

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	1	<p>Small charged molecules, often biogenic amines function as</p> <p>A1 : Hormones</p> <p>A2 : Neurotransmitters</p> <p>A3 : Both hormones and neurotransmitters</p> <p>A4 : None of these</p>	4.0	1.00
Objective Question				
2	2	<p>In paracrine signaling, the signaling molecules affects only</p> <p>A1 : target cells close to the cell from which it was secreted</p> <p>A2 : target cells distant from its site of synthesis in cells of an endocrine organ</p> <p>A3 Both target cells close to the cell from which it was secreted and target cells distant from its site of synthesis in cells of : an endocrine organ</p> <p>A4 : None of these</p>	4.0	1.00
Objective Question				
3	3	<p>Which of the following is true about a hydrophilic signaling molecule?</p> <p>A1 : Its receptor is located in the cytosol of the target cell</p> <p>A2 : It might trigger a signal cascade that causes some effect in a cell</p> <p>A3 : Since it can enter the cell, it directly affects some specific cell process</p> <p>A4 : It is a steroid</p>	4.0	1.00
Objective Question				
4	4	<p>cAMP and cGMP are derived from</p> <p>A1 : ATP and GTP by the actions of adenylate cyclase and guanylate cyclase respectively</p>	4.0	1.00

		<p>A2 : GTP and ATP by the actions of adenylate cyclase and guanylate cyclase respectively</p> <p>A3 : ATP and GTP by the actions of guanylate cyclase and adenylate cyclase respectively</p> <p>A4 : None of these</p>		
Objective Question				
5	5	<p>In terms of cell communication, what do bacterial pathogens such as cholera and anthrax have in common?</p> <p>A1 : They destroy the receptors for key signaling molecules</p> <p>A2 : They prevent the production of key signaling molecules</p> <p>A3 : They alter the chemical structure of key signaling molecules</p> <p>A4 : They block the normal functioning of signal transduction mechanisms</p>	4.0	1.00
Objective Question				
6	6	<p>The enzyme that catalyzes the splitting of PIP2 into two molecules of inositol triphosphate (IP3) and diacylglycerol in cell signaling, is</p> <p>A1 : Phosphokinase C</p> <p>A2 : Phospholipase C</p> <p>A3 : Phosphodiesterase C</p> <p>A4 : Lipokinase</p>	4.0	1.00
Objective Question				
7	7	<p>What is the name of the protein signaling molecule that alters glucose uptake, and where would its receptors be located?</p> <p>A1 : Insulin; many different cell types that use glucose for fuel</p> <p>A2 : Insulin; beta cells of the pancreas</p> <p>A3 : PDGF; the blood</p> <p>A4 : NGF; the nerves involved in simple reflexes</p>	4.0	1.00
Objective Question				
8	8	<p>Which of the following statement is correct?</p>	4.0	1.00

		<p>A1 Cell communicate with one another in multicellular organisms using extracellular signaling molecules or hormones :</p> <p>A2 Cell communicate with one another in unicellular organisms using extracellular signaling antigen and antibody :</p> <p>A3 Cell communicate with one another in multicellular organisms using intracellular signaling molecules only :</p> <p>A4 Cell communicate with one another in unicellular organisms using intracellular signaling antigen and antibody :</p>		
Objective Question				
9	9	<p>Embryonic stem cells of mammals are derived from</p> <p>A1 Trophoectoderm :</p> <p>A2 Inner cell mass :</p> <p>A3 Gametes :</p> <p>A4 Blastocoel :</p>	4.0	1.00
Objective Question				
10	10	<p>In case of turtles, the temperature at which the eggs are exposed during development is the deciding factor in sex determination. This is because of the temperature sensitivity of</p> <p>A1 Estrogen :</p> <p>A2 Testosterone :</p> <p>A3 Aromatase enzyme :</p> <p>A4 Progesterone :</p>	4.0	1.00
Objective Question				
11	11	<p>The ability of cells, to achieve their respective fate by themselves without the influence of neighboring cells is called as</p> <p>A1 Autonomous specification :</p> <p>A2 Conditional specification :</p> <p>A3 Syncytial specification :</p> <p>A4 Non-conditional specification :</p>	4.0	1.00

