

| Sr. No. | Client Question ID | Question Body and Alternatives | Marks | Negative Marks |
|--------------------|--------------------|--|-------|----------------|
| Objective Question | | | | |
| 1 | 1 | What is the substrate for catalase? A1 H ₂ O : A2 H ₃ O ⁺ : A3 H ₂ O ₂ : A4 OH ⁻ : | 4.0 | 1.00 |
| Objective Question | | | | |
| 2 | 2 | Chitin is a polysaccharide composed of A1 N-acetyl glucosamine residues in β linkage : A2 N-acetyl glucosamine residues in α linkage : A3 N-acetyl glucuronic acid residues in β linkage : A4 N-acetyl glucuronic acid residues in α linkage : | 4.0 | 1.00 |
| Objective Question | | | | |
| 3 | 3 | α and β cyclic forms of D-glucose is referred to as A1 Anomers : A2 Epimers : A3 Isomers : A4 Enantiomers : | 4.0 | 1.00 |
| Objective Question | | | | |
| 4 | 4 | Name the compound with the greatest Standard Free energy A1 ATP : | 4.0 | 1.00 |

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| | | <p>A2 Phosphocreatine :</p> <p>A3 Cyclic AMP :</p> <p>A4 Phosphoenol pyruvate :</p> | | |
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Objective Question

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| 5 | 5 | <p>The non-protein part of holoenzyme is</p> <p>A1 Coenzyme :</p> <p>A2 Apoenzyme :</p> <p>A3 Holoenzyme :</p> <p>A4 Abzyme :</p> | 4.0 | 1.00 |
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Objective Question

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| 6 | 6 | <p>The percentage of triglycerides is more in</p> <p>A1 VLDL :</p> <p>A2 HDL :</p> <p>A3 Chylomicrons :</p> <p>A4 LDL :</p> | 4.0 | 1.00 |
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Objective Question

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| 7 | 7 | <p>The globular shape of a protein is called the</p> <p>A1 Primary structure :</p> <p>A2 Secondary structure :</p> <p>A3 Quaternary structure :</p> <p>A4 Tertiary structure :</p> | 4.0 | 1.00 |
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Objective Question

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| 8 | 8 | <p>During eukaryotic cell division, metaphase to anaphase transition is regulated by deg-radation of</p> | 4.0 | 1.00 |
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| | | <p>A1 Cyclin B1 :</p> <p>A2 CDK 1 :</p> <p>A3 Aurora A kinase :</p> <p>A4 Polo-like kinase :</p> | | |
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Objective Question

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| 9 | 9 | <p>Cell to cell communication is important in development of an organism. The ability of cells to respond to a specific inductive signal is called</p> <p>A1 Regional specificity of induction :</p> <p>A2 Competence :</p> <p>A3 Juxtacrine signaling :</p> <p>A4 Instructive interaction :</p> | 4.0 | 1.00 |
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Objective Question

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| 10 | 10 | <p>Molecular chaperones</p> <p>A1 Are found in the nucleus and aid in folding of DNA :</p> <p>A2 Degrade proteins that have folded incorrectly :</p> <p>A3 Help new proteins fold correctly and repair incorrectly folded proteins :</p> <p>A4 Are only present in cells that are exposed to high temperatures :</p> | 4.0 | 1.00 |
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Objective Question

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| 11 | 11 | <p>Which of the following is not a unique feature of meiosis?</p> <p>A1 Synapsis :</p> <p>A2 Homologous recombination :</p> <p>A3 Reduction division :</p> <p>A4 Diakinesis :</p> | 4.0 | 1.00 |
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Objective Question

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| 12 | 12 | When a homeodomain binds to DNA, the actual binding portion of the homeodomain is | 4.0 | 1.00 |
| | | A1 : A leucine zipper | | |
| | | A2 : The operon | | |
| | | A3 : Zinc fingers | | |
| | | A4 : A helix-turn-helix motif | | |

Objective Question

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|----|----|---------------------------------|-----|------|
| 13 | 13 | Locomotor organelle in bacteria | 4.0 | 1.00 |
| | | A1 : Cilia | | |
| | | A2 : Pili | | |
| | | A3 : Flagella | | |
| | | A4 : Pseudopodia | | |

Objective Question

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| 14 | 14 | The following is a sulphur containing essential amino acid | 4.0 | 1.00 |
| | | A1 : Methionine | | |
| | | A2 : Cysteine | | |
| | | A3 : Cystine | | |
| | | A4 : All of these | | |

