CAREERS360
PREPARATION Series

CUET 2025

Life Science
Question paper 2025

NTA CUET PG ENTRANCE EXAM_13th March to 01st April 2025

Application No	
Candidate Name	
Roll No.	
Test Date	27/03/2025
Test Time	4:00 PM - 5:30 PM
Subject	LIFE SCIENCE

Section : **Life Science**

Q.1 Which of the following pair of class and organism is not correctly matched?

1. Polyplacophora- *Chiton*
2. Gastropoda - *Aplysia*
3. Monoplacophora - *Chiton*
4. Aplacophora - *Chaetoderma*

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982884**
Option 1 ID : **30169811461**
Option 2 ID : **30169811462**
Option 3 ID : **30169811463**
Option 4 ID : **30169811464**
Status : **Not Answered**
Chosen Option : **--**

Q.2 Among the following species of bryophytes, which is not an example of mosses?

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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982927**
Option 1 ID : **30169811633**
Option 2 ID : **30169811634**
Option 3 ID : **30169811635**
Option 4 ID : **30169811636**
Status : **Answered**
Chosen Option : **4**

Q.3 Who among the following is known as the father of Indian paleobotany?

1. Prof. Bhishma Sahni
2. Prof. Balraj Sahni
3. Prof. Birbal Sahni
4. Prof. Birpal Sahni

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982928**
Option 1 ID : **30169811637**
Option 2 ID : **30169811638**
Option 3 ID : **30169811639**
Option 4 ID : **30169811640**
Status : **Not Answered**
Chosen Option : **--**

Q.4 To observe the specific part of a tissue section under compound microscope, the contrast can be increased by:

1. Staining
2. Changing magnification of the microscope
3. Changing microscope resolution
4. Use of fluorescence dyes

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982869**
Option 1 ID : **30169811401**
Option 2 ID : **30169811402**
Option 3 ID : **30169811403**
Option 4 ID : **30169811404**
Status : **Answered**
Chosen Option : **1**

Q.5 Which of the following amino acids are essential amino acids in humans:

A. Leucine
B. Lysine
C. Isoleucine
D. Serine

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

1. A, B, and C Only

2. B, C, and D Only

3. A, B, C and D

4. A, C, and D Only

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982886**
Option 1 ID : **30169811469**
Option 2 ID : **30169811470**
Option 3 ID : **30169811471**
Option 4 ID : **30169811472**
Status : **Not Answered**
Chosen Option : **--**

Q.6 A method for culturing anaerobes is the GasPak System, which uses hydrogen and a _____ catalyst to remove O_2.

1. Rubidium

2. Lead

3. Iridium

4. Palladium

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982897**
Option 1 ID : **30169811513**
Option 2 ID : **30169811514**
Option 3 ID : **30169811515**
Option 4 ID : **30169811516**
Status : **Not Answered**
Chosen Option : **--**

Q.7 Lenticels permit the:

1. Exchange of water between the outer atmosphere and internal tissue of the stem in most woody trees.
2. Exchange of gases between the outer atmosphere and internal tissue of the stem in most woody trees.
3. Exchange of heat between the outer atmosphere and internal tissue of the stem in most woody trees.
4. Exchange of radiation between the outer atmosphere and internal tissue of the stem in most woody trees.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982933**
Option 1 ID : **30169811657**
Option 2 ID : **30169811658**
Option 3 ID : **30169811659**
Option 4 ID : **30169811660**
Status : **Not Answered**
Chosen Option : **--**

Q.8 Which of the following are autosomal recessive genetic disorder?

A. Huntington disease
B. Sickle cell anemia
C. Lesch–Nyhan syndrome
D. Tay-Sachs disease

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

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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982938**
Option 1 ID : **30169811677**
Option 2 ID : **30169811678**
Option 3 ID : **30169811679**
Option 4 ID : **30169811680**
Status : **Answered**
Chosen Option : **4**

Q.9 The membrane potential of a resting neuron is:

1. -20 and -60 millivolts

2. -30 and -80 millivolts

3. -20 and -80 millivolts

4. -60 and -80 millivolts

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982934**
Option 1 ID : **30169811661**
Option 2 ID : **30169811662**
Option 3 ID : **30169811663**
Option 4 ID : **30169811664**
Status : **Not Answered**
Chosen Option : **--**

Q.10 Which of the following statement is **wrong** about C_4 plants

1. Kranz anatomy is present

2. Initial CO_2 acceptor is Phosphoenol-pyruvate (PEP)

3. First stable product is 3-phosphoglycerate

4. Calvin cycle operates along with the Hatch and Slack cycle.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982911**
Option 1 ID : **30169811569**
Option 2 ID : **30169811570**
Option 3 ID : **30169811571**
Option 4 ID : **30169811572**
Status : **Answered**
Chosen Option : **4**

Q.11 The glycosidic bond between the monomers of sucrose is–

1. Gal(1β ↔ β4)Glc

2. Fru(4β ↔ β1)Glc

3. Fru(4β ↔ α2)Glc

4. Fru(2β ↔ α1)Glc

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982888**
Option 1 ID : **30169811477**
Option 2 ID : **30169811478**
Option 3 ID : **30169811479**
Option 4 ID : **30169811480**
Status : **Not Answered**
Chosen Option : **--**

Q.12 Which one of the following amino acids is involved in synthesis of hormone epinephrine in humans?