Objective Question				
12	12	<p>The blastomeres of a two-celled embryo are separated and allowed to develop independently. Each blastomere gives rise to the young one. This type of development pattern suggests that potential of development is</p> <p>A1 : Greater than fate</p> <p>A2 : less than fate</p> <p>A3 : Equal to its fate</p> <p>A4 : Independent of fate</p>	4.0	1.00
Objective Question				
13	13	<p>Blastomeres derived from early stages of cleavage divisions of frog embryo, when separated, can give rise to viable tadpoles. The blastomeres derived from late cleavage stages, however, fail to develop into normal tadpoles when separated from each other. Which is the most correct statement that explains the phenomenon?</p> <p>A1 : Each early blastomere carries the entire genetic information for the development of a tadpole.</p> <p>A2 : Each early blastomere carries the entire cytoplasmic information for the development of a tadpole.</p> <p>A3 : Early blastomeres are mirror images of each other.</p> <p>A4 : None of these</p>	4.0	1.00
Objective Question				
14	14	<p>The secondary tissue is added by the _____</p> <p>A1 : Intercalary meristem</p> <p>A2 : Vascular cambium</p> <p>A3 : Apical meristems</p> <p>A4 : Both Vascular cambium and Intercalary meristem</p>	4.0	1.00
Objective Question				
15	15	<p>If one parent has type A blood and the other parent has type B blood, what blood type will the offspring denoted by the white square and circle have?</p> <p>A1 : Type A.</p> <p>A2 : Type B.</p> <p>A3 : Type AB.</p>	4.0	1.00

		: A4 : Type O.		
Objective Question				
16	16	<p>The four cells produced in meiosis will have a:</p> <p>A1 : 2n number of chromosomes and will differ genetically from each other.</p> <p>A2 : 2n number of chromosomes and will be genetically identical to each other.</p> <p>A3 : n number of chromosomes and will be genetically identical to each other.</p> <p>A4 : n number of chromosomes and will differ genetically from each other.</p>	4.0	1.00
Objective Question				
17	17	<p>Mitosis involves separation of only sister chromatids while meiosis involves?</p> <p>A1 : Also separation of only sister chromatids.</p> <p>A2 : Separation of only homologous chromosomes.</p> <p>A3 : Separation of homologous chromosomes as well as sister chromatids.</p> <p>A4 : Separation of sister chromatids twice.</p>	4.0	1.00
Objective Question				
18	18	<p>An example of alleles is:</p> <p>A1 : AB and Tt.</p> <p>A2 : TT and Tt.</p> <p>A3 : T and t.</p> <p>A4 : X and Y.</p>	4.0	1.00
Objective Question				
19	19	<p>Which of the following gives information about the phenotype but not the genotype?</p> <p>A1 : $X^{H}Y$.</p> <p>A2 : Hemophiliac man.</p>	4.0	1.00

		<p>A3 Tall pea plant. :</p> <p>A4 Female carrier for colour-blindness. :</p>		
Objective Question				
20	20	<p>An extra finger in humans is rare but is due to a dominant gene. When one parent is normal and the other parent has an extra finger but is heterozygous for the trait, what is the probability that the first child will be normal?</p> <p>A1 0%. :</p> <p>A2 25%. :</p> <p>A3 50%. :</p> <p>A4 75%. :</p>	4.0	1.00
Objective Question				
21	21	<p>A strand of DNA with the sequence A A C T T G will have a complimentary strand with the following sequence:</p> <p>A1 CCAGGT :</p> <p>A2 AACTTG :</p> <p>A3 TTCAAG :</p> <p>A4 TTGAAC :</p>	4.0	1.00
Objective Question				
22	22	<p>Long radishes crossed with round radishes result in all oval radishes. This type of inheritance is:</p> <p>A1 Multiple alleles. :</p> <p>A2 Complete dominance. :</p> <p>A3 Co-dominance. :</p> <p>A4 Incomplete dominance. :</p>	4.0	1.00
Objective Question				
23	23	<p>A pedigree chart shows:</p> <p>A1 The genotypic ratios of the offspring. :</p>	4.0	1.00

		<p>A2 : The types of gametes produced by the parents.</p> <p>A3 : The pattern of inheritance of a specific gene.</p> <p>A4 : Which genes is co-dominant.</p>		
Objective Question				
24	24	<p>The ability of cells, to achieve their respective fate by themselves without the influence of neighboring cells is called as</p> <p>A1 : Autonomous specification</p> <p>A2 : Conditional specification</p> <p>A3 : Syncytial specification</p> <p>A4 : Non-conditional specification</p>	4.0	1.00
Objective Question				
25	25	<p>Nitroglycerin has long been administered to human patients suffering from chronic chest pain (angina). This medication works because it</p> <p>A1 : mimics the action of signal receptors</p> <p>A2 : is broken down into hormones that affect the heart</p> <p>A3 : interferes with chemical cascades that trigger contraction of heart muscle</p> <p>A4 : breaks down into nitric oxide, which increases blood flow to the heart</p>	4.0	1.00
Objective Question				
26	26	<p>A researcher developed quadruple mutant that disrupted the function of all phytochrome interacting factor (PIF) family members. The following hypotheses were proposed regarding the phenotype of the mutant plants when grown in dark:</p> <p>A. Plants would show short hypocotyls B. Plants would be etiolated C. Light induced genes would be activated D. The cotyledons would be open</p> <p>Which one of the following combinations of the above hypotheses is correct?</p> <p>A1 : A,B and C</p> <p>A2 : A,B and D</p> <p>A3 : A, C and D</p>	4.0	1.00

