Module Name : PhD Botony-E
Exam Date : 18-Sep-2020 Batch : 16:00-18:00

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	1	Find out the bacteria which lack cell wall and are resistant to penicillin? A1 : Mycoplasmas A2 : Bdellovibrios A3 : Spirochetes A4 : Cyanobacteria	4.0	1.00
Objective Question				
2	2	Flagella found all over the body surface of the bacteria is called as A1 : monotrichus A2 : lophotrichous A3 : Amphitrichus A4 : peritrichus	4.0	1.00
Objective Question				
3	3	Bacterial cocci found in double or in pairs A1 : Streptococci A2 : Staphycocci A3 : Sarcina A4 : diplococci	4.0	1.00
Objective Question				
4	4	Which of the followings are the first land plants? A1 : Algae	4.0	1.00

		A2 : Fungi A3 : Bryophytes A4 : Pteridophytes		
Objective Question				
5	5	Pteridophytes are different from bryophytes by A1 : Presence of vascular tissue A2 : Archegonia A3 : Sperms A4 : Alternate generation	4.0	1.00
Objective Question				
6	6	Seed habit is originated in A1 : Algae A2 : Fungi A3 : Pteridophytes A4 : Bryophytes	4.0	1.00
Objective Question				
7	7	Sporangia bearing leaf is called as A1 : Sorus A2 : Sporophyll A3 : Androecium A4 : Indusium	4.0	1.00
Objective Question				
8	8	Plants which are not differentiated into leaf, stem and root are A1 Bryophytes	4.0	1.00

		: A2 : Gymnosperms A3 : Pteridophytes A4 : Thallophytes		
Objective Question				
9	9	Megasporangium is also known as A1 : Fruit A2 : Ovule A3 : Nucellus A4 : Sorus	4.0	1.00
Objective Question				
10	10	Gymnosperm differs from Angiosperms by A1 : Having seeds A2 : Having naked ovules A3 : Only having ovules A4 : Having fruits	4.0	1.00
Objective Question				
11	11	The most advanced Gymnosperm is A1 : Cycadales A2 : Coniferales A3 : Gnetales A4 : Codaitales	4.0	1.00
Objective Question				
12	12	The largest sperm is found in the plants of	4.0	1.00

		A1 : Cycas A2 : Rhynia A3 : Hydrilla A4 : Lycopodium		
Objective Question				
13	13	Energy flow in ecosystem is A1 : Tridirectional A2 : Unidirectional A3 : Bidirectonal A4 : Multidirectional	4.0	1.00
Objective Question				
14	14	Which one is considered as man made ecosystems? A1 : Pond A2 : Tissue culture A3 : Aquarium A4 : Forest	4.0	1.00
Objective Question				
15	15	Which one of the followings is a good indicator of SO_2 pollution? A1 : Lichen A2 : Bryophytes A3 : Pteridophytes A4 : Fungi	4.0	1.00

Objective Question				
16	16	Minamata disease was caused by water pollution by A1 : Lead A2 : Bismuth A3 : Tin A4 : Mercury	4.0	1.00
Objective Question				
17	17	Commercially citric acid is produced using A1 : Aspergillus A2 : Penicillium A3 : Citrus fruits A4 : Bacteria	4.0	1.00
Objective Question				
18	18	Which of the following is fungicide? A1 : Bordeaux mixture A2 : D.D.T A3 : 2-4,D A4 : Auxin	4.0	1.00
Objective Question				
19	19	The main constituent of ‘Ergot of rye’ is A1 : Phenol A2 : Alkaloid A3 : Nucleic acid A4 Antibiotic	4.0	1.00

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Objective Question				
20	20	Ruminate endosperm is commonly found in the seeds of A1 : Euphorbiaceae A2 : Cruciferae A3 : Annonaceae A4 : Compositae	4.0	1.00
Objective Question				
21	21	The protein from which hook and filaments of flagella are composed of, is A1 : Gelatin A2 : Casein A3 : Flagellin A4 : Keratin	4.0	1.00
Objective Question				
22	22	What is the percentage of Peptidoglycan in the dry weight of cell wall in many gram positive bacteria? A1 : Within 20 to 50% A2 : 50% or more A3 : Below 20% A4 : Above 50%	4.0	1.00
Objective Question				
23	23	Aspergillosis is recognized in tissue by the presence of A1 : Budding cells A2 : Septate hyphae A3 : Psuedohyphae	4.0	1.00