1. Threonine

2. Tryptophan

3. Tyrosine

4. Phenylalanine

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982935**
Option 1 ID : **30169811665**
Option 2 ID : **30169811666**
Option 3 ID : **30169811667**
Option 4 ID : **30169811668**
Status : **Not Answered**
Chosen Option : **--**

Q.13 Which one of the following groups of animal is devoid of gill slits?

1. Osteichthyes
2. Cyclostomata and Chondrichthyes
3. Echinodermata
4. Adult Amphibians

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982942**
Option 1 ID : **30169811693**
Option 2 ID : **30169811694**
Option 3 ID : **30169811695**
Option 4 ID : **30169811696**
Status : **Not Answered**
Chosen Option : **--**

Q.14 Tryptophan, tyrosine and phenylalanine, absorb ultraviolet light. Therefore, the protein rich in these amino acids strongly absorbs the light of wavelength _____ due to aromatic side chain of these amino acids.

1. 90 nm
2. 420 nm
3. 550 nm
4. 280 nm

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982874**
Option 1 ID : **30169811421**
Option 2 ID : **30169811422**
Option 3 ID : **30169811423**
Option 4 ID : **30169811424**
Status : **Answered**
Chosen Option : **3**

Q.15 For sterilization, the culture media and glasswares must be generally autoclaved at:

1. 121°C and 19 psi

2. 121°C and 15 psi

3. 112°C and 15 psi

4. 120°C and 20 psi

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982893**
Option 1 ID : **30169811497**
Option 2 ID : **30169811498**
Option 3 ID : **30169811499**
Option 4 ID : **30169811500**
Status : **Answered**
Chosen Option : **4**

Q.16 Choose the correct order of steps involved in nucleotide excision repair of damaged bases as their occur.

A. A fresh burst of DNA synthesis
B. Cuts are made on both the 3' side and the 5' side of the damaged area
C. The DNA is unwound producing a "bubble".
D. A DNA ligase covalent binds the fresh piece into the backbone.

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

1. A, B, C, D

2. B, C, A, D

3. C, B, A, D

4. A, B, D, C

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982920**
Option 1 ID : **30169811605**
Option 2 ID : **30169811606**
Option 3 ID : **30169811607**
Option 4 ID : **30169811608**
Status : **Answered**
Chosen Option : **2**

Q.17 Which one of the following proteins is often referred to as "the guardian of the genome"?

1. PFU
2. Rb
3. Myc
4. p53

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982939**
Option 1 ID : **30169811681**
Option 2 ID : **30169811682**
Option 3 ID : **30169811683**
Option 4 ID : **30169811684**
Status : **Answered**
Chosen Option : **1**

Q.18 The *Bdellovibrios* bacteria is a _____ bacteria:

A. Gram negative
B. Predator of gram negative bacteria
C. It has a single polar flagellum
D. Reproduce by producing spores called myxospore during nutrient deficit conditions

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

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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982895**
Option 1 ID : **30169811505**
Option 2 ID : **30169811506**
Option 3 ID : **30169811507**
Option 4 ID : **30169811508**
Status : **Answered**
Chosen Option : **4**

Q.19 The symmetry in which a flower can be divided into two equal and similar halves by only one vertical division is

1. Actinomorphic
2. Polymorphic
3. Metamorphic
4. Zygomorphic

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982929**
Option 1 ID : **30169811641**
Option 2 ID : **30169811642**
Option 3 ID : **30169811643**
Option 4 ID : **30169811644**
Status : **Answered**
Chosen Option : **1**

Q.20 Which one of the following acid is hydrophobic with non polar side chain?

1. Tyrosine
2. Proline
3. Glutamine
4. Serine

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982919**
Option 1 ID : **30169811601**
Option 2 ID : **30169811602**
Option 3 ID : **30169811603**
Option 4 ID : **30169811604**
Status : **Not Answered**
Chosen Option : **--**

Q.21 The role of slow sand filters in water treatment facilities is:

1. To remove water borne microbes upto a set standard.

2. To remove excess ammonia present in the polluted water

3. To evaluate the microbiological characteristics of water.

4. To neutralize the increased pH of the water.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982908**
Option 1 ID : **30169811557**
Option 2 ID : **30169811558**
Option 3 ID : **30169811559**
Option 4 ID : **30169811560**
Status : **Not Answered**
Chosen Option : **--**

Q.22 Select correct statement about Euchromatin :

1. Highly condensed

2. Associated with active transcription

3. Found outside nucleus only

4. Does not replicate during S phase

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982880**
Option 1 ID : **30169811445**
Option 2 ID : **30169811446**
Option 3 ID : **30169811447**
Option 4 ID : **30169811448**
Status : **Answered**
Chosen Option : **2**

Q.23 Which one of the given statement is not correct about plant viruses ?