		A4 : B, C and D		
Objective Question				
27	27	<p>Transgenic tobacco plants over expressing isopentenyl transferase (IPT) under the control of promoter region of senescence-Associated Receptor kinase (PSARK) were exposed to drought for 15days followed by re-watering for 7 days. The following hypotheses were proposed regarding changes in the transgenic plants at the end of 7 days of re-watering:</p> <p>A. The plant would be wilted and fail to survive. B. The plant would be healthy and survive. C. The plant would show higher production of cytokinin compared to wild type plants. D. The plant would show higher production of abscisic acid compared to wild type plants.</p> <p>Which one of the following combinations of the above hypothesis is correct?</p> <p>A1 : A and C</p> <p>A2 : A and D</p> <p>A3 : B and C</p> <p>A4 : B and D</p>	4.0	1.00
Objective Question				
28	28	<p>In terpene biosynthesis pathways, three acetyl- CoA are joined together stepwise to form mevalonic acid. Which one of the following three steps is required by mevalonic acid to form isopentenyl diphosphate or isopentenyl pyrophosphate (IPP)?</p> <p>A1 : Pyrophosphorylation, decarboxylation and dehydration.</p> <p>A2 : Alkylation, Pyrophosphorylation and decarboxylation.</p> <p>A3 : Methylation, dehydration and alkylation.</p> <p>A4 : Pyrophosphorylation, carboxylation and methylation.</p>	4.0	1.00
Objective Question				
29	29	<p>Following segments are related to oxidative phosphorylation:</p> <p>A) Redox reactions of electron transport chain coupled with ATP synthesis are collectively called oxidative phosphorylation B) Three major process:: Glycolysis, oxidative pentose phosphate pathway and citric acid cycle are related to oxidative phosphorylation. C) Electron transport proteins are bound to outer of the two mitochondrial membranes. D) In the Electron transport chain electrons are transferred to oxygen from NADH.</p> <p>Which one of the following combinations of above statements is correct?</p> <p>A1 : A and D</p> <p>A2 : B and C</p> <p>A3 : C and D</p>	4.0	1.00

		A4 : A and C		
Objective Question				
30	30	<p>Which one of the following plant hormones uses the two-component histidine kinase receptor system for signal transduction?</p> <p>A1 : Auxin</p> <p>A2 : Gibberellin</p> <p>A3 : Cytokinin</p> <p>A4 : Absciscic acid</p>	4.0	1.00
Objective Question				
31	31	<p>Ribulose biphosphate carboxylase (Rubisco) catalyzes both carboxylation and oxygenation of ribulose-1,5-bisphosphate. The latter reaction initiates a physiological process known as “photorespiration”. The following are certain statements on photorespiration:</p> <p>A) The active site on Rubisco for carboxylation and oxygenation are different. B) One of the steps in photorespiration is conversion of glycine to serine. C) 50% of carbon lost in chloroplast due to oxygenation is recovered through Photo-respiration. D) The pathway of Photo-respiration involves chloroplast, peroxisome and mitochondria.</p> <p>Which one of the following combinations of above statement is correct?</p> <p>A1 : A and C</p> <p>A2 : A and D</p> <p>A3 : B and D</p> <p>A4 : C and D</p>	4.0	1.00
Objective Question				
32	32	<p>The photosynthetic assimilation of atmospheric CO₂ by leaves yield sucrose and starch as end products of two gluconeogenic pathways that are physically separated. Which one of the following combination of cell organelles is involved in such physical separation of the process?</p> <p>A1 : Sucrose in cytosol and starch in mitochondria.</p> <p>A2 : Sucrose in chloroplast and starch in cytosol.</p> <p>A3 : Sucrose in mitochondria and starch in cytosol.</p> <p>A4 : Sucrose in cytosol and starch in chloroplasts.</p>	4.0	1.00
Objective Question				

33	33	<p>Phenylalanine, a precursor of most of the phenolics in higher plants is a product of which one of the following pathways?</p> <p>A1 : Shikimic acid pathway</p> <p>A2 : Malonic acid pathway</p> <p>A3 : Mevalonic acid pathway</p> <p>A4 : Methylerythritol pathway</p>	4.0	1.00
----	----	---	-----	------

Objective Question

34	34	<p>If the core body temperature of a human rises above normal, which of the following processes would be initiated sequentially for thermo-regulation?</p> <p>A1 : Peripheral vasodilation, increased rate of respiration, tachycardia.</p> <p>A2 : Peripheral vasoconstriction, increased rate of respiration, bradycardia.</p> <p>A3 : Peripheral vasodilation, decreased rate of respiration, tachycardia.</p> <p>A4 : Peripheral vasodilation, decreased rate of respiration, bradycardia.</p>	4.0	1.00
----	----	--	-----	------

