

## DU MSc Botany

Sr.No	Question Id	Question Description	Question Body	Options
1	2345	DU_J19_MSC_BOT_Q01	Channel proteins that are located in the outer membrane of Gram-negative bacteria are known as	9377: barrels , 9378: murins , 9379: porins, 9380: granules ,
2	2346	DU_J19_MSC_BOT_Q02	Gram-negative bacteria are more resistant to antibiotics than Gram-positive bacteria due to the presence of	9381: peptidoglycan wall., 9382: outer lipopolysaccharide layer.,  9383: porin protein., 9384: teichoic acid. ,
3	2347	DU_J19_MSC_BOT_Q03	Dormant, tough, non-reproductive structure, produced by bacteria to tide over unfavourable conditions is known as:	9385: endospore , 9386: sclerotium , 9387: sporocarp , 9388: heterocyst ,
4	2348	DU_J19_MSC_BOT_Q04	Three-dimensional structures of a cell can be studied by using which of the following microscopes?	9389: Bright field , 9390: Phase contrast , 9391: Fluorescent , 9392: Differential interference contrast ,
5	2349	DU_J19_MSC_BOT_Q05	Algae that grow at the interface of water and atmosphere are called as	9393: epipelagic , 9394: neustonic , 9395: planktonic , 9396: benthic,
6	2350	DU_J19_MSC_BOT_Q06	Orthorhombic crystals of calcium carbonate are known as	9397: aragonite., 9398: calcite. , 9399: detritus. , 9400: stromatolites. ,
7	2351	DU_J19_	Which one of the following amino acids has a	9401: Lysine ,

		MSC_BOT_Q07	nonpolar, aliphatic R group?	9402: Histidine , 9403: Arginine , 9404: Glycine,
8	2352	DU_J19_MSC_BOT_Q08	Which one of the following is a phospholipid?	9405: Methionine , 9406: Valine , 9407: Proline , 9408: Lecithin ,
9	2353	DU_J19_MSC_BOT_Q09	Majority of the enzymes are inactive	9409: at 25°C , 9410: between 25-30°C , 9411: at 15°C , 9412: above 75°C ,
10	2354	DU_J19_MSC_BOT_Q10	The concept of symbiogenesis was first articulated by	9413: Ivan Wallin , 9414: Lynn Margulis , 9415: Konstantin Mereschkowski ,  9416: Lynn Sagan,
11	2444	DU_J19_MSC_BOT_Q100	Which one of the following statements <b>is not</b> true?	9773:The grouping of taxa by overall similarity is called phenetics. ,  9774:Verticillaster is the characteristic inflorescence of Lamiaceae. ,  9775:Cypsela is characteristic fruit of Poaceae ,  9776:Cremocarp is characterstic fruit of Apiaceae ,
12	2355	DU_J19_MSC_BOT_Q11	The number of nucleosomes associated with one turn of solenoid configuration of chromatin is	9417:2, 9418:4, 9419:6, 9420:8,
13	2356	DU_J19_MSC_BOT_Q12	Dolipore septum is a characteristic of	9421: Basidiomycetes. , 9422: Ascomycetes. , 9423: Zygomycetes. ,

				9424: Chytridiomycetes.,
14	2357	DU_J19_ MSC_BOT _Q13	Amphigynous antheridium is found in the genus	9425: <i>Phytophthora</i> . , 9426: <i>Alternaria</i> . , 9427: <i>Fusarium</i> . , 9428: <i>Botrytis</i> . ,
15	2358	DU_J19_ MSC_BOT _Q14	The sexual fruiting body in <i>Neurospora</i> is called as	9429: cleistothecium. , 9430: pseudothecium. , 9431: perithecium. , 9432: apothecium. ,
16	2359	DU_J19_ MSC_BOT _Q15	A globular or hook-like intracellular structure formed by a biotrophic fungus/oomycete for absorption of nutrients from the host is known as	9433: sclerotium. , 9434: vesicle. , 9435: haustorium. , 9436: sporophore.,
17	2360	DU_J19_ MSC_BOT _Q16	Which phylum contains organisms that most closely resemble the common ancestor of fungi and animals?	9437: Zygomycota , 9438: Ascomycota , 9439: Chytridiomycota , 9440: Basidiomycota,
18	2361	DU_J19_ MSC_BOT _Q17	The smallest known virus is	9441: <i>Escherichia coli</i> , 9442: Vaccinia virus , 9443: Tobacco mosaic virus ,  9444: Tobacco necrosis satellite virus ,
19	2362	DU_J19_ MSC_BOT _Q18	Which one of the following contributes to the formation of peatlands?	9445: <i>Riccia</i> , 9446: <i>Porella</i> , 9447: <i>Cooksonia</i> , 9448: <i>Sphagnum</i> ,
20	2363	DU_J19_ MSC_BOT _Q19	Which one of the following statements <b>is not</b> correct?	9449: In bryophytes, meiosis occurs in the gametangia to produce sperms and eggs ,  9450: In <i>Anthoceros</i> , each cell contains single large chloroplast with a pyrenoid ,