1. In viruses, the envelope proteins may even project from the envelope surface as spikes are also called as protomers
2. In viruses, the envelope proteins may even project from the envelope surface as spikes are also called as concatemers
3. In viruses, the envelope proteins may even project from the envelope surface as spikes are also called as peplomers.
4. In viruses, the envelope proteins may even project from the envelope surface as spikes are also called as capsomers

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982906**
Option 1 ID : **30169811549**
Option 2 ID : **30169811550**
Option 3 ID : **30169811551**
Option 4 ID : **30169811552**
Status : **Answered**
Chosen Option : **1**

Q.24 The ability of a molecule to function as an antigen depends on its:

A. Size
B. Structural complexity
C. Chemical nature
D. Degree of foreign nature to the host

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

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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982901**
Option 1 ID : **30169811529**
Option 2 ID : **30169811530**
Option 3 ID : **30169811531**
Option 4 ID : **30169811532**
Status : **Answered**
Chosen Option : **4**

Q.25 Match **LIST-I** with **LIST-II**

LIST-I **Genes involved in *E.coli* DNA replication**		**LIST-II** **Product or role**	
A.	pol A	I.	Helicase at OriC
B.	pol B	II.	Primase
C.	Dna G	III.	DNA polymerase II
D.	Dna B & C	IV.	DNA polymerase I

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

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

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

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

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982889**
Option 1 ID : **30169811481**
Option 2 ID : **30169811482**
Option 3 ID : **30169811483**
Option 4 ID : **30169811484**
Status : **Answered**
Chosen Option : **2**

Q.26 Choose the correct sequence of different regions on a typical eukaryotic DNA segment when we go from the upstream to the downstream of a transcription start point.

A. Initiation site
B. CAAT box
C. Enhancer
D. TATA box

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

1. B, D, A, C

2. A, C, B, D

3. B, A, D, C

4. C, B, D, A

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982918**
Option 1 ID : **30169811597**
Option 2 ID : **30169811598**
Option 3 ID : **30169811599**
Option 4 ID : **30169811600**
Status : **Answered**
Chosen Option : **3**

Q.27 Match **LIST-I** with **LIST-II**

	LIST-I Diseases		**LIST-II Causative agents**
A.	Wool sorter's disease	I.	*E.coli*
B.	Gas gangrene	II.	Human papilloma virus
C.	Urinary tract infection	III.	*Bacillus anthracis*
D.	Cervical cancer	IV.	*Clostridum perfringens*

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

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

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

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

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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982936**
Option 1 ID : **30169811669**
Option 2 ID : **30169811670**
Option 3 ID : **30169811671**
Option 4 ID : **30169811672**
Status : **Answered**
Chosen Option : **4**

Q.28 Match **LIST-I** with **LIST-II**

	LIST-I **Types of DNA Repair Systems in *E. coli***		**LIST-II** **Enzymes/proteins**
A.	Mismatch repair	I.	Dam methylase
B.	Base-excision repair	II.	ABC excinuclease
C.	Nucleotide-excision repair	III.	AP endonucleases
D.	Direct repair	IV.	DNA photolyases

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

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

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

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

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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982921**
Option 1 ID : **30169811609**
Option 2 ID : **30169811610**
Option 3 ID : **30169811611**
Option 4 ID : **30169811612**
Status : **Not Answered**
Chosen Option : **--**

Q.29 The antimicrobial agent mercuric chloride functions by

1. Interfering with cellular oxidation process.

2. Inhibiting the enzymes which contain the sulfhydryl group.

3. Alkylation reactions with organic compounds such as enzymes and other proteins.

4. Denaturation of proteins, interference with glycolysis and membrane damage.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982898**
Option 1 ID : **30169811517**
Option 2 ID : **30169811518**
Option 3 ID : **30169811519**
Option 4 ID : **30169811520**
Status : **Answered**
Chosen Option : **3**

Q.30 Convalescent sera belongs to

1. Sera from healthy individual
2. Sera of patients chronically infected with bacterial disease
3. Sera of patients recovering from infectious disease
4. Sera of patients in the latent phase of infection

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982904**
Option 1 ID : **30169811541**
Option 2 ID : **30169811542**
Option 3 ID : **30169811543**
Option 4 ID : **30169811544**
Status : **Not Answered**
Chosen Option : **--**