Objective Question

35	35	<p>Graves disease is associated with</p> <p>A1 : Insufficiency of thyroid hormones</p> <p>A2 : Excess of thyroid hormones</p> <p>A3 : Insufficiency of corticosteroids</p> <p>A4 : Excess of growth hormones</p>	4.0	1.00
----	----	--	-----	------

Objective Question

36	36	<p>Which of the following waves is likely to be absent in a normal frog ECG?</p> <p>A1 : P</p> <p>A2 : Q</p> <p>A3 : T</p> <p>A4 : R</p>	4.0	1.00
----	----	--	-----	------

Objective Question				
37	37	<p>In an animal experiment:</p> <p>P) Electrical stimulation of an area in the brain (A) Increased a function (F) which was prevented by systemic injection of adrenergic antagonistic, prazosin.</p> <p>Q) Injection of carbachol (cholinergic agonist) into A also increased function F which was however, not prevented by systemic injection of adrenergic antagonistic, prazosin.</p> <p>The results are likely to be due to the stimulation of</p> <p>A1 : Non-adrenergic and cholinceptive neurons.</p> <p>A2 : Cholinergic and Non-adrenoceptive neurons.</p> <p>A3 : Adrenergic terminals in 'A'.</p> <p>A4 : Both neurons and fibres passing through 'A'</p>	4.0	1.00
Objective Question				
38	38	<p>Desert animals have longer loop of Henle compared to that of humans. It may be due to the following reasons:</p> <p>A. Long loop of Henle, the counter – current exchanger is more effective.</p> <p>B. In long loop of Henle, the counter-current exchanger is more effective.</p> <p>C. Long loop of Henle conserves more water.</p> <p>D. Long loop of Henle stimulates production of angiotensin II</p> <p>Which of the above reason(s) is / are correct?</p> <p>A1 : A and B</p> <p>A2 : B and C</p> <p>A3 : C and D</p> <p>A4 : Only D</p>	4.0	1.00
Objective Question				
39	39	<p>Open vascular system is usually found in _____</p> <p>A1 : Crabs</p> <p>A2 : Monkeys</p> <p>A3 : Crows</p> <p>A4 : Humans</p>	4.0	1.00
Objective Question				

40	40	<p>Which of the following statement is true regarding the transport of CO₂ in the body?</p> <p>A1 : CO₂ is completely transported through plasma</p> <p>A2 : CO₂ is completely transported by hemoglobin.</p> <p>A3 : Hemoglobin transport 99.5% of CO₂</p> <p>A4 : Hemoglobin carries about 20-25% of CO₂</p>	4.0	1.00
----	----	---	-----	------

Objective Question

41	41	<p>Select the correct sequence of intermediates from the following biosynthetic pathway</p> <p>A1 : Testosterone to estrogen to progesterone</p> <p>A2 : Testosterone to progesterone to estradiol</p> <p>A3 : Estradiol to testosterone to progesterone</p> <p>A4 : Progesterone to testosterone to estradiol</p>	4.0	1.00
----	----	--	-----	------

Objective Question

42	42	<p>During physical exercise, the oxygen supply to the active muscles is increased, which has been explained by the following statements:</p> <p>P) PO₂ declines and PCO₂ rises in the active muscles.</p> <p>Q) The temperature is increased and pH is decreased in active muscles.</p> <p>R) 2,3-biphosphoglycerate is decreased in RBC and P50 rises.</p> <p>S) Metabolites accumulating in the active muscles increase the affinity of hemoglobin to oxygen.</p> <p>Which one of the following is NOT correct?</p> <p>A1 : P only</p> <p>A2 : P and Q</p> <p>A3 : Q and R</p> <p>A4 : R and S</p>	4.0	1.00
----	----	--	-----	------

Objective Question

43	43	<p>Which among the following is a diploblastic organism?</p> <p>A1 : Hydra</p> <p>A2 : Crabs</p>	4.0	1.00
----	----	--	-----	------

		<p>A3 Squid :</p> <p>A4 Earthworm :</p>		
Objective Question				
44	44	<p>Which of the following National parks has the highest density of tigers among protected areas in the ...</p> <p>A1 Manas :</p> <p>A2 Jim Corbett :</p> <p>A3 Kaziranga :</p> <p>A4 Keoladeo Ghana :</p>	4.0	1.00
Objective Question				
45	45	<p>Which one of the following show complete metamorphosis in all three orders?</p> <p>A1 Coleopterans, Dipterans and Hymenopterans :</p> <p>A2 Coleopterans, Hymenopterans and Orthopterans :</p> <p>A3 Dipterans, Lepidopterans and Hymenopterans :</p> <p>A4 Hymenopterans, Lepidopterans and Orthopterans :</p>	4.0	1.00
Objective Question				
46	46	<p>Cnidarians are</p> <p>A1 Triploblastic animals with bilateral symmetry :</p> <p>A2 Diploblastic animals with medusa as one of the basic body forms. :</p> <p>A3 Monoblastic organisms with tube feet :</p> <p>A4 Asymmetric organisms with tentacles containing poison glands. :</p>	4.0	1.00
Objective Question				
47	47		4.0	1.00

