyperbolic
2. Hyperbolic to sigmoid
3. Linear to hyperbolic
4. Sigmoid to linear

Question Number : 43  Question Id : 6589881243  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
In the tubular lumen of the kidney, buffering of the renal filtrate is carried out by which of the following in order to facilitate greater secretion of protons:
Options :
1. $H_2PO_4^-$ and $NH_4^+$
2. Na⁺ and Cl⁻

3. H⁺ and HCO₃⁻

4. Na⁺/K⁺ ATPase

The lateral-line sensory system of fishes and amphibians, which detects motion, in the surrounding water, is based on which of the following types of cells?

Options:
1. Rod cells
2. Cones
3. Hair cells
4. Basement membrane cells

The most ancient voltage-gated ion channels are those that selectively allow ............. to cross the membrane, found throughout the animal kingdom and in most types of cells.

Options:
1. Na⁺
2. Cl⁻
3. K⁺
4. Ca²⁺
**Question 47**

During muscle contraction, in the presence of ATP, myosin and actin filaments associate and dissociate cyclically. The actin-myosin bond is stronger, when:

Options:
1. Myosin-ATP is converted to myosin-ADP-Pi
2. Myosin-ADP-Pi is converted to myosin + ADP+Pi
3. Actin binds to calcium (Ca²⁺)
4. Myosin binds to calcium (Ca²⁺)

**Question 48**

An individual has a parasite worm infection and another is responding to an allergen such as pollen. Which one of the following features would be common to both of them?

Options:
1. Increase in cytotoxic T cell population
2. Risk of developing an autoimmune disease
3. Reduced innate immune response
4. Increased level of IgE

**Question 49**

There are 5 classes of antibodies (IgM, IgD, IgG, IgE and IgA). What determines the class to which antibody belongs?

Options:
1. Structure of the light chain
2. Variable region of the antibody
Structure of the heavy chain constant region

Stages of infection

Question Number : 49  Question Id : 6589881249  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Immunological diversity in antibody is generated by :
Options :
1. Rearrangement of immunoglobulin genes
2. Alternative RNA processing
3. Post transcriptional modification
4. Post translational modification

Question Number : 50  Question Id : 6589881250  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Which of the following are examples of primary lymphoid organ ?
Options :
1. Spleen and lymph node
2. Lymph node and peyer's patches
3. Bone marrow and thymus
4. Tonsils and liver

Question Number : 51  Question Id : 6589881251  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
A genetic region found in all humans whose products primarily responsible for the rejection of grafts between individuals, is called :
Options :
1. Epitope
2. Antigen
3. Fc
4. Major histocompatibility complex

Question Number : 52  Question Id : 6589881252  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question  
A baby born to which one of these couples is most likely to suffer from haemolytic disease of newborns?

Options:
1. Rh + mother and Rh + father
2. Rh - mother and Rh - father
3. Rh + mother and Rh - father
4. Rh - mother and Rh + father

Question Number : 53  Question Id : 6589881253  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question  
Taxonomy deals with:

Options:
1. Identification of organisms
2. Classification of organisms
3. Diversity and existing relationship among the organisms
4. Identification, naming and classification of both plants and animals

Question Number : 54  Question Id : 6589881254  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question  
Which one of the following is *not* covered under Taxonomy?

Options:
1. Alpha taxonomy
2. Beta taxonomy
3. Delta taxonomy
4. Gamma taxonomy

Question Number : 55  Question Id : 6589881255  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Which one of the following species concepts believe that each morphological form be considered a separate species ?
Options :
1. Biological
2. Evolutionary
3. Ecological
4. Typological

Question Number : 56  Question Id : 6589881256  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Members of two species belong to a common genus and are morphologically very similar to each other but they are reproductively isolated. These two species are therefore referred as :
Options :
1. Sibling species
2. Allopatric species
3. Sympatric species
4. Subspecies

Question Number : 57  Question Id : 6589881257  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
A local population of a species or the community of potentially interbreeding individuals at a given locality form:

Options:
1. Subspecies
2. Variety
3. Deme
4. Species

Which one is correct match of the larval form to its group:

Options:
1. Brachiolaria - Asteroidea; Cysticercus - Cestoda; Planula - Jelly fish;
   Trochophore-Polychaeta
2. Brachiolaria - Trochophore; Cysticercus - Cestoda; Planula - Jelly fish;
   Asteroidea - Polychaeta
3. Brachiolaria - Asteroidea - Cysticercus - Jelly fish; Planula Cestoda;
   Trochophore - Polychaeta
4. Brachiolaria - Cestoda; Cysticercus - Asteroide; Planula-Polycheata;
   Trochophore-Jelly fish

In a population, a single nucleotide variant (SNV) will be called single nucleotide polymorphism (SNP) if:

Options:
1. It has a frequency of >0.5%
2. It has a frequency of >0.2%
3. It has a frequency of >1%
It has a frequency of <1%.

**Question Number : 60  Question Id : 6589881260  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes**

Correct Marks : 3  Wrong Marks : 1

**Question Label : Multiple Choice Question**

Fate of most mutations in the human genome determined by genetic drift is:

Options:
1. Neutral theory of evolution
2. Hardy-Weinberg equilibrium
3. Wright-Fisher model
4. Nearly neutral model

**Question Number : 61  Question Id : 6589881261  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes**

Correct Marks : 3  Wrong Marks : 1

**Question Label : Multiple Choice Question**

In which theory of speciation, a new species emerges from within the geographic range of its ancestor?

Options:
1. Allopatric speciation
2. Parapatric speciation
3. Sympatric speciation
4. Peripatric speciation

**Question Number : 62  Question Id : 6589881262  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes**

Correct Marks : 3  Wrong Marks : 1

**Question Label : Multiple Choice Question**

Calcium is used for the process of Osteogenesis in the presence of:

Options:
1. Calcitonin
2. Parathormone
Relaxin

Estrogen

Question Number : 63  Question Id : 6589881263  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question
If we perform hypophysectomy, which of the following hormone secretion will not be much affected:
Options:
1. Cortisol
2. Androgen
3. Estrogen
4. Aldosterone

Question Number : 64  Question Id : 6589881264  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question
Goitre can be caused due to:
Options:
1. Hyperthyroidism
2. Hypothyroidism
3. Both Hyperthyroidism and hypothyroidism
4. Hyper-parathyroidism

Question Number : 65  Question Id : 6589881265  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question
Addison's disease is characterized by:
Options:
1. Hyponatremia and hyperkalemia
2. Hyponatremia and hypokalemia
3. Hypernatremia and hyperkalemia
4. Hypercalcemia and hypernatremia

Question Number: 66  Question Id: 6589881266  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1  Question Label: Multiple Choice Question  
Vitamin D₃ is activated in:
Options:
1. Skin
2. Liver
3. Proximal convoluted tubular cells
4. Distal convoluted tubular cells

Question Number: 67  Question Id: 6589881267  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1  Question Label: Multiple Choice Question  
Vasopressin is mainly synthesized in:
Options:
1. Paraventricular nucleus
2. Arcuate nucleus
3. Supra-optic nucleus
4. Dorsomedian nucleus

Question Number: 68  Question Id: 6589881268  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1  Question Label: Multiple Choice Question  
Growth hormone of pituitary stimulates the growth of cartilage and bone through:
Options:
1. Somatomedins
2. Somatostatin
Somatocrinin

Liptrophin

Question Number : 69  Question Id : 6589881269  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1

Question Label : Multiple Choice Question

Ramesh is still suffering from the unexpected and tragic death of both of his parents in an automobile accident last month. Which of the following hormones listed is helping him to cope with this long-term stressor?

Options:
1. Glucocorticoids
2. Mineralocorticoids
3. Sex Hormones
4. Thyroxine

Question Number : 70  Question Id : 6589881270  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following statement regarding angiotensin II is wrong:

Options:
1. It increases vascular resistance
2. It increases vasopressin secretion
3. It increases salt appetite
4. It decreases thirst

Question Number : 71  Question Id : 6589881271  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1

Question Label : Multiple Choice Question

Conversion of Estrone to estradiol is catalyzed by:

Options:
1. 3β HSD
1. 17β HSD
2. 20α HSD
3. Aromatase

Question Number : 72  Question Id : 6589881272  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Iodide is trapped into thyroid follicular cells via:
Options:
1. Simple diffusion
2. Facilitated diffusion
3. Primary active transporter
4. Secondary active transporter