		A4 : Metachromatic granules		
Objective Question				
24	24	Megasporophyll of sellaginella is equal to which structure of angiosperms A1 : Carpel A2 : Stigma A3 : Ovul A4 : Stem	4.0	1.00
Objective Question				
25	25	Spore dissemination in fern is done by A1 : Indusium A2 : Annulus A3 : Sorus A4 : Tapetum	4.0	1.00
Objective Question				
26	26	Agar agar is obtained from the followings A1 : Gelidium A2 : Gracilaria A3 : Spirolina A4 : Nostoc	4.0	1.00
Objective Question				
27	27	Which of the algae is responsible for red colour in red sea A1 : Clamydomonasbrauii A2 : Trichodesmiumerythrium	4.0	1.00

		A3 : Ulothixzoneta A4 : Volvox sp		
Objective Question				
28	28	Primary development of male and female gametophytes takes place in the sporangia itself in A1 : Sellaginella A2 : Volvux A3 : Fern A4 : Fungi	4.0	1.00
Objective Question				
29	29	Which one of the following pairs in mismatched? A1 : Tundra - permafrost A2 : Savanna - acacia trees A3 : Prairie - epiphytes A4 : Coniferous forest - evergreen trees	4.0	1.00
Objective Question				
30	30	A clone is a group of individuals obtained through A1 : Vegetative Propagation A2 : Cross-Pollination A3 : Self-Pollination A4 : Hybridization	4.0	1.00
Objective Question				
31	31	The classification given by Bentham and Hooker is A1 : Phylogenetic A2 Natural	4.0	1.00

		: A3 : Artificial A4 : Numerical		
Objective Question				
32	32	Tricarpellary, syncarpous, inferior ovary with parietal placentation is found in A1 : Cruciferae A2 : Ranunculaceae A3 : Solanceae A4 : Cucurbitaceae	4.0	1.00
Objective Question				
33	33	The filtering medium of trickling filters is coated with microbial flora, known as A1 : Zoogleal film A2 : Zoological film A3 : Geological film A4 : Microbial film	4.0	1.00
Objective Question				
34	34	Which of the following nucleic acid is present in hepatitis B virus? A1 : ssRNA A2 : dsDNA A3 : ssDNA A4 : dsRNA	4.0	1.00
Objective Question				
35	35	The process by which phage reproduction is initiated in lysogenized culture is called A1 : integration	4.0	1.00

		A2 : infection A3 : repression A4 : induction		
Objective Question				
36	36	Competition for light, nutrients and space is most severe between A1 : closely related organism growing in different niches A2 : closely related organisms growing in the same area/niche A3 : distantly related organisms growing in the same habitat A4 : distantly related organisms growing in different niches.	4.0	1.00
Objective Question				
37	37	Green house effect is warming due to A1 : ozone layer of atmosphere. A2 : infra-red rays reaching earth A3 : moisture layer in atmosphere A4 : increase in temperature due to increase in carbon dioxide concentration of atmosphere	4.0	1.00
Objective Question				
38	38	In C3 plants first stable product photosynthesis during dark reaction is: A1 : Pyruvic acid A2 : PGA A3 : RuBP A4 : Oxalo acetic acid	4.0	1.00
Objective Question				
39	39	A woman showing extra Barr bodies in chromosome during amniocentesis is showing that the embryo is associated with:	4.0	1.00

		A1: Edward’s syndrome A2: Klinefelter’s syndrome A3: Down’s syndrome A4: Patau’s syndrome		
Objective Question				
40	40	Which is most likely to be exposed on the surface of a gram-negative bacterium? A1: Pore protein (porin) A2: Lipoteichoic acid A3: Phospholipids A4: Aminoacids	4.0	1.00
Objective Question				
41	41	The last step in synthesis of peptidoglycan is A1: attaching two amino acids to form a cross-link A2: attachment of a peptide to muramic acid A3: binding of penicillin to a membrane protein A4: attachment of a portion of peptidoglycan to a membrane lipid	4.0	1.00
Objective Question				
42	42	Immuno-compromised persons are suffered from several fungal diseases. Which of the following is the least frequently associated A1: Mucor species A2: *Cryptococcus neoformans* A3: *Aspergillus fumigatus* A4: *Rhizopus sp.*	4.0	1.00