Match the following plant diseases with the name of pathogen associated with the disease		
Disease	Pathogen	
A. Powdery mildew	i.	<i>Erwinia amylovora</i>
B. Rice blast	ii	<i>Pseudomonas syringae</i> pv. <i>syringae</i>
C. Bacterial canker	iii	<i>Magnaporthe oryzae</i>
D. Fire blight	iv	<i>Erysiphe cecidiorum</i>

A1
: A – ii, B – iii, C – i, D – iv

A2
: A – i, B – iv, C – ii, D – iii

A3
: A – iv, B – iii, C – ii, D – i

A4
: A – iii, B – ii, C – iv, D – i

Objective Question

48	48	<p>Match the following taxa with genus of the microorganism</p> <table><tr><th>Taxa</th><th>Genus</th></tr><tr><td>A. Ascomycota</td><td>i. Rhizopus</td></tr><tr><td>B. Basidiomycota</td><td>ii Erysipine</td></tr><tr><td>C. Zygomycota</td><td>iii Pythium</td></tr><tr><td>D. Oomycota</td><td>iv Ustilago</td></tr></table> <p>A1 : A – ii, B – iv, C – i, D – iii</p> <p>A2 : A – ii, B – iii, C – i, D – iv</p> <p>A3 : A – ii, B – iv, C – iii, D – i</p> <p>A4 : A – i, B – ii, C – iv, D – iii</p>	Taxa	Genus	A. Ascomycota	i. Rhizopus	B. Basidiomycota	ii Erysipine	C. Zygomycota	iii Pythium	D. Oomycota	iv Ustilago	4.0	1.00
Taxa	Genus													
A. Ascomycota	i. Rhizopus													
B. Basidiomycota	ii Erysipine													
C. Zygomycota	iii Pythium													
D. Oomycota	iv Ustilago													

Objective Question

49	49	<p>The wings of birds and insects have the same function, but they do not have the same evolutionary origin. Bird and insect wings are</p> <p>A1 : Homologous</p> <p>A2 : Phylogenetic</p> <p>A3 : Analogous</p> <p>A4 : Binomial</p>	4.0	1.00
----	----	---	-----	------

Objective Question

50	50	A new species is formed when	4.0	1.00
----	----	------------------------------	-----	------

		<p>A1 An individual with a new genotype is formed due to exchange of chromosome segments during crossing - over in gametogenesis :</p> <p>A2 Genotypic changes accumulate in a population resulting in its reproductive isolation :</p> <p>A3 Variants with new phenotypes are produced due to new combinations of genes during reproduction :</p> <p>A4 Homologous chromosome exchange segments during crossing over in gametogenesis. :</p>		
Objective Question				
51	51	<p>In the grassland ecosystem, trees do not replace the grasses as part of ecological succession because-</p> <p>A1 Insect and fungi :</p> <p>A2 Limited sunlight & nutrients :</p> <p>A3 Water limit & regular fire or overgrazing :</p> <p>A4 Cool temperature :</p>	4.0	1.00
Objective Question				
52	52	<p>The evolution of numerous species in a short period of time from a single ancestral population, such as Darwin's finches, is called</p> <p>A1 Adaptive radiation :</p> <p>A2 Sympatric speciation :</p> <p>A3 Gradualism :</p> <p>A4 Nondisjunction :</p>	4.0	1.00
Objective Question				
53	53	<p>Genetic drift occur by</p> <p>A1 Chance :</p> <p>A2 Immigration :</p> <p>A3 Emigration :</p> <p>A4 Mutation :</p>	4.0	1.00

Objective Question				
54	54	<p>Consider the following assumption</p> <p>i) All known living organism possess parasite ii) A single host species can harbour more than one type of parasite</p> <p>From the above information it can be concluded that</p> <p>A1 : Species of host organism is more than parasites</p> <p>A2 : Species of parasites is more than host organism</p> <p>A3 : Number of parasite is equal to the number of host</p> <p>A4 : No valid conclusion can be drawn</p>	4.0	1.00
Objective Question				
55	55	<p>The type of vegetation in climate having temperature range 5-20 °C and rainfall 150 – 300 cm will be</p> <p>A1 : Temperate deciduous</p> <p>A2 : Temperate evergreen</p> <p>A3 : Taiga</p> <p>A4 : Grasslands</p>	4.0	1.00
Objective Question				
56	56	<p>The accumulation of DDT has decreased the population of pelican ducks because DDT</p> <p>A1 : Killed all ducken</p> <p>A2 : Decreased availability of Ca for egg shells which leads into thin shelled fragile eggs</p> <p>A3 : Stopped synthesis of eggs</p> <p>A4 : Interfered Ca metabolism</p>	4.0	1.00
Objective Question				
57	57	<p>Hot spots are primarily designated on basis</p> <p>A1 : Endemism</p> <p>A2 : Species diversity</p>	4.0	1.00