Objective Question

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| 15 | 15 | The organism used in Griffith experiment is | 4.0 | 1.00 |
| | | A1 : E.Coli | | |
| | | A2 : Pneumococcus | | |
| | | A3 : Streptococcus | | |
| | | A4 : None of these | | |

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| Objective Question | | | | |
| 16 | 16 | <p>A sensitive analytical tool, which converts biological signals provided by the analyte into electrical signals</p> <p>A1 : Biopolymers</p> <p>A2 : Biosorption</p> <p>A3 : Biodegradation</p> <p>A4 : Biosensors</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 17 | 17 | <p>What will happen to entropy in a protein folding pathway?</p> <p>A1 : Initially increases, later decreases</p> <p>A2 : Gradually decreases</p> <p>A3 : Gradually increases</p> <p>A4 : Initially decreases, later increases</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 18 | 18 | <p>Number of chromosomes present in E.Coli K12 Bacterium is</p> <p>A1 : 1</p> <p>A2 : 2</p> <p>A3 : Less than 1</p> <p>A4 : Less than 2</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 19 | 19 | <p>Antibody diversity can be generated by</p> <p>A1 : Somatic hypermutation</p> <p>A2 : Junctional flexibility</p> <p>A3 : Multiple germ line segments</p> | 4.0 | 1.00 |

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| | | A4 : All of these | | |
| Objective Question | | | | |
| 20 | 20 | <p><i>Agrobacterium tumefaciens</i> is frequently used as a vector to create transgenic plants. Under laboratory conditions <i>Agrobacterium</i> - mediated plant transformation does not require</p> <p>A1 : host plant genes</p> <p>A2 : bacterial type IV secretion system</p> <p>A3 : virgenes</p> <p>A4 : opine catabolism genes</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 21 | 21 | <p>Which of the following DNA modifications results in silencing of a gene?</p> <p>A1 : Acetylation</p> <p>A2 : Ethylation</p> <p>A3 : Methylation</p> <p>A4 : Ubiquitination</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 22 | 22 | <p>The methylation marks in the histone tails promote the</p> <p>A1 : formation of transcriptionally active chromatin</p> <p>A2 : formation of transcriptionally inactive chromatin</p> <p>A3 : formation of heterochromatin</p> <p>A4 : all of these</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 23 | 23 | <p>Chemically prostaglandins are</p> <p>A1 : Saturated</p> <p>A2 : Unsaturated</p> | 4.0 | 1.00 |

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| | | <p>A3 Both Saturated and Unsaturated :</p> <p>A4 None of these :</p> | | |
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Objective Question

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| 24 | 24 | <p>Which of the following disorders are caused due to recessive autosomal mutations?</p> <p>A1 Turner's syndrome and sickle cell anaemia :</p> <p>A2 Edward's syndrome and Down's syndrome :</p> <p>A3 Cystic fibrosis and phenylketonuria :</p> <p>A4 Alzheimer's disease and Huntington's chorea :</p> | 4.0 | 1.00 |
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Objective Question

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| 25 | 25 | <p>The half life period of P^{32} is 14.5 days how long does it take to decay 10 gms of to P^{32} 2.5 gms</p> <p>A1 40 Days :</p> <p>A2 29 Days :</p> <p>A3 30 Days :</p> <p>A4 27 Days :</p> | 4.0 | 1.00 |
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Objective Question

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| 26 | 26 | <p>Curdling of milk in small intestine occurs due to the action of</p> <p>A1 Rennin :</p> <p>A2 Erypsine :</p> <p>A3 Trypsin :</p> <p>A4 Chymotrypsin :</p> | 4.0 | 1.00 |
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Objective Question

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| 27 | 27 | <p>Which of the following displays immune tolerance?</p> <p>A1 B-cells :</p> | 4.0 | 1.00 |
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A2
: A-cells

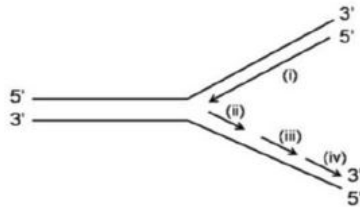
A3
: T-cells

A4
: Both B-cells and T-cells

Objective Question

28 28

The figure below shows the structure of a replication fork.