Objective Question				
43	43	Fungal cells that reproduce by budding are seen in the infected tissues of patients with A1 : Tineacorporis, tineaunguium, and tineaversicolor A2 : Candidiasis, cryptococcosis, and sporotrichosis A3 : Mycetoma, candidiasis and mucormycosis A4 : Sporotrichosis, mycetoma and aspergillosis	4.0	1.00
Objective Question				
44	44	Which one of the following is correct matching of a plant, its habit and the forest type where it normally occurs? A1 : Prosopis, tree, scrub A2 : Saccharum, grass, forest A3 : Shorea robusta, herb, tropical rain forest A4 : Acacia catechu, tree, coniferous forest	4.0	1.00
Objective Question				
45	45	The pyramid of energy is always upright for any ecosystem. This situation indicates the fact that A1 : Herbivores have a better energy conversion efficiency than carnivores A2 : Producers have the lowest energy conversion efficiency A3 : Carnivores have better energy conversion efficiency than herbivores A4 : Energy conversion efficiency is the same in all trophic levels	4.0	1.00
Objective Question				
46	46	Leader sequence in some of the protozoan parasites is transcribed elsewhere in the parasite genome and gets joined with several transcripts to make the functional RNA. The joining of the two transcripts occur by the process of A1 : Alternate splicing A2 : Trans splicing A3 : Ligation	4.0	1.00

		A4 : RNA editing		
Objective Question				
47	47	During replication, the RNA primer is degraded by the 5'-3' exonucleases activity of A1 : RNase H1 (ribonuclease H1) A2 : FEN-1 (flap endonuclease) A3 : Topoisomerase II B A4 : DNA polymerase $_{\gamma}$	4.0	1.00
Objective Question				
48	48	What will happen if histones are depleted from a metaphase chromosomes and viewed under a transmission electron microscope A1 : 30 nm chromatin will be observed A2 : 10 nm chromatin will be observed A3 : A scaffold and huge number of loops of DNA fibers will be observed A4 : A huge number of loops of DNA fibers without scaffold will be observed	4.0	1.00
Objective Question				
49	49	Which of the following does not contribute to protein diversity A1 : RNA editing A2 : RNA splicing A3 : RNA interference A4 : Alternate initiation of translation	4.0	1.00
Objective Question				
50	50	A set of virulence genes (vir genes), located in the Agrobacterium Ti-plasmid, is activated by A1 : octopine A2 : nopaline	4.0	1.00

		A3 : acetosyringone A4 : auxin		
Objective Question				
51	51	When two mutants having the same phenotype were crossed, the progeny obtained showed a wild-type phenotype. Thus the mutations are A1 : non-allelic A2 : allelic. A3 : segregating from each other. A4 : independently assorting	4.0	1.00
Objective Question				
52	52	Repair of double strand breaks made during meiosis in the yeast Saccharomyces cerevisiae A1 : is associated with a high frequency of mutations A2 : occurs mostly using the sister chromatid as a template. A3 : occurs mostly using the homologous chromosome as a template A4 : occurs mostly by non-homologous end joining.	4.0	1.00
Objective Question				
53	53	A messenger RNA is 336 bases long including the initiation and termination codon. The number of aminoacids in the polypeptide translated from this A1 : 110 A2 : 333 A3 : 111 A4 : 600	4.0	1.00
Objective Question				
54	54	The copy number of transgene in plants can be deciphered by A1 : Southern western blotting	4.0	1.00

		A2 : Northern blotting A3 : South blotting A4 : Eastern blotting		
Objective Question				
55	55	Telomease, a RNA protein complex which completes the replication of telomeres during DNA synthesis, is a specialized A1 : RNA depended RNA polymerase A2 : DNA depended DNA polymerase A3 : RNA depended DNA polymerase A4 : DNA depended RNA polymerase	4.0	1.00
Objective Question				
56	56	The different beak morphologies of Darwin's flinches on the Galapagos Islands is best explained by A1 : Genetic variation A2 : Dietary differences A3 : Different habitats A4 : All of these	4.0	1.00
Objective Question				
57	57	Deletion of the leader sequence of trp operon of E.coli would result in A1 : decreased transcription of trp operon. A2 : increased transcription of trp operon. A3 : no effect on transcription. A4 : decreased transcription of trp operon in the presence of tryptophan	4.0	1.00
Objective Question				
58	58	The bacteria deficient in cell wall is A1 Spirochetes	4.0	1.00