		<p>A3 Area covered species :</p> <p>A4 Flowering plant species :</p>		
Objective Question				
58	58	<p>Temporary fluctuation in population size is due to</p> <p>A1 Migration :</p> <p>A2 Carrying capacity :</p> <p>A3 Bottle neck :</p> <p>A4 Interspecific competition :</p>	4.0	1.00
Objective Question				
59	59	<p>Effective population size for completely monogamous species having 40 males and 10 females would be</p> <p>A1 42 :</p> <p>A2 32 :</p> <p>A3 20 :</p> <p>A4 10 :</p>	4.0	1.00
Objective Question				
60	60	<p>Which of the following statement is true regarding the transport of CO₂ in the body?</p> <p>A1 CO₂ is completely transported through plasma :</p> <p>A2 CO₂ is completely transported by hemoglobin. :</p> <p>A3 Hemoglobin transport 99.5% of CO₂ :</p> <p>A4 Hemoglobin carries about 20-25% of CO₂ :</p>	4.0	1.00
Objective Question				
61	61	<p>Which part of translational modification of proteins does not occur in lumen of ER</p> <p>A1 Glycosylation :</p> <p>A2 Ubiquitnation</p>	4.0	1.00

		<p>:</p> <p>A3 Conformation folding and formation of quaternary structure.</p> <p>:</p> <p>A4 Formation of Disulphide bonds</p> <p>:</p>		
Objective Question				
62	62	<p>Human mitochondria.</p> <p>A1 are inherited as an X-linked trait</p> <p>:</p> <p>A2 are all inherited from the father</p> <p>:</p> <p>A3 have linear DNA</p> <p>:</p> <p>A4 none of these</p> <p>:</p>	4.0	1.00
Objective Question				
63	63	<p>Choose the pair of terms that correctly completes this sentence nucleotides are to _____ as _____ are to proteins.</p> <p>A1 Amino acids; polypeptides</p> <p>:</p> <p>A2 Genes; enzymes</p> <p>:</p> <p>A3 Nucleic acids; amino acids</p> <p>:</p> <p>A4 POLYMERS; Polypeptides</p> <p>:</p>	4.0	1.00
Objective Question				
64	64	<p>Environmental control of sex determination is seen in</p> <p>A1 Malandrium</p> <p>:</p> <p>A2 Drosophila</p> <p>:</p> <p>A3 Bonelia</p> <p>:</p> <p>A4 ApesIndica</p> <p>:</p>	4.0	1.00
Objective Question				
65	65	<p>Progression through the eukaryotic cell cycle is regulated by</p> <p>A1 Microtubules</p> <p>:</p>	4.0	1.00

		<p>A2 : Cyclic-Dependent Kinase</p> <p>A3 : The P⁵³ Gene</p> <p>A4 : DNA ligase</p>		
Objective Question				
66	66	<p>How do memory cells differ from effector cells</p> <p>A1 : Memory cells are more numerous</p> <p>A2 : Memory cells are responsible for the primary immune response</p> <p>A3 : Memory cells attack invaders; effector cells do not</p> <p>A4 : Memory cells live longer</p>	4.0	1.00
Objective Question				
67	67	<p>Blocking action of enzyme through blocking its active site is</p> <p>A1 : Allosteric inhibition</p> <p>A2 : Competitive inhibition</p> <p>A3 : Feedback inhibition</p> <p>A4 : Non-competitive inhibition</p>	4.0	1.00
Objective Question				
68	68	<p>Eukaryotic mRNA differ from prokaryotic mRNA in that</p> <p>A1 : They do not have a 5' untranslated region</p> <p>A2 : Their coding regions are separated by spacers</p> <p>A3 : They do not have 3' UTR</p> <p>A4 : They have a free 3' hydroxy group on each of their ends</p>	4.0	1.00
Objective Question				
69	69	<p>Cyclic AMP regulates the lactose (lac) operon by</p>	4.0	1.00