Based on this information the following statements are made:

- A) (i) represents the leading strand while (ii), (iii) and (iv) represent the Okazaki fragments.
- B) Among the Okazaki fragments, synthesis of (iv) occurs prior to the synthesis of (iii) and (i).
- C) Among the Okazaki fragments, synthesis of (ii) occurs prior to the synthesis of (iii) and (iv).

Which one of the following options represents the correct statement(s)?

A1
: A only

A2
: B only

A3
: A and B

A4
: A and C

4.0

1.00

Objective Question

29 29

Unwinding of circular DNA produce

A1
: Positive Supercoiling

A2
: Negative Supercoiling

A3
: Both positive and negative supercoiling

A4
: Relaxed open circular DNA

4.0

1.00

Objective Question

30 30

In the S-phase, activation of pre-replicative complex is done by

4.0

1.00

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| | | <p>A1 Cdt1 :</p> <p>A2 CDC6 :</p> <p>A3 Cdc7-db4 :</p> <p>A4 ORC1 :</p> | | |
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Objective Question

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| 31 | 31 | <p>Which bioreactor is used for waste water treatment?</p> <p>A1 Fed batch bioreactor :</p> <p>A2 Continuous bioreactor :</p> <p>A3 Batch bioreactor :</p> <p>A4 Membrane bioreactor :</p> | 4.0 | 1.00 |
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Objective Question

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| 32 | 32 | <p>Which of the following gives a better yield of penicillin in large scale production?</p> <p>A1 <i>Penicillium notatum</i> :</p> <p>A2 <i>Penicillium chrysogenum</i> :</p> <p>A3 <i>Penicillium citrinum</i> :</p> <p>A4 <i>Staphylococcus sp.</i> :</p> | 4.0 | 1.00 |
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Objective Question

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| 33 | 33 | <p>The growth curve obtained for a media containing two carbon sources is called-</p> <p>A1 Diauxic curve :</p> <p>A2 Continuous curve :</p> <p>A3 Synchronous curve :</p> <p>A4 Batch growth curve. :</p> | 4.0 | 1.00 |
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Objective Question

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| 34 | 34 | Which system is most promising for biodiesel production? | 4.0 | 1.00 |
| | | A1 : Bacteria | | |
| | | A2 : Fungi | | |
| | | A3 : Microalgae | | |
| | | A4 : Yeast | | |

Objective Question

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| 35 | 35 | To reduce the tartness in wine due to malic acid, a secondary fermentation is carried out using | 4.0 | 1.00 |
| | | A1 : <i>Saccharomyces cerevisiae</i> | | |
| | | A2 : <i>Oenococcus oeni</i> | | |
| | | A3 : <i>Aspergillus niger</i> | | |
| | | A4 : <i>Pichia pastoris</i> | | |

Objective Question

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| 36 | 36 | On scale up, the effective area available for heat transfer in a bioreactor | 4.0 | 1.00 |
| | | A1 : Increases | | |
| | | A2 : Decreases | | |
| | | A3 : Depends on viscosity of the medium | | |
| | | A4 : Remains constant | | |

Objective Question

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| 37 | 37 | Which of the following is a sequence alignment tool | 4.0 | 1.00 |
| | | A1 : BLAST | | |
| | | A2 : PRINT | | |
| | | A3 : PROSITE | | |
| | | A4 : PIR | | |

| Objective Question | | | | |
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| 38 | 38 | <p>The computational methodology that tries to find the best matching between two molecules, a receptor and a ligand is known as</p> <p>A1 : Molecular matching</p> <p>A2 : Molecular fitting</p> <p>A3 : Molecular docking</p> <p>A4 : Molecular affinity checking</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 39 | 39 | <p>All are sequence alignment tools except</p> <p>A1 : Rasmol</p> <p>A2 : BLAST</p> <p>A3 : FASTA</p> <p>A4 : Clustal W</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 40 | 40 | <p>PDB is a</p> <p>A1 : Primary database for macromolecules</p> <p>A2 : Composite database</p> <p>A3 : Database for 3 dimensional structure of biological macromolecule</p> <p>A4 : Metabolic database</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 41 | 41 | <p>Which of these restriction enzymes produce blunt ends?</p> <p>A1 : Sall</p> <p>A2 : EcoRV</p> <p>A3 : XhoI</p> | 4.0 | 1.00 |