Question Number : 73  Question Id : 6589881273  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Which of the following statement regarding glucocorticoids is not true?
Options:
1. It increase glucose utilization by muscles
2. It increases lipolysis
3. It increases glycogen storage in the liver
4. It promotes gluconeogenesis in the liver

Question Number : 74  Question Id : 6589881274  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Evolutionary convergence is development of:
Options:
1. Common set of character in group of different ancestry
2. Dissimilar character in closely related groups

3. Common set of characters in closely related groups

4. Random mating

Question Number : 75  Question Id : 6589881275  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Which of the following evidences does not favour the Lamarckian concept of inheritance of acquired characters?
Options:
1. Lack of pigment in cave-dwelling animals

2. Melanization in peppered moth

3. Absence of limbs in snakes

4. Presence of webbed toes in aquatic birds

Question Number : 76  Question Id : 6589881276  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes
Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Which evidence of evolution is related to Darwin’s finches?
Options:
1. Evidences from biogeographical distribution

2. Evidences from comparative anatomy

3. Evidences from embryology

4. Evidences from paleontology
You have over 10,000 gold fish in one large tank but, due to an electrical problem, 95% of the fish perish one night. The remaining 5% are left to breed and repopulate, passing their genes and traits on to future generations. What type of genetic drift would this be considered?

Options:
1. Bottleneck event
2. Founder effect
3. Extinction
4. Natural selection

---

If brief periods of changes interrupt long periods of stasis, this process of evolution is called as:

Options:
1. Speciation
2. Mutation pressure
3. Genetic pressure
4. Punctuated equilibrium model

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The ability to taste phenylthiocarbazide (PTC) is a trait controlled by 2 alleles (PTC taster and PTC non-taster). Suppose 36% of a remote mountain village cannot taste PTC and must, therefore, be homozygous recessive (aa) for the PTC non-taster allele. If this population conforms to Hardy-Weinberg expectations for this gene, what percentage of the population must be homozygous (AA) for the PTC taster allele?

Options:
1. 48%
Question Number : 80  Question Id : 6589881280  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
The two key factors responsible for speciation among populations are:
Options:
1. Mutation and heterozygote disadvantage
2. Reproductive isolation and genetic divergence
3. Postzygotic isolation and morphological change
4. Mutation and genetic drift

Question Number : 81  Question Id : 6589881281  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
Cells are able to specifically synthesize the L isomers of amino acids, because:
Options:
1. The active sites of enzymes concerned are asymmetric
2. D isomers of amino acids are found in a few small peptides
3. All molecules with a chiral centre are optically active
4. Formation of stable substructures in proteins requires amino acids of one stereochemical series

Question Number : 82  Question Id : 6589881282  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1
Question Label : Multiple Choice Question
In a titration experiment, the pK<sub>1</sub>, pI and pK<sub>2</sub> of Glycine was found to be equal to 2.34, 5.97 and 9.60, respectively. The pK<sub>1</sub> refers to the titration of:
1. -NH₃⁺ group
2. R-group
3. -COOH group
4. -CH₂ group

Which one will show much broader range of allowed conformations as per Ramachandran Plot?

Options:
1. Val
2. Thr
3. Gly
4. Pro

Which of the following is an example of the high-energy phosphate compound formed in Glycolysis?

Options:
1. Glucose - 6-phosphate
2. 1,3-bisphosphoglycerate
3. Glyceraldehyde 3-phosphate
4. Dihydroxy acetone phosphate
In animals, plants and many microbial cells, 2 acetyl-CoA is converted to 4 CO₂ + 4H₂O by which of the following?

Options:
1. Glycolysis
2. Citric acid cycle
3. Pentose phosphate pathway
4. Anaerobic glycolysis

Glycogen phosphorylase enzyme attacks which of the following sites in glycogen to release glucose-1-phosphate?