Q.31 Match **LIST-I** with **LIST-II**

	LIST-I Vitamins		**LIST-II Major function in the body**
A.	B7 (Biotin)	I.	Used in collagen synthesis
B.	B12 (Cobalamin)	II.	Important in blood clotting
C.	C (Ascorbic acid)	III.	Coenzyme in synthesis of fat, glycogen and amino acids
D.	K (Phylloquinone)	IV.	Production of nucleic acids and red blood cells

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

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

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

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

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

Options 1. 1

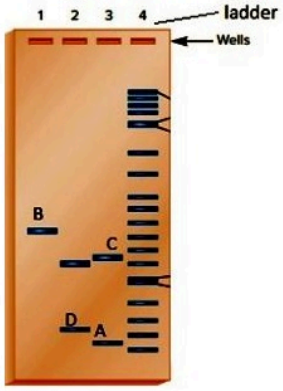
2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982887**
Option 1 ID : **30169811473**
Option 2 ID : **30169811474**
Option 3 ID : **30169811475**
Option 4 ID : **30169811476**
Status : **Answered**
Chosen Option : **4**

Q.32 Arrange the following DNA fragments A, B, C, D separated after Gel Electrophoresis in increasing order of number of their base pairs



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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982871**
Option 1 ID : **30169811409**
Option 2 ID : **30169811410**
Option 3 ID : **30169811411**
Option 4 ID : **30169811412**
Status : **Answered**
Chosen Option : **2**

Q.33 Which of the following is **not** true about gel electrophoresis?

1. Gel electrophoresis can be used to separate nucleic acids or proteins.
2. Agarose and polyacrylamide are routinely used in gel electrophoresis.
3. In gel electrophoresis of DNA, the digested DNA fragments move toward the negative electrode of the tank.
4. In gel electrophoresis of DNA, ethidium bromide, a DNA binding dye, is used to locate the DNA fragments of interest under UV light.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982872**
Option 1 ID : **30169811413**
Option 2 ID : **30169811414**
Option 3 ID : **30169811415**
Option 4 ID : **30169811416**
Status : **Answered**
Chosen Option : **1**

Q.34 In 1963, several varieties such as Sonalika and Kalyan Sona were introduced all over the wheat-growing belt in India. They were

1. High yielding and disease susceptible
2. Low yielding and disease susceptible
3. High yielding and disease resistant
4. Low yielding and disease resistant

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982926**
Option 1 ID : **30169811629**
Option 2 ID : **30169811630**
Option 3 ID : **30169811631**
Option 4 ID : **30169811632**
Status : **Not Answered**
Chosen Option : **--**

Q.35 The Ti plasmid and its T-DNA have been genetically modified for use as a vector for the insertion of recombinant DNA into plant chromosomes to prevent dicots from tumor diseases. The source of Ti plasmid is:

1. *Asparagus sp.*
2. *Arthrobacter luteus*
3. *Aspergillus niger*
4. *Agrobacterium tumefaciens*

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982900**
Option 1 ID : **30169811525**
Option 2 ID : **30169811526**
Option 3 ID : **30169811527**
Option 4 ID : **30169811528**
Status : **Answered**
Chosen Option : **4**

Q.36 Which of the following statements are correct regarding prokaryotic genomic organization?

A. Most prokaryotes contain a single large circle of double stranded DNA as its genome.
B. The nucleoid is an irregularly shaped region that contains the cell's chromosome and numerous proteins.
C. Nucleoid associated proteins (NAPs) are not particularly important during cell division for the compaction of chromosome.
D. Prokaryotic genomes are much smaller as compared to eukaryotes.

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

1. A, B and D only

2. A, B and C only

3. A, B, C and D

4. B, C and D only

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982878**
Option 1 ID : **30169811437**
Option 2 ID : **30169811438**
Option 3 ID : **30169811439**
Option 4 ID : **30169811440**
Status : **Not Answered**
Chosen Option : **--**

Q.37 Match **LIST-I** with **LIST-II**

	LIST-I Bacterial DNA replication proteins		**LIST-II Functions**
A.	Helicase	I.	Removes RNA nucleotides of primer from 5' end and replaces them with DNA nucleotides added to 3' end of adjacent fragment.
B.	DNA pol I	II.	Unwinds parental double helix at replication forks.
C.	DNA pol III	III.	Relieves overwinding strain ahead of replication forks by breaking, swiveling, and rejoining DNA strands.
D.	Topoisomerase	IV.	Using parental DNA as a template, synthesis new DNA strand by adding nucleotides to a RNA primer or a pre-existing DNA strand.

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

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

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

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

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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982914**
Option 1 ID : **30169811581**
Option 2 ID : **30169811582**
Option 3 ID : **30169811583**
Option 4 ID : **30169811584**
Status : **Answered**
Chosen Option : **3**

Q.38 Match the **LIST-I** with **LIST-II**

	LIST-I Types of Chromosome		**LIST-II Position of centromere**
A.	Metacentric chromosome	I.	The centromere is located on one side of the central point of the chromosome.
B.	Submetacentric chromosome	II.	The centromere appears to be located at one end of the chromosome.
C.	Acrocentric chromosome	III.	The centromere is located in the center of chromosome.
D.	Telocentric chromosome	IV.	The centromere is located close to one end of the chromosome.