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| | | A4 : HindIII | | |
| Objective Question | | | | |
| 42 | 42 | In gel electrophoresis, DNA molecules migrate from _____ to _____ ends of the gel. | 4.0 | 1.00 |
| | | A1 : Negative to positive | | |
| | | A2 : Basic to acidic | | |
| | | A3 : Long to short | | |
| | | A4 : Positive to negative | | |
| Objective Question | | | | |
| 43 | 43 | Knockout mice are created by | 4.0 | 1.00 |
| | | A1 : Mutagenizing a mouse and selecting for mutant offspring | | |
| | | A2 : Creating a chimera by fusing cells from two different cell lines | | |
| | | A3 : Infecting the mouse with a retrovirus | | |
| | | A4 : Transfecting embryonic stem cells with an altered gene sequence | | |
| Objective Question | | | | |
| 44 | 44 | What is a characteristic of the adaptive immune response and not of the innate response | 4.0 | 1.00 |
| | | A1 : Physical barriers | | |
| | | A2 : Chemical barriers | | |
| | | A3 : Phagocytosis | | |
| | | A4 : Clonal expansion of effector cells | | |
| Objective Question | | | | |
| 45 | 45 | IgE mediated histamine release is classified as | 4.0 | 1.00 |
| | | A1 : Type 1 hypersensitivity reaction | | |
| | | A2 : Type 2 hypersensitivity reaction | | |

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| | | A3 Type 3 hypersensitivity reaction : | | |
| | | A4 Type 4 hypersensitivity reaction : | | |

Objective Question

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| 46 | 46 | The diploid number of a flowering plant is 36. What would be the chromosome number of the endosperm? A1 18 : A2 36 : A3 54 : A4 72 : | 4.0 | 1.00 |
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Objective Question

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| 47 | 47 | A karyotype that shows all morphological features of the chromosome is known as A1 Histogram : A2 Idiogram : A3 Polygram : A4 Satellite : | 4.0 | 1.00 |
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Objective Question

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| 48 | 48 | Which one of the following groups of bacteria evolve oxygen? A1 Cyanobacteria : A2 Methanogens : A3 Methylotrophs : A4 Mycoplasmas : | 4.0 | 1.00 |
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Objective Question

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| 49 | 49 | When a plant cell or tissue is placed in hypertonic solution the water comes out of the cell sap into the outer solution and the cell becomes flaccid. This phenomenon is known as A1 Wall pressure : | 4.0 | 1.00 |
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| | | A2 Exosmosis : | | |
| | | A3 Turgor pressure : | | |
| | | A4 Endosmosis : | | |

Objective Question

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|----|----|--|-----|------|
| 50 | 50 | The amount of oxygen required for oxidation by microbes per unit volume of water is known as | 4.0 | 1.00 |
| | | A1 Biological Oxygen Demand (BOD) : | | |
| | | A2 Dissolved Oxygen (DO) : | | |
| | | A3 Eutrophication : | | |
| | | A4 Microaerophilic oxygen : | | |

Objective Question

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|----|----|---|-----|------|
| 51 | 51 | An increase in nutrient levels and productivity occurs then that phenomenon is known as | 4.0 | 1.00 |
| | | A1 Bioaccumulation : | | |
| | | A2 Biomagnification : | | |
| | | A3 Eutrophication : | | |
| | | A4 Bioremediation : | | |

Objective Question

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| 52 | 52 | Assertion (A): The major source of energy for the basic functioning of the cell is derived from oxidative metabolism. Reasoning (R): Mitochondria oxidise substrates to CO ₂ , transferring the high energy electron from the original molecules (eg, glucose) to molecular oxygen, and generating low-energy elec-trons of water which leads to H ⁺ ions flow through proton pumps, and the energy released is used in the synthesis of ATP. | 4.0 | 1.00 |
| | | A1 Both A and R are true and R is the correct reason for A : | | |
| | | A2 Both A and R are true and R is not the correct reason for A : | | |
| | | A3 A is true but R is false : | | |
| | | A4 A is false but R is true : | | |

Objective Question

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| 53 | 53 | A 26 year old women has 10 Escherichia coli inoculated into her bladder during coitus. These E coli have a generation time | 4.0 | 1.00 |
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| | | <p>of 20 minutes. After a lag of 20 minutes, the E coli enter the loga-rithmic phase of growth. After 3 hours of logarithmic phase of growth, the total number of cells is (growth constant = 2.07 h^{-1})</p> <p>A1 : 2560</p> <p>A2 : 5012</p> <p>A3 : 1028</p> <p>A4 : 1,000,000</p> | | |
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Objective Question