		<p>A1 Binding to the operator to turn on transcription :</p> <p>A2 Binding to the lac repressor to prevent transcription :</p> <p>A3 Combining with the catabolic activator protein (cap) to form a complex that enhance transcription upon binding to the : promotor.</p> <p>A4 Combining with the cap to remove cap's inhibition of transcription. :</p>		
Objective Question				
70	70	<p>Micelles</p> <p>A1 Are the same as emulsion droplets :</p> <p>A2 Form from bile acids at all bile acid concentration :</p> <p>A3 Although they are formed during lipid digestion, do not significantly enhance utilization of dietary lipid. :</p> <p>A4 Always consists of only a single lipid species. :</p>	4.0	1.00
Objective Question				
71	71	<p>A shortage of phosphorus in the soil would make it especially difficult for a plant to manufacture.</p> <p>A1 DNA :</p> <p>A2 Protein :</p> <p>A3 Cellulose :</p> <p>A4 Fatty acids :</p>	4.0	1.00
Objective Question				
72	72	<p>In some place a protein molecule may twist (or) fold back on itself, this is called _____ and the coils (or) folds are hold in place by _____</p> <p>A1 Tertiary structure ; hydrogen bonds. :</p> <p>A2 Primary structure ; covalent bonds. :</p> <p>A3 Secondary structure ; peptide bonds :</p> <p>A4 Tertiary structure ; covalent bonds :</p>	4.0	1.00

Objective Question				
73	73	<p>homologous recombination</p> <p>A1 : Occurs only between two segments from the same DNA molecules</p> <p>A2 : Requires that a specific DNA sequence be present</p> <p>A3 : Requires that one of the duplexes undergoing recombination be nicked in both strands</p> <p>A4 : May result in strand exchange by branch migration</p>	4.0	1.00
Objective Question				
74	74	<p>The transport system that maintains the Na^+ and K^+ gradients across the plasma membrane of cells.</p> <p>A1 : Moves Na^+ either into (or) out of the cell.</p> <p>A2 : Involves an enzyme that is an ATPase</p> <p>A3 : Is an electrically neutral system</p> <p>A4 : in the membrane hydrolyzes ATP independently of the movement of Na^+ and K^+</p>	4.0	1.00
Objective Question				
75	75	<p>All the following are potential control mechanisms for regulation of gene expression in eukaryotic organisms EXCEPT</p> <p>A1 : Gene amplification</p> <p>A2 : The degradation of mRNA</p> <p>A3 : The lactose operon</p> <p>A4 : Transcription</p>	4.0	1.00
Objective Question				
76	76	<p>TATA boxes and Pribnow boxes are components of</p> <p>A1 : Operators</p> <p>A2 : Promoters</p> <p>A3 : Enhancers</p> <p>A4 : Activators</p>	4.0	1.00

		:		
Objective Question				
77	77	<p>Which of the following is not true of photosystem-II</p> <p>A1 : It is located in thylakoid membranes</p> <p>A2 : It is involved in the oxidization of water</p> <p>A3 : It has a special oxidizable chlorophyll P₆₈₀</p> <p>A4 : It is required for cyclic photophosphorylation.</p>	4.0	1.00
Objective Question				
78	78	<p>Energy- requiring reaction can occur in biological system because enzyme s allows their coupling to other reactions with</p> <p>A1 : An increase in entropy</p> <p>A2 : A low activation energy</p> <p>A3 : No inhibition</p> <p>A4 : Products of lower free energy than the reaction</p>	4.0	1.00
Objective Question				
79	79	<p>Primary bile acids</p> <p>A1 : Are any bile acids that are found in the intestinal tract</p> <p>A2 : Are any bile acids reabsorbed from the intestinal tract</p> <p>A3 : Are synthesized in hepatocytes directly from cholesterol</p> <p>A4 : Are converted to secondary bile acids by conjugation with glycine / taurine.</p>	4.0	1.00
Objective Question				
80	80	<p>It is theoretically possible for a gene from any organism to function in any other organism. Why is this possible</p> <p>A1 : All organisms have similar nuclei</p> <p>A2 : All organisms have the same genetic code</p> <p>A3 : All the are made up of cells</p>	4.0	1.00

		A4 : All the organisms have transfer RNA		
Objective Question				
81	81	<p>A particular allele can have different effects if it was inherited from a male rather than a female. Thus phenomenon is known as</p> <p>A1 : Extranuclear inheritance</p> <p>A2 : Aneuploidy</p> <p>A3 : Sex-linkage</p> <p>A4 : Genome imprinting</p>	4.0	1.00
Objective Question				
82	82	<p>Surface Plasmon resonance (SPR) detects binding of label free molecules on</p> <p>A1 : The dector</p> <p>A2 : On coating tube</p> <p>A3 : The surface of a chip</p> <p>A4 : None of these</p>	4.0	1.00
Objective Question				
83	83	<p>A circadian cycle in the movement of plant leaves was first observed by</p> <p>A1 : Jean-Jacquesd Ortous de Mairan</p> <p>A2 : Patricia de coursey</p> <p>A3 : Carolous Linnaeus</p> <p>A4 : Franz Helberg</p>	4.0	1.00
Objective Question				
84	84	<p>Altruistic behavior is not seen in</p> <p>A1 : Silkworm</p> <p>A2 : Ant</p>	4.0	1.00