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

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

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

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

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982881**
Option 1 ID : **30169811449**
Option 2 ID : **30169811450**
Option 3 ID : **30169811451**
Option 4 ID : **30169811452**
Status : **Answered**
Chosen Option : **3**

Q.39 Choose the correct sequence of events as they occur during a bacterial transcription

A. RNA polymerase sigma (σ) subunits recognizes promoters
B. DNA double helix unwind
C. Sigma (σ) subunit dissociates from the holoenzyme
D. Formation of hairpin secondary structure

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

1. A, B, C, D

2. A, C, B, D

3. B, A, D, C

4. C, B, D, A

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982916**
Option 1 ID : **30169811589**
Option 2 ID : **30169811590**
Option 3 ID : **30169811591**
Option 4 ID : **30169811592**
Status : **Answered**
Chosen Option : **1**

Q.40 Organisms belongs to the genus bacteroides are:

1. Chemoautotrophs, aerobic and gram positive.

2. Causative agents of Lyme diseases.

3. Anaerobic, gram-negative, nonspore-forming rods and usually nonmotile.

4. Not able to degrade cellulose, pectins, and other complex carbohydrates.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982896**
Option 1 ID : **30169811509**
Option 2 ID : **30169811510**
Option 3 ID : **30169811511**
Option 4 ID : **30169811512**
Status : **Not Answered**
Chosen Option : **--**

Q.41 Choose the correct answer regarding the translation of mRNA to proteins when AUG is the start codon and codes for methionine.

1. All proteins have methionine as the first amino acids.

2. Methionine never added at the beginning of protein synthesis.

3. An enzyme can cleave the methionine amino acid from the polypeptide after synthesis.

4. Methionine fall off automatically from the polypeptide just after termination step of the protein synthesis.

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982917**
Option 1 ID : **30169811593**
Option 2 ID : **30169811594**
Option 3 ID : **30169811595**
Option 4 ID : **30169811596**
Status : **Not Answered**
Chosen Option : **--**

Q.42 Benzoic acid or benzoates are used to preserve food from

A. Insects
B. Yeast
C. Clostridia
D. Molds

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

1. A and B only

2. B and C only

3. A, C and D only

4. B and D only

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982894**
Option 1 ID : **30169811501**
Option 2 ID : **30169811502**
Option 3 ID : **30169811503**
Option 4 ID : **30169811504**
Status : **Answered**
Chosen Option : **4**

Q.43 A rock body through which ground water flows is called

1. Lake

2. Artesian well

3. Springs

4. Aquifer

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982913**
Option 1 ID : **30169811577**
Option 2 ID : **30169811578**
Option 3 ID : **30169811579**
Option 4 ID : **30169811580**
Status : **Answered**
Chosen Option : **3**

Q.44 Match **LIST-I** with **LIST-II**

LIST-I Immunoglobin class		**LIST-II Characterstics**	
A.	IgG	I.	Serves as part of B-cell receptor complex
B.	IgA	II.	Anaphylactic mediating antibody
C.	IgD	III.	Most abundant in body fluid, neutralize toxins, opsonizes bacteria
D.	IgE	IV.	Secretary antibody and protect mucous membrane.

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

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

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

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

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982902**
Option 1 ID : **30169811533**
Option 2 ID : **30169811534**
Option 3 ID : **30169811535**
Option 4 ID : **30169811536**
Status : **Answered**
Chosen Option : **4**

Q.45 Plants can assimilate only two inorganic forms of nitrogen. These are:

A. Nitrite (NO_2^-)

B. Ammonium (NH_4^+)

C. Nitric acid (HNO_3)

D. Nitrate (NO_3^-)

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

1. A and D only

2. B and D only

3. B, C and D only

4. A, B and D only

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982932**
Option 1 ID : **30169811653**
Option 2 ID : **30169811654**
Option 3 ID : **30169811655**
Option 4 ID : **30169811656**
Status : **Answered**
Chosen Option : **4**

Q.46 Arrange the steps of recombinant DNA-cloning procedure in correct sequence of their occurance:

A. Joining the target DNA with cloning vector DNA by ligase enzyme.
B. Targeted DNA from a source organism is cleaved and cloning vector DNA is also cleaved by the same restriction endonuclease.
C. Selection of transformants from non-transformants through antibiotic resistance and color indicators
D. Introduction of recombinant DNA into host cell.