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| 54 | 54 | <p>Autoclaving, a process by which one sterilizes nutrient medium, involves heating at</p> <p>A1 : 121°C and 15lb pressure for 15 min</p> <p>A2 : 60°C and 15lb pressure for 15 min</p> <p>A3 : 500°C and 15lb pressure for 15 min</p> <p>A4 : 900°C and 15lb pressure for 15 min</p> | 4.0 | 1.00 |
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Objective Question

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| 55 | 55 | <p>One <i>Svedberg</i> unit is equal to</p> <p>A1 : 100.0×10^{-13}</p> <p>A2 : 10.0×10^{-13}</p> <p>A3 : 1.0×10^{-13}</p> <p>A4 : 0.1×10^{-13}</p> | 4.0 | 1.00 |
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Objective Question

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| 56 | 56 | <p>The substance used for self-assembling density gradient in centrifugation is</p> <p>A1 : Sucrose</p> <p>A2 : Cesium Chloride</p> <p>A3 : Glucose polysaccharide</p> <p>A4 : Titanium Fluoride</p> | 4.0 | 1.00 |
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| Objective Question | | | | |
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| 57 | 57 | Which one of the following is responsible for genetic variation seen in diploid eukaryotes? | 4.0 | 1.00 |
| | | A1 : Cell division by Mitosis | | |
| | | A2 : Crossing over during Meiosis | | |
| | | A3 : Pairing of homologous Chromosomes | | |
| | | A4 : Separation of chromatids during Anaphase | | |

| Objective Question | | | | |
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| 58 | 58 | A researcher was investigating the substrate specificity of two different enzymes, X and Y, on the same substrate. Both the enzymes were subjected to treatment with either heat or an inhibitor which inhibits the enzyme activity. Following are the results obtained where, a= inhibitor treatment, b = heat treatment, c= control. | 4.0 | 1.00 |
| | | <p>Which of the following statement is correct?</p> | | |
| | | A1 : Only protein X is specific for the substrate S | | |
| | | A2 : Only protein Y is specific for the substrate S | | |
| | | A3 : Both X and Y are specific for the substrate S | | |
| | | A4 : Both X and Y are non-specific for the substrate S | | |

| Objective Question | | | | |
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| 59 | 59 | In the biosynthesis of purine | 4.0 | 1.00 |
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| | | A1 : All N atoms, C4 and C5 from Aspartic acid | | |

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| | | <p>A2 N1 is from aspartic acid; N3 and N9 are from Glutamine side- chain; N7, C4 and C5 are from Glycine :</p> <p>A3 N1 is from Aspartic acid; N3 from Glutamine side- chain ; N9 from N attached to Cα of Glutamine; N7, C4 and C5 : from Glycine</p> <p>A4 N1 is from Glutamine; N3 from Glutamine side- chain; N9 from N attached to Cα of Glutamine; N7, C4 and C5 from : Glycine</p> | | |
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| Objective Question | | | | |
| 60 | 60 | <p>Fluidity of the membranes depends on:</p> <p>A1 : Nature of fatty acids</p> <p>A2 : Concentration of proteins</p> <p>A3 : Glycosylation of proteins</p> <p>A4 : Membrane pumps</p> | 4.0 | 1.00 |

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| Objective Question | | | | |
| 61 | 61 | <p>Telomerase, a RNA- protein complex which completes the replication of telomeres during DNA synthesis, is a specialized</p> <p>A1 : RNA dependant DNA polymerase</p> <p>A2 : DNA dependent DNA polymerase</p> <p>A3 : DNA dependent RNA polymerase</p> <p>A4 : RNA dependent RNA polymerase</p> | 4.0 | 1.00 |

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| Objective Question | | | | |
| 62 | 62 | <p>Which one of the following hormones is responsible for mobilizing calcium from the bone and increasing urinary excretion of phosphate?</p> <p>A1 : Calcitonin</p> <p>A2 : Angiotensin II</p> <p>A3 : Parathormone</p> <p>A4 : Vasopressin</p> | 4.0 | 1.00 |

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| Objective Question | | | | |
| 63 | 63 | The major limitation(s) of using NMR to solve the protein structure is | 4.0 | 1.00 |