		: A2 : Bdellovibrios A3 : Mycoplasmas A4 : Cyanobacteria		
Objective Question				
59	59	Which of the following has peptidoglycan as a major constituent of cell wall? A1 : Gram-positive bacteria A2 : Gram-negative bacteria A3 : Fungi A4 : Virus	4.0	1.00
Objective Question				
60	60	The cocci which forms a chain is A1 : Streptococci A2 : Staphycocci A3 : Sarcina A4 : diplococci	4.0	1.00
Objective Question				
61	61	Select the first land plants on the earth from the followings A1 : Pteridophytes A2 : Bryophytes A3 : Algae A4 : Fungi	4.0	1.00
Objective Question				
62	62	Fern stele is a	4.0	1.00

		A1 : Plectodstele A2 : Actinostele A3 : Dictyostele A4 : Siphonostele		
Objective Question				
63	63	Which are the primitive group of algae A1 : Cyanophyceae A2 : Pheophyceae A3 : Rhodophyceae A4 : Chlorophyceae	4.0	1.00
Objective Question				
64	64	Iodine is obtained from A1 : Nostoc A2 : Laminaria A3 : Volvox A4 : Spirolina	4.0	1.00
Objective Question				
65	65	Sargassum belong which algae A1 : Brown algae A2 : Red algae A3 : Ble green algae A4 : Green algae	4.0	1.00

Objective Question				
66	66	Which plant have seed without producing flowers A1 : Gymnosperms A2 : Angiosperms A3 : Fungi A4 : Algae	4.0	1.00
Objective Question				
67	67	Megasporophyll in gymnosperms is termed as A1 : Leaf A2 : Stamen A3 : Stem A4 : Carpel	4.0	1.00
Objective Question				
68	68	Coralloid roots are found in A1 : Cycas A2 : Gnetum A3 : Pinus A4 : Gingo	4.0	1.00
Objective Question				
69	69	BOD stands for A1 : Biochemical oxygen demand A2 : Biological oxygen demand A3 : Biochemical oxidation demand A4 Biotic oxygen demand	4.0	1.00

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Objective Question				
70	70	5^{th} June is celebrated as A1 : World forest day A2 : World environment day A3 : World population day A4 : World wildlife day	4.0	1.00
Objective Question				
71	71	Noise pollution is measured by sound meter in the unit of A1 : Decibel A2 : Hertz A3 : Joule A4 : Sound	4.0	1.00
Objective Question				
72	72	Phylloclade is a modification of A1 : Stem A2 : Root A3 : Leaf A4 : Bark	4.0	1.00
Objective Question				
73	73	Development of egg without fertilization is A1 : Apocarpy A2 : Apomixis A3 : Parthenocarpy	4.0	1.00

		A4 : Parthenogenesis		
Objective Question				
74	74	Red rust of tea is caused by A1 : Red algae A2 : A fungus A3 : Bacterium A4 : Gymnosperm	4.0	1.00
Objective Question				
75	75	Water bloom is generally caused by A1 : Bacteria A2 : Blue-green algae A3 : *Hydrilla* A4 : Green algae	4.0	1.00
Objective Question				
76	76	What is the end product of photosynthesis? A1 : Water A2 : Glucose and oxygen A3 : Carbon dioxide A4 : Nitrogen	4.0	1.00
Objective Question				
77	77	White rust of crucifers is caused by A1 : *Phytophthora* A2 : *Puccinia*	4.0	1.00

		A3 : *Albugo* A4 : *Ustilago*		
Objective Question				
78	78	Which of the following is analogous to mesosomes of bacteria? A1 : Golgi apparatus of eukaryotes A2 : Mitochondria of eukaryotes A3 : Lysozymes A4 : Ribosome	4.0	1.00
Objective Question				
79	79	Error free repair of double strand breaks in DNA is accomplished by A1 : Non-homologous end joining A2 : Base excision repair A3 : Homologous recombination A4 : Mismatch repair	4.0	1.00
Objective Question				
80	80	Fungi often colonize lesions due to other causes. Which of the following is least likely to be present as colonizer A1 : Sporothrix A2 : Candida A3 : Mucor A4 : Aspergillus	4.0	1.00
Objective Question				
81	81	Development of sporophytes without involvement of sexual reproduction A1 : Apospory A2 Apogamy	4.0	1.00