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

1. A, B, C, D

2. A, C, B, D

3. B, A, D, C

4. C, B, D, A

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982890**
Option 1 ID : **30169811485**
Option 2 ID : **30169811486**
Option 3 ID : **30169811487**
Option 4 ID : **30169811488**
Status : **Answered**
Chosen Option : **3**

Q.47 Which one of the following granulocyte has following features?
Highly phagocytic; nucleus with three to five lobes; primary and secondary granules; limited life span:

1. Eosinophil
2. Mast cells
3. Neutrophil
4. Basophil

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982937**
Option 1 ID : **30169811673**
Option 2 ID : **30169811674**
Option 3 ID : **30169811675**
Option 4 ID : **30169811676**
Status : **Answered**
Chosen Option : **4**

Q.48 Tetracycline is usually mixed with the culturing medium as selective agents in selecting transformants in gene cloning technique. It acts by:

1. Inhibiting cell wall formation; inactivated by β-lactamase
2. Binding to the 30S ribosomal subunit and inhibits the binding of aminoacyl-tRNAs in bacteria
3. Blocking protein initiation complex formation and causes misreading during translation
4. Binding to 50S ribosomal subunit and inhibits protein synthesis.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982891**
Option 1 ID : **30169811489**
Option 2 ID : **30169811490**
Option 3 ID : **30169811491**
Option 4 ID : **30169811492**
Status : **Answered**
Chosen Option : **2**

Q.49 Colibactin is a DNA-damaging compound and when taken up by human intestinal cells, colibactin result in double stranded DNA break and can cause human colorectal cancers. It is synthesized by:

1. Certain strain of *E. coli*
2. *Helicobacter pylori*
3. *Bacteroides fragilis*
4. *Bifidobacterium spp.*

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982940**
Option 1 ID : **30169811685**
Option 2 ID : **30169811686**
Option 3 ID : **30169811687**
Option 4 ID : **30169811688**
Status : **Answered**
Chosen Option : **2**

Q.50 Which one of the following statement is incorrect regarding the work of Erwin Chargaff?

1. The base composition of DNA don't varies from one species to another.
2. DNA specimens isolated from different tissues of the same species have the same base composition.
3. The base composition of DNA in a given species does not change with an organism's age, nutritional state, or changing environment.
4. The sum of the purine residues equals the sum of the pyrimidine residues; that is, A + G = T + C.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982885**
Option 1 ID : **30169811465**
Option 2 ID : **30169811466**
Option 3 ID : **30169811467**
Option 4 ID : **30169811468**
Status : **Answered**
Chosen Option : **4**

Q.51 Which of the following are the types of column chromatography?

A. Paper chromatography
B. Affinity chromatography
C. Size exclusion chromatography
D. Ion-exchange chromatography

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

1. A, B and D only

2. A, B and C only

3. A, B, C and D

4. B, C and D only

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982873**
Option 1 ID : **30169811417**
Option 2 ID : **30169811418**
Option 3 ID : **30169811419**
Option 4 ID : **30169811420**
Status : **Answered**
Chosen Option : **4**

Q.52 Match **LIST-I** with **LIST-II**

	LIST-I Commercial Production		**LIST-II Microorganism**
A.	Citric acid	I.	*Corynebacterium glutamicum*
B.	Ethanol	II.	*Aspergillus niger*
C.	Amino acids and nucleotides	III.	*Claviceps purpurea*
D.	Alkaloids	IV.	*Saccharomyces cerevisiae*

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

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

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

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

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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982892**
Option 1 ID : **30169811493**
Option 2 ID : **30169811494**
Option 3 ID : **30169811495**
Option 4 ID : **30169811496**
Status : **Answered**
Chosen Option : **3**

Q.53 Typhoid Vi antigen type of vaccine is:

1. Bacterial products
2. Killed products
3. Live products
4. Subunit

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982905**
Option 1 ID : **30169811545**
Option 2 ID : **30169811546**
Option 3 ID : **30169811547**
Option 4 ID : **30169811548**
Status : **Answered**
Chosen Option : **3**

Q.54 In general F_2, F_3 and the subsequent generations do not show segregation for a cytoplasmically inherited trait. This is because

1. The F_1 individuals generally receive plasmagenes from one parent only.
2. The F_1 individuals generally receive nuclear genes from one parent only.
3. The F_1 individuals generally receive plasmagenes from both parents.
4. The F_1 individuals generally receive nuclear genes from both parents.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982924**
Option 1 ID : **30169811621**
Option 2 ID : **30169811622**
Option 3 ID : **30169811623**
Option 4 ID : **30169811624**
Status : **Answered**
Chosen Option : **4**

Q.55 Match **LIST-I** with **LIST-II**

LIST-I Antimicrobial agent		**LIST-II Mode of action**	
A.	Cephalosporins	I.	Act by inhibition of biosynthesis of the peptidoglycan cell-wall structure.
B.	Nalidixic acid	II.	Inhibition of DNA synthesis in gram-negative bacteria
C.	Isoniazid	III.	Inhibits protein synthesis as a result of binding on the 50S subunit ribosome,
D.	Erythromycin	IV.	Blocking pyridoxin and nicotinamide - catalyzed reactions in the microbial cell