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| | | <p>A1 Resolution is poor :</p> <p>A2 Resolved structure is not reliable :</p> <p>A3 NMR spectroscopy is not applicable for the proteins of larger molecular weight :</p> <p>A4 All of these :</p> | | |
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Objective Question

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| 64 | 64 | <p>What is the half-life of radioisotope ^{14}C?</p> <p>A1 5700 years :</p> <p>A2 12.8 years :</p> <p>A3 60000 years :</p> <p>A4 32 days :</p> | 4.0 | 1.00 |
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Objective Question

| | | | | |
|----|----|--|-----|------|
| 65 | 65 | <p>Which of the following is correct regarding genetic code?</p> <p>A1 UUU is the initiation codon which also codes for phenylalanine :</p> <p>A2 There are 64 triplet codons which codes for 20 amino acids :</p> <p>A3 Three random nitrogen bases specify the placement of one amino acid :</p> <p>A4 UAA is the nonsense codon which also codes for methionine :</p> | 4.0 | 1.00 |
|----|----|--|-----|------|

Objective Question

| | | | | |
|----|----|---|-----|------|
| 66 | 66 | <p>The melting temperature of the PCR primer 5'GATCGATCGATCGATCGATC 3' is</p> <p>A1 50°C :</p> <p>A2 55°C :</p> <p>A3 60°C :</p> <p>A4 65°C :</p> | 4.0 | 1.00 |
|----|----|---|-----|------|

Objective Question

| | | | | |
|----|----|------------------------------------|-----|------|
| 67 | 67 | Agar is commercially obtained from | 4.0 | 1.00 |
| | | A1 : Blue-green algae | | |
| | | A2 : Red algae | | |
| | | A3 : Brown algae | | |
| | | A4 : Green algae | | |

Objective Question

| | | | | |
|----|----|---|-----|------|
| 68 | 68 | Part of plant used for plant tissue culturing is called | 4.0 | 1.00 |
| | | A1 : Scion | | |
| | | A2 : Stock | | |
| | | A3 : Explant | | |
| | | A4 : Callus | | |

Objective Question

| | | | | |
|----|----|---|-----|------|
| 69 | 69 | Proteins are estimated by which of the following method | 4.0 | 1.00 |
| | | A1 : Benedict's | | |
| | | A2 : Biuret | | |
| | | A3 : Barfoed's | | |
| | | A4 : None of these | | |

Objective Question

| | | | | |
|----|----|--|-----|------|
| 70 | 70 | Ethidium bromide is a florescent probe for determining the presence of | 4.0 | 1.00 |
| | | A1 : Nucleic acids | | |
| | | A2 : Protein | | |
| | | A3 : Carbohydrates | | |
| | | A4 : Lipids | | |

| Objective Question | | | | |
|--------------------|----|--|-----|------|
| 71 | 71 | <p>Corona virus affects</p> <p>A1 Heart :</p> <p>A2 Lung :</p> <p>A3 Kidney :</p> <p>A4 Bone :</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 72 | 72 | <p>In a PCR denaturation of double stranded DNA molecule is by heating it to</p> <p>A1 70-75 °C :</p> <p>A2 90-98 °C :</p> <p>A3 45-55 °C :</p> <p>A4 50-60 °C :</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 73 | 73 | <p>Pick out the highly polar solvent</p> <p>A1 petroleum ether :</p> <p>A2 water :</p> <p>A3 hexane :</p> <p>A4 methanol :</p> | 4.0 | 1.00 |
| Objective Question | | | | |
| 74 | 74 | <p>A man suddenly sees a tiger. His heart beat goes up, blood pressure increases, etc. Which hor-mone is released at this time in his body.</p> <p>A1 Paratharhone :</p> <p>A2 Corticoids :</p> <p>A3 Adrenaline :</p> | 4.0 | 1.00 |

A4 Thyroxine
:

Objective Question

| | | | | |
|----|----|--|-----|------|
| 75 | 75 | Thylakoids are present in A1 mitochondria : A2 endoplasmic reticulum : A3 chloroplast : A4 ribosomes : | 4.0 | 1.00 |
|----|----|--|-----|------|

Objective Question

| | | | | |
|----|----|--|-----|------|
| 76 | 76 | Molecular scissors are A1 Ligase : A2 Helicase : A3 Restriction endonuclease : A4 DNA Polymerase : | 4.0 | 1.00 |
|----|----|--|-----|------|