Options:
1. α 1 → 4 glycosidic linkage
2. α 1 - 6 glycosidic branch point
3. Glucose - 6 - phosphate
4. Glucose - 1 phosphate

Catalysis by enzymes affects:

Options:
1. Reaction equilibria
2. Reaction rates
3. Forward reactions
4. Reverse reactions
Hexokinase from brain has the Km values of 0.4, 0.05 and 1.5 mM, for ATP, D-Glucose and D-Fructose, respectively. If in a reaction mixture, the enzyme is presented with 0.1 to 0.4 mM of all the three substrates step by step, which one will bind the enzyme first?

Options:
1. ATP
2. D-Glucose
3. D-Fructose
4. ATP and D-Glucose

Steroid hormones are derived from which of the following lipids?

Options:
1. Fatty acids
2. Phospholipids
3. Triacylglycerol
4. Cholesterol

In the 'Genetic Code', which of the following is considered to be the "Wobble base"?

Options:
1. 1st base of the codon
2. 2nd base of the codon
3. 3rd base of the codon
3rd base of the anticodon

Question Number: 91  Question Id: 6589881291  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1

Question Label: Multiple Choice Question

Which of the following is involved in the 'proof-reading' process during protein synthesis is E. coli?

Options:
1. IF2- GTP and initiation codon
2. EF-Tu - GTP and Codon-anticodon interaction
3. EF-G-GTP and translocation
4. RF1 and termination

Question Number: 92  Question Id: 6589881292  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1

Question Label: Multiple Choice Question

Primase activity is:

Options:
1. Primer dependent
2. Primer independent
3. Primer and template dependent
4. Primer and coenzyme dependent

Question Number: 93  Question Id: 6589881293  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes  Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No  Control Enable: Yes  Correct Marks: 3  Wrong Marks: 1

Question Label: Multiple Choice Question

Female lac insect is:

Options:
1. Oviparous
2. Ovo-viviparous
3. Viviparous
Cropping

Question Number : 94  Question Id : 6589881294  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1

Question Label : Multiple Choice Question
It is most popular of the American breeds, imported to India because of its hardy nature as it can survive in damp, dry or rainy regions. Identify the breed with these characteristics:

Options:
1. Rhode Island Red
2. Rhode Island White
3. Wyandotte
4. Plymouth Rock

Question Number : 95  Question Id : 6589881295  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1

Question Label : Multiple Choice Question
Which one of the following is not fermented beverages?

Options:
1. Kefir
2. Buttermilk
3. Leban
4. Koumiss

Question Number : 96  Question Id : 6589881296  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1

Question Label : Multiple Choice Question
The members of which class of phylum Cnidaria occur only as polyps?

Options:
1. Hydrozoa
2. Scyphozoa
3. Anthozoa

4. Cubozoa

The structural material of sponge i.e. spicules, spongin are manufactured by:

Options:
1. Pore cells
2. Epidermal cells
3. Choanocytes
4. Scleroblast cells

Members of which flatworm class are nonparasitic:

Options:
1. Turbellaria
2. Trematoda
3. Cestoda
4. Monogenea

The larvae of many common tapeworm species that infect humans are usually found:

Options:
1. Encysted in freshwater snails
2. Encysted in the muscles of an animal, such as cow or pig
3. Crawling in the abdominal blood vessels of cows and pigs
4. Encysted in human brain

Question Number : 100  Question Id : 6589881300  Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No Control Enable : Yes Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question
Protozoa that have an open circulatory system and an exoskeleton of chitin are part of which phylum?
Options :
1. Cnidaria
2. Annelida
3. Mollusca
4. Arthropoda

Question Number : 101  Question Id : 6589881301  Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No Control Enable : Yes Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question
Common feature between Porifera, Cnidaria, Ctenophora and Platyhelminthes is:
Options :
1. Bilateral symmetry
2. Eumetazoans
3. Absence of coelom
4. Presence of organs

Question Number : 102  Question Id : 6589881302  Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No Control Enable : Yes Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question
The echinoderms are related to chordates by their similarity in the development of:
Options :
1. Gut
2. Nervous system
3. Heart
4. Coelom

The vegetative phase of *Plasmodium* in RBC of man is called as:

Options:
1. Sporozoite
2. Trophozoite
3. Merozoite
4. Cryptozoite

The first segment of *Nereis* is:

Options:
1. Peristomium
2. Prostomium
3. Pygidium
4. None

*Wuchereria bancrofti* is transmitted by:

Options:
1. Anopheles
2. Culex
3. Tsetse fly
4. Sand fly

Question Number: 106  Question Id: 6589881306  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes
Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No
Control Enable: Yes
Correct Marks: 3  Wrong Marks: 1
Question Label: Multiple Choice Question
Tape worm is a digenetic parasite. Its intermediate host is:
Options:
1. Goat
2. Human beings
3. Pig
4. Buffalo

Question Number: 107  Question Id: 6589881307  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes
Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No
Control Enable: Yes
Correct Marks: 3  Wrong Marks: 1
Question Label: Multiple Choice Question
The "totipotent" cells of sponges are:
Options:
1. Choanocytes
2. Archaeocytes
3. Thesocytes
4. Trophocytes

Question Number: 108  Question Id: 6589881308  Question Type: MCQ  Option Shuffling: Yes  Display Question Number: Yes
Single Line Question Option: No  Option Orientation: Vertical  Allowed Progression: Yes  Number of Replay: 999  Play On Load: No
Control Enable: Yes
Correct Marks: 3  Wrong Marks: 1
Question Label: Multiple Choice Question
Which of the following is not the functional unit of ecosystem?
Options:
1. Productivity
2. Stratification
3. Energy flow
4. Decomposition

Question Number : 109  Question Id : 6589881309  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question  
Which of the following is not a gaseous biogeochemical cycle in ecosystem?  
Options :  
1. Nitrogen cycle  
2. Carbon cycle  
3. Sulphur cycle  
4. Phosphorus cycle

Question Number : 110  Question Id : 6589881310  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question  
Considering population pyramid, left hand side of pyramid is used to show:  
Options :  
1. Female population  
2. Male population  
3. Birth rate  
4. Mortality rate

Question Number : 111  Question Id : 6589881311  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1  
Question Label : Multiple Choice Question
Which among the following awards instituted by the Government of India for individuals or communities from rural areas that have shown extraordinary courage and dedication in protecting wildlife?

Options:
1. Indira Gandhi Paryavaran Puraskar
2. Medini Puruskar Yojana
3. Amrita Devi Bishnoi Award
4. Pitamber Pant National Award

Which group of vertebrates comprises the highest number of endangered species?

Options:
1. Mammals
2. Fish
3. Reptiles
4. Birds

Aqueduct of Sylvius is found in:

Options:
1. Liver
2. Brain
3. Kidney
4. Spleen
Which among the following chronic lung disease commonly known as 'black lung' disease, leads to reduced life expectancy in coal-miners?

Options:
1. Pneumoconiosis
2. Progressive massive fibrosis
3. Mesothelioma
4. Collier's Asthma

Each of the following parasites is transmitted by mosquitoes except:

Options:
1. *Leishmania donovani*
2. *Wuchereria bancrofti*
3. *Plasmodium vivax*
4. *Plasmodium falciparum*

Fish is intermediate host for the:

Options:
1. *Taenia solium*
2. *Echinococcus granulosus*
3. *Diphyllobothrium latum*
**Taenia saginata**

Question Number : 117  Question Id : 6589881317  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1

Question Label : Multiple Choice Question

Pigs or dogs are the source of human infection for each of the following parasites except :

Options :
1. *Trichinella spirali*
2. *Taenia solium*
3. *Echinococcus granulosus*
4. *Ascaris lumbricoides*

Question Number : 118  Question Id : 6589881318  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1

Question Label : Multiple Choice Question

Laboratory diagnosis of *Entamoeba histolytica* depends on identification in the :

Options :
1. blood
2. urine
3. saliva
4. stool

Question Number : 119  Question Id : 6589881319  Question Type : MCQ  Option Shuffling : Yes  Display Question Number : Yes  Single Line Question Option : No  Option Orientation : Vertical  Allowed Progression : Yes  Number of Replay : 999  Play On Load : No  Control Enable : Yes  Correct Marks : 3  Wrong Marks : 1

Question Label : Multiple Choice Question

Sub-tertiary Malaria is cause by :

Options :
1. *Plasmodium falciparum*
2. *Plasmodium ovale*
Identify which of the listed parasites is *not* an ectoparasite:

Options:

1. Roundworm

2. Cheyletiella mites

3. Fleas

4. Ticks