		<p>A3 Bee :</p> <p>A4 Termite :</p>		
Objective Question				
85	85	<p>C –value paradox is often encountered mostly in</p> <p>A1 Prokaryotes :</p> <p>A2 Bacteria :</p> <p>A3 Archaea :</p> <p>A4 Eukaryotes :</p>	4.0	1.00
Objective Question				
86	86	<p>In a population of randomly interacting individuals, the value of the correlation between genetic similarity and interaction strength will be</p> <p>A1 0 :</p> <p>A2 $\frac{1}{2}$:</p> <p>A3 1 :</p> <p>A4 2 :</p>	4.0	1.00
Objective Question				
87	87	<p>Circannual behaviors</p> <p>A1 Are often linked to changes in day length :</p> <p>A2 Rely solely on endogenous cues :</p> <p>A3 Involve foraging, reproduction and migration :</p> <p>A4 Do not occur in free running conditions :</p>	4.0	1.00
Objective Question				
88	88	<p>Kin selection theory contributed to the demise of the</p> <p>A1 Group selection concept :</p>	4.0	1.00

		<p>A2 Species selection concept :</p> <p>A3 Individual selection concept :</p> <p>A4 Population selection concept :</p>		
Objective Question				
89	89	<p>Nitrates maintain the red color of preserved meats and</p> <p>A1 Prevent mold :</p> <p>A2 Inhibit germination of botulism spores :</p> <p>A3 Widely used preservative :</p> <p>A4 Maintain a high osmotic pressure to kill micro organisms :</p>	4.0	1.00
Objective Question				
90	90	<p>The pH should be maintained for the production of pencillin</p> <p>A1 5.0 :</p> <p>A2 6.5 :</p> <p>A3 7.5 :</p> <p>A4 8.0 :</p>	4.0	1.00
Objective Question				
91	91	<p>Testing on GMOs in food and feed is routinely done by</p> <p>A1 DNA micro arrays :</p> <p>A2 qPCR :</p> <p>A3 both DNA micro arrays and qPCR :</p> <p>A4 None of these :</p>	4.0	1.00
Objective Question				
92	92	<p>Which of the following is a preferred vector for transferring genes to nerve cells</p>	4.0	1.00

		<p>A1 Retrovirus :</p> <p>A2 AAV :</p> <p>A3 Herpes :</p> <p>A4 HIV :</p>		
Objective Question				
93	93	<p>Marker- assisted background selection, a term coined by</p> <p>A1 Melchinger :</p> <p>A2 Young and Tanksley :</p> <p>A3 Eisenberg and Cohnsey :</p> <p>A4 Hospital and Charcosset :</p>	4.0	1.00
Objective Question				
94	94	<p>The gene for green fluorescent protein (GFP) a commonly used reporter gene was cloned from</p> <p>A1 <i>Equorea Victoria</i> :</p> <p>A2 <i>Vibrio cholera</i> :</p> <p>A3 <i>Danio rerio</i> :</p> <p>A4 <i>SUS domesticus</i> :</p>	4.0	1.00
Objective Question				
95	95	<p>BAC, which can be used to clone large DNA fragments is derived from</p> <p>A1 Col E plasmid :</p> <p>A2 2^μ plasmid :</p> <p>A3 Mu phage :</p> <p>A4 F plasmid :</p>	4.0	1.00
Objective Question				

96	96	<p>Which of the following stain is used for checking the transfer of proteins on to the membrane after electrophoresis</p> <p>A1 : Commassie Brilliant Blue G-250</p> <p>A2 : Ponceau S</p> <p>A3 : Amido Black</p> <p>A4 : Commassie Brilliant Blue R-250</p>	4.0	1.00
Objective Question				
97	97	<p>The advantage of FISH over ISH is</p> <p>A1 : High resolution</p> <p>A2 : Sensitivity and speed</p> <p>A3 : Faster detection</p> <p>A4 : All of these</p>	4.0	1.00
Objective Question				
98	98	<p>Circular dichroism (CD) is observed only when molecule is</p> <p>A1 : Planar</p> <p>A2 : Optically active</p> <p>A3 : In sheet form</p> <p>A4 : In helix form</p>	4.0	1.00
Objective Question				
99	99	<p>Carbon dating is good for dating objects that are</p> <p>A1 : Between 500 and 50,000 years old</p> <p>A2 : Between 50-500 years old</p> <p>A3 : Between 50,000-50,0000 years old</p> <p>A4 : More than 50,000 years old</p>	4.0	1.00

Objective Question				
100	100	A 3-dimentional appearance with higher resolutions than SEM can be obtained by TEM	4.0	1.00
		A1 : Casting		
		A2 : Shadowing		
		A3 : Staining		
		A4 : Using fluoresecent dyes		