Objective Question

| | | | | |
|----|----|--|-----|------|
| 77 | 77 | Totipotency means A1 Ability of a cell to grow into a complete plant : A2 Ability of an animal cell to recombine with plant : A3 Ability of cell to grow into a complete individual : A4 Ability of an animal cell to fully developed animal : | 4.0 | 1.00 |
|----|----|--|-----|------|

Objective Question

| | | | | |
|----|----|--|-----|------|
| 78 | 78 | Which of the following is used in Biowar? A1 A pathogen : A2 Toxin from a pathogen : | 4.0 | 1.00 |
|----|----|--|-----|------|

| | | | | |
|--|--|--|--|--|
| | | A3 A delivery system for the bio weapon agent : | | |
| | | A4 All of these : | | |

Objective Question

| | | | | |
|----|----|---|-----|------|
| 79 | 79 | Epigenetic modification occurs at A1 DNA : A2 Histones : A3 DNA and Histones : A4 RNA : | 4.0 | 1.00 |
|----|----|---|-----|------|

Objective Question

| | | | | |
|----|----|---|-----|------|
| 80 | 80 | First artificially produced hormone A1 Insulin : A2 Thyroxin : A3 Adrenalin : A4 Testosterone : | 4.0 | 1.00 |
|----|----|---|-----|------|

Objective Question

| | | | | |
|----|----|---|-----|------|
| 81 | 81 | Which is not true about Opsonization A1 mediated by complement components and enhances phagocytosis : A2 involves mainly the Fc protion of the immunoglobulins : A3 fibroblast play a role in this process : A4 not restricted by the MHC (Major Histocompatiblity Complex) : | 4.0 | 1.00 |
|----|----|---|-----|------|

Objective Question

| | | | | |
|----|----|---|-----|------|
| 82 | 82 | The histone lysine acetylation modifications are often recognized by A1 MBT domains : A2 Bromo domains | 4.0 | 1.00 |
|----|----|---|-----|------|

| | | | | |
|--|--|--|--|--|
| | | : A3 Tudor domains : A4 Chromo domains : | | |
|--|--|--|--|--|

Objective Question

| | | | | |
|----|----|---|-----|------|
| 83 | 83 | Which of the following sequences represents the hierarchy of biological organization from the most inclusive to the least complex level? A1 organelle, tissue, biosphere, ecosystem, population : A2 organ, organism, tissue, organelle, molecule : A3 organism, community, biosphere, molecule, tissue, organ : A4 biosphere, ecosystem, community, population, organism : | 4.0 | 1.00 |
|----|----|---|-----|------|

Objective Question

| | | | | |
|----|----|--|-----|------|
| 84 | 84 | Where in a phylogenetic tree would you expect to find the organism that had evolved most recently? A1 at the base : A2 within the branches : A3 at the nodes : A4 at the branch tips : | 4.0 | 1.00 |
|----|----|--|-----|------|

Objective Question

| | | | | |
|----|----|--|-----|------|
| 85 | 85 | Heat of vaporization of water is the amount of energy required to change one gram of a liquid substance to a gas. Amount of this heat energy is equal to A1 586 calories : A2 486 calories : A3 386 calories : A4 286 calories : | 4.0 | 1.00 |
|----|----|--|-----|------|

Objective Question

| | | | | |
|----|----|--|-----|------|
| 86 | 86 | Microscope that is capable of optical sectioning and analysis of tissues is known as | 4.0 | 1.00 |
|----|----|--|-----|------|

| | | | | |
|--|--|------------------------|--|--|
| | | A1 Confocal : | | |
| | | A2 Dark field : | | |
| | | A3 Bright field : | | |
| | | A4 Phase contrast : | | |

Objective Question

| | | | | |
|----|----|---|-----|------|
| 87 | 87 | A geneticist diluted 2 μ l of DNA with 149 μ l water and found that it gave an OD of 0.35 at 260nm. The concentration of DNA in the original solution is _____. (Given OD _{260nm} of 50 μ g/ml DNA is 1) | 4.0 | 1.00 |
| | | A1 131.2 μ g/ml : | | |
| | | A2 13.1 μ g/ml : | | |
| | | A3 1312.5 μ g/ml : | | |
| | | A4 1.3 μ g/ml : | | |