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

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

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

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

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982899**
Option 1 ID : **30169811521**
Option 2 ID : **30169811522**
Option 3 ID : **30169811523**
Option 4 ID : **30169811524**
Status : **Not Answered**
Chosen Option : **--**

Q.56 Hepatitis C virus can cause liver cancer. It has:

1. ds DNA genome
2. ssDNA genome
3. ss RNA genome
4. ds RNA genome

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982907**
Option 1 ID : **30169811553**
Option 2 ID : **30169811554**
Option 3 ID : **30169811555**
Option 4 ID : **30169811556**
Status : **Answered**
Chosen Option : **3**

Q.57 A technique for transferring denatured DNA molecules that have been separated electrophoretically from a gel to a matrix (such as a nitrocellulose or nylon membrane) on which a hybridization assay can be performed is called

1. Northern blotting
2. Southern blotting
3. Eastern blotting
4. Western blotting

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982876**
Option 1 ID : **30169811429**
Option 2 ID : **30169811430**
Option 3 ID : **30169811431**
Option 4 ID : **30169811432**
Status : **Answered**
Chosen Option : **2**

Q.58 The DNA of the bacterial cell is protected from the cell's own restriction enzymes by the addition of methyl group ($-CH_3$) to_____ of cytosine.

A. 4^{th} Carbon
B. 7^{th} Carbon
C. 6^{th} Carbon
D. 5^{th} Carbon

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

1. D only

2. B only

3. B and D only

4. B and C only

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982877**
Option 1 ID : **30169811433**
Option 2 ID : **30169811434**
Option 3 ID : **30169811435**
Option 4 ID : **30169811436**
Status : **Answered**
Chosen Option : **3**

Q.59 Agar is used for preparing solid media for culture. Which of the following is not true about agar media?

1. Agar is obtain from a sea weed

2. It has virtually no nutritive value.

3. It melts at 98°C and usually sets on 42°C depending on agar concentration.

4. For solid media 0.2% to 0.5% agar concentration is employed.

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982941**
Option 1 ID : **30169811689**
Option 2 ID : **30169811690**
Option 3 ID : **30169811691**
Option 4 ID : **30169811692**
Status : **Answered**
Chosen Option : **4**

Q.60 In homosporous pteridophyte species, the development of gametophyte is

1. Hemisporic
2. Episporic
3. Endosporic
4. Exosporic

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982930**
Option 1 ID : **30169811645**
Option 2 ID : **30169811646**
Option 3 ID : **30169811647**
Option 4 ID : **30169811648**
Status : **Answered**
Chosen Option : **3**

Q.61 The F_1 hybrid (Rr Ii) is crossed with a variety double recessive for both the traits. How many types of zygotes will be produced in the cross?

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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982910**
Option 1 ID : **30169811565**
Option 2 ID : **30169811566**
Option 3 ID : **30169811567**
Option 4 ID : **30169811568**
Status : **Answered**
Chosen Option : **2**

Q.62 Match the **LIST-I** with **LIST-II**

	LIST-I Term		**LIST-II Type of change**
A.	Nullisomic	I.	One chromosome missing
B.	Monosomic	II.	One chromosome pair missing
C.	Allotetraploid	III.	Four copies of the same genome present
D.	Autotetraploid	IV.	Two distinct genomes; each has two copies

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

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

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

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

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

Options 1. 1

2. 2

3. 3

4. 4

Question Type : **MCQ**
Question ID : **3016982923**
Option 1 ID : **30169811617**
Option 2 ID : **30169811618**
Option 3 ID : **30169811619**
Option 4 ID : **30169811620**
Status : **Not Answered**
Chosen Option : **--**

Q.63 Which one of the following is not a tetrapods character?

1. Dermal scales
2. Neck and ribs
3. Pelvic girdle
4. Flat skull

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982943**
Option 1 ID : **30169811697**
Option 2 ID : **30169811698**
Option 3 ID : **30169811699**
Option 4 ID : **30169811700**
Status : **Answered**
Chosen Option : **1**

Q.64 More recently discovered plant hormone, Jasmonates, play an important role both in plant defense and development, is derived from which fatty acid?

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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982931**
Option 1 ID : **30169811649**
Option 2 ID : **30169811650**
Option 3 ID : **30169811651**
Option 4 ID : **30169811652**
Status : **Answered**
Chosen Option : **3**

Q.65 Telomerase acts as a cellular reverse transcriptase that provides the active site for:

1. RNA-dependent DNA synthesis
2. DNA-dependent RNA synthesis
3. RNA-dependent RNA synthesis
4. DNA-dependent DNA synthesis

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982882**
Option 1 ID : **30169811453**
Option 2 ID : **30169811454**
Option 3 ID : **30169811455**
Option 4 ID : **30169811456**
Status : **Answered**
Chosen Option : **1**

Q.66 Which of the following will be the part of the pellet, when tissue cells are homogenized and centrifuged at 1000g for 10 min.?