		: A3 : Apomixis A4 : Apocarpy		
Objective Question				
82	82	Zygotic meiosis in the characteristics of A1 : Fungi A2 : Brophytes A3 : Algae A4 : Bacteria	4.0	1.00
Objective Question				
83	83	Endosperm is formed in Gymnosperms as A1 : After fertilization A2 : Before fertilization A3 : At the time of fertilization A4 : Alomg with the development of the embryo	4.0	1.00
Objective Question				
84	84	Which one of the following is one of the characteristics of a biological community? A1 : Stratification A2 : Sex ratio A3 : Death ration A4 : Natality	4.0	1.00
Objective Question				
85	85	Balbiani rings are found in the followings A1 : Polysomes	4.0	1.00

		A2 : Polytene chromosomes A3 : Autosomes A4 : Non-sense chromosomes		
Objective Question				
86	86	T-cells and B-cells are called as A1 : RBCs A2 : Lymphocytes A3 : Natural killer cells A4 : WBCs	4.0	1.00
Objective Question				
87	87	Fist biochemical to be produced commercially by microbial cloning and genetic engineering, is A1 : Fertility factor A2 : Penicillin A3 : Interferon A4 : Human insulin	4.0	1.00
Objective Question				
88	88	Polymerase chain reaction is most useful in A1 : DNA synthesis A2 : Protein synthesis A3 : DNA amplification A4 : Amino acid synthesis	4.0	1.00
Objective Question				
89	89	In callus culture, roots can be induced by the supply of	4.0	1.00

		A1: Cytokinin A2: Gibberellin A3: Auxin A4: Ethylene		
Objective Question				
90	90	A diploid population having individuals with different chromosome numbers ranging from 2N + 3 to 2N − 3 is a A1: Diploidy A2: Aneuploidy A3: Polyploidy A4: Triploidy	4.0	1.00
Objective Question				
91	91	Which one of the following condition/set of conditions is essential for successful exploitation of heterocyst? A1: Male sterility and high heterocyst A2: High heterolysis effect A3: Male sterility A4: High heterocyst and a method for commercial production of hybrid seeds	4.0	1.00
Objective Question				
92	92	Which one of the following is NOT a PCR-based molecular marker? A1: AP-PCR A2: RAPD A3: DAF A4: RELP	4.0	1.00
Objective Question				

93	93	Which of the following cell possess poly morphonucleus A1 : Neutrophils A2 : B- cells A3 : macrophage A4 : erythrocyte	4.0	1.00
Objective Question				
94	94	Secondary immune response is generated due to A1 : Naive B cells A2 : Memory cells A3 : Naive T cells A4 : NK cells	4.0	1.00
Objective Question				
95	95	Which of the following is not the characteristics of histoplasmosis A1 : mycelial phase in the soil A2 : Person to person transmission A3 : Specific geographic distribution A4 : Yeasts in tissue	4.0	1.00
Objective Question				
96	96	In a comparative study of grassland ecosystem and pond ecosystem, it may be observed that A1 : the abiotic components are almost similar A2 : primary and secondary consumers are similar A3 : the biotic components are almost similar A4 : both biotic and abiotic components are different	4.0	1.00

Objective Question				
97	97	Assertion: Tropical rain forests are disappearing fast from developing countries such as India. Reason: No value is attached to these forests because these are poor in biodiversity. The correct answer is: A1 : Both Assertion and Reason are true and Reason is the correct explanation of the Assertion A2 : Both Assertion and Reason are true but the Reason is not the correct explanations of Assertion. A3 : Assertion is true, but Reason is false A4 : Both Assertion and Reason are false	4.0	1.00
Objective Question				
98	98	Both heterospory and circinateptyxis occur in A1 : Dryopteris A2 : Funaria A3 : Pinus A4 : Cycas	4.0	1.00
Objective Question				
99	99	Gasohol is defined as A1 : ethanol A2 : Petrol A3 : Hydrogen A4 : Natural gas	4.0	1.00
Objective Question				
100	100	Consider a short double stranded linear DNA molecule of 10 complete turns with 10.5 bp/turn. The end of the DNA molecule are sealed together to make a relaxed circle. This relaxed circle will have linking number of A1 : 105 A2 : 20.5 A3 10	4.0	1.00

		: A4 10.5 :		