Objective Question

| | | | | |
|----|----|---|-----|------|
| 88 | 88 | Which one of the following is a natural auxin | 4.0 | 1.00 |
| | | A1 Gibberellin : | | |
| | | A2 Naphthalene acetic acid : | | |
| | | A3 Indole acetic acid : | | |
| | | A4 2,4-dichlorophenoxy acetic acid : | | |

Objective Question

| | | | | |
|----|----|---|-----|------|
| 89 | 89 | The collenchyma is thickened due to the deposition of | 4.0 | 1.00 |
| | | A1 Lignin : | | |
| | | A2 Cutin : | | |
| | | A3 Suberin : | | |
| | | A4 Pectin : | | |

| Objective Question | | | | |
|--------------------|----|---|-----|------|
| 90 | 90 | <p>Organism which fix atmospheric nitrogen in soil are found among</p> <p>A1 Bacteria :</p> <p>A2 Mosses :</p> <p>A3 Soil fungi :</p> <p>A4 Green algae :</p> | 4.0 | 1.00 |

| Objective Question | | | | |
|--------------------|----|---|-----|------|
| 91 | 91 | <p>The cell wall of fungus contains</p> <p>A1 Pectin and cellulose :</p> <p>A2 Cellulose and chitin :</p> <p>A3 Chitin and pectin :</p> <p>A4 Silica and pectin :</p> | 4.0 | 1.00 |

| Objective Question | | | | |
|--------------------|----|--|-----|------|
| 92 | 92 | <p>Na⁺/K⁺ pump belongs to which one of the following categories</p> <p>A1 Osmosis :</p> <p>A2 Active transport :</p> <p>A3 Passive transport :</p> <p>A4 Facilitated diffusion :</p> | 4.0 | 1.00 |

| Objective Question | | | | |
|--------------------|----|---|-----|------|
| 93 | 93 | <p>Which of the following is not the classified form of conjugated proteins?</p> <p>A1 Lipoproteins :</p> <p>A2 Glycoproteins :</p> <p>A3 Metalloproteins :</p> <p>A4 Complete proteins</p> | 4.0 | 1.00 |

| | | | | |
|--------------------|----|--|-----|------|
| | | : | | |
| Objective Question | | | | |
| 94 | 94 | HMP shunt generates the following except | 4.0 | 1.00 |
| | | A1 : Fructose 6 phosphate | | |
| | | A2 : NADPH | | |
| | | A3 : Riboses | | |
| | | A4 : ATP | | |
| Objective Question | | | | |
| 95 | 95 | Which bioreactor is used for waste water treatment? | 4.0 | 1.00 |
| | | A1 : Fed batch bioreactor | | |
| | | A2 : Continuous bioreactor | | |
| | | A3 : Batch bioreactor | | |
| | | A4 : Membrane bioreactor | | |
| Objective Question | | | | |
| 96 | 96 | A cytokine that activates cells to express MHC class II antigens and protects the cells from virus replication is: | 4.0 | 1.00 |
| | | A1 : IL-6 | | |
| | | A2 : IL-10 | | |
| | | A3 : TNF- α | | |
| | | A4 : Interferon- γ | | |
| Objective Question | | | | |
| 97 | 97 | Which is not a macrophage? | 4.0 | 1.00 |
| | | A1 : Monocyte | | |
| | | A2 : Microglia | | |
| | | A3 : Lymphocytes | | |

A4 Kuepfer cells
:

Objective Question

| | | | | |
|----|----|--|-----|------|
| 98 | 98 | Which of the following accurately describes the promoter? A1 : The protein that attaches to DNA in order to create mRNA A2 : The binding site for DNA polymerase on DNA A3 : The attachment point for a ribosome before translation A4 : A sequence of DNA used to signal the beginning point of transcription | 4.0 | 1.00 |
|----|----|--|-----|------|

Objective Question

| | | | | |
|----|----|--|-----|------|
| 99 | 99 | Knockout mice are created by A1 : 9% A2 : 0.3% A3 : 0.09% A4 : 30% | 4.0 | 1.00 |
|----|----|--|-----|------|

Objective Question

| | | | | |
|-----|-----|---|-----|------|
| 100 | 100 | AIDS virus has? A1 : Single strand DNA A2 : Double strand DNA A3 : Single strand RNA A4 : Double strand RNA | 4.0 | 1.00 |
|-----|-----|---|-----|------|