1. Microsomes
2. Mitochondria
3. Nuclei
4. Ribosomes

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982870**
Option 1 ID : **30169811405**
Option 2 ID : **30169811406**
Option 3 ID : **30169811407**
Option 4 ID : **30169811408**
Status : **Answered**
Chosen Option : **1**

Q.67 Match **LIST-I** with **LIST-II**

	LIST-I Gene interaction		**LIST-II Modified F2 ratio**
A.	Complementary gene action	I.	12:3:1
B.	Supplementary gene action	II.	13:3
C.	Inhibitory gene action	III.	9:3:4
D.	Masking gene action	IV.	9:7

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

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

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

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

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

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982909**
Option 1 ID : **30169811561**
Option 2 ID : **30169811562**
Option 3 ID : **30169811563**
Option 4 ID : **30169811564**
Status : **Not Answered**
Chosen Option : **--**

Q.68 The cationic antimicrobial peptide, histatin is found in human's_____.

1. Synovial fluid

2. Cerebrospinal fluid

3. Bile juice

4. Saliva

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982903**
Option 1 ID : **30169811537**
Option 2 ID : **30169811538**
Option 3 ID : **30169811539**
Option 4 ID : **30169811540**
Status : **Answered**
Chosen Option : **2**

Q.69 Which of the following molecule/ion is **not** transported/buffered by hemoglobin?

1. O_2
2. CO_2
3. Na^+
4. H^+

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982883**
Option 1 ID : **30169811457**
Option 2 ID : **30169811458**
Option 3 ID : **30169811459**
Option 4 ID : **30169811460**
Status : **Answered**
Chosen Option : **3**

Q.70 The plants bloom when the light duration is less than 12 hours per day are know as.

1. Short day plants
2. Long day plants
3. Mid day plants
4. Day neutral plants

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982912**
Option 1 ID : **30169811573**
Option 2 ID : **30169811574**
Option 3 ID : **30169811575**
Option 4 ID : **30169811576**
Status : **Answered**
Chosen Option : **1**

Q.71 Frequency of recombination between linked genes in *Drosophila* is affected by

A. Distance between genes
B. Sex of heterozygotes for linked genes
C. Age of female
D. Temperature

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

1. A, B and D only

2. A, B and C only

3. A, B, C and D

4. B, C and D only

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982922**
Option 1 ID : **30169811613**
Option 2 ID : **30169811614**
Option 3 ID : **30169811615**
Option 4 ID : **30169811616**
Status : **Answered**
Chosen Option : **4**

Q.72 A scientist wants to separate three protein molecules by ion-exchange chromatography. The pH of the mobile phase of the column is maintained in such a way that the protein molecule (A) has a net charge of -2, protein molecule (B) has a net charge of +2 and protein molecule (C) has a net charge of +1. Which one of the molecule/s will elute first from a cation-exchange resin?

1. Protein molecule A

2. Protein molecule B

3. Protein molecule C

4. All protein molecules elute simultaneously

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982875**
Option 1 ID : **30169811425**
Option 2 ID : **30169811426**
Option 3 ID : **30169811427**
Option 4 ID : **30169811428**
Status : **Answered**
Chosen Option : **1**

Q.73 In humans, one of the most recognized satellite DNA sequences, found mainly in the centromere region is:

1. Quinoid family
2. Deltoid family
3. Alphoid family
4. Trepizoid family

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982879**
Option 1 ID : **30169811441**
Option 2 ID : **30169811442**
Option 3 ID : **30169811443**
Option 4 ID : **30169811444**
Status : **Answered**
Chosen Option : **2**

Q.74 The left-handed helix, Z-DNA is 18 Å (1.8 nm) in diameter which contains _____.

1. 10 bp per turn
2. 11 bp per turn
3. 10.4 bp per turn
4. 12 bp per turn

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982915**
Option 1 ID : **30169811585**
Option 2 ID : **30169811586**
Option 3 ID : **30169811587**
Option 4 ID : **30169811588**
Status : **Answered**
Chosen Option : **1**

Q.75 Which of the given factors can affect frequency in Mendelian population?

A. Migration
B. Mutation
C. Selection
D. Random shift

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

1. A, B and D only

2. A, B and C only

3. A, B, C and D

4. B, C and D only

Options 1. 1
2. 2
3. 3
4. 4

Question Type : **MCQ**
Question ID : **3016982925**
Option 1 ID : **30169811625**
Option 2 ID : **30169811626**
Option 3 ID : **30169811627**
Option 4 ID : **30169811628**
Status : **Answered**
Chosen Option : **4**