				9451:Amphigastria are found in <i>Porella</i> , 9452:In <i>Funaria</i> , the dominant stage of life cycle is gametophytic ,
21	2364	DU_J19_ MSC_BOT _Q20	In <i>Pellia</i> , the sporogenous tissue develops from the	9453: epidermis. , 9454: amphithecium. , 9455: endothecium. , 9456: columella. ,
22	2365	DU_J19_ MSC_BOT _Q21	Which one of the following <b>is not</b> found in <i>Marchantia</i> ?	9457:Smooth walled as well as tuberculated rhizoids ,  9458:Barrel shaped epidermal pores in the thallus ,  9459:Elaters , 9460:Filamentous protonema ,
23	2366	DU_J19_ MSC_BOT _Q22	Transfusion tissue in <i>Cycas</i> functions as	9461: lateral conducting channel for water in the leaves. ,  9462: mucilage secreting tissue in the ducts. , 9463: micropyle closing tissue after pollination. , 9464: nutritive tissue for embryo. ,
24	2367	DU_J19_ MSC_BOT _Q23	Which type of wood is found in <i>Pinus</i> and <i>Cycas</i> ?	9465:Pycnoxylic in <i>Pinus</i> , and manoxylic in <i>Cycas</i> , 9466:Manoxylic in <i>Pinus</i> , and pycnoxylic in <i>Cycas</i> , 9467:Pycnoxylic in both , 9468:Manoxylic in both ,
25	2368	DU_J19_ MSC_BOT _Q24	Which of the following statements is NOT correct about <i>Gnetum</i> ?	9469:The secondary wood contains vessels. ,

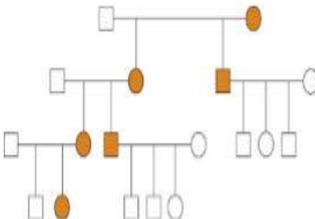
		_Q24		<p>9470: Tapetal layer is completely absent in the microsporangium. ,</p> <p>9471: The female gametophyte is formed before fertilization. ,</p> <p>9472: There are no distinct archegonia, and some free nuclei of the female gametophyte function as eggs. ,</p>
26	2369	DU_J19_ MSC_BOT _Q25	The microsporangia in the male cone and ovules in female cones of <i>Pinus</i> are positioned on the	<p>9473: adaxial surface and abaxial surface of the sporophylls, respectively ,</p> <p>9474: abaxial surface and adaxial surface of the sporophylls, respectively ,</p> <p>9475: adaxial surface of the sporophylls ,</p> <p>9476: abaxial surface of the sporophylls ,</p>
27	2370	DU_J19_ MSC_BOT _Q26	Trichoblasts are	<p>9477: cells in the root epidermis that gives rise to root hair ,</p> <p>9478: epidermal outgrowths that may or may not be glandular,</p> <p>9479: cells that markedly differ from other cells in the same tissue ,</p> <p>9480: excessively multiplying cells in the root epidermis ,</p>

28	2371	DU_J19_ MSC_BOT _Q27	Which of the following statement is <b><u>not</u></b> <b><u>true</u></b> about lenticels?	9481:They are formed by the higher activity of phellogen in some limited areas of the periderm ,  9482:They permit the entry of air through the peridem , 9483:They are found in stems as well as roots , 9484:They start appearing during the early stages of primary growth ,
29	2372	DU_J19_ MSC_BOT _Q28	Mesogenous stomata refers to stomata	9485:occurring in mesophytic plants. ,  9486:in which all the subsidiary cells have a common origin with guard cells. ,  9487:having subsidiary cells that are indistinguishable from other epidermal cells. . 9488:having subsidiary cells that are aligned parallel to the long axis of the guard cells. ,
30	2373	DU_J19_ MSC_BOT _Q29	The term 'Glabrous' refers to	9489: lack of trichomes. , 9490: presence of bristly hair. ,  9491: sparsely hairy., 9492: presence of glandular trichomes. ,
31	2374	DU_J19_ MSC_BOT _Q30	Volatile substances that attract pollinators are emitted by	9493: osmophores , 9494: hydathodes , 9495: nectaries , 9496: myrosine cells ,

32	2375	DU_J19_ MSC_BOT _Q31	Blastozone refers to the	9497: meristematic region located in the rib zone of Shoot Apical Meristem (SAM) ,  9498: intercalary meristem , 9499: marginal meristem of growing leaves , 9500: quiescent centre of Root Apical Meristem (RAM) ,
33	2376	DU_J19_ MSC_BOT _Q32	Hygroscopic fibers located in the reaction wood are termed as	9501: substitute fibers , 9502: libriform fibers , 9503: gelatinous fibers , 9504: fiber-tracheids,
34	2377	DU_J19_ MSC_BOT _Q33	Vestures refer to	9505: resin droplets accumulated in the non-conducting vessel elements ,  9506: wall ingrowths that impart sieve-like appearance to pits of the vessels ,  9507: Plasmodesmatal connections between any wood elements ,  9508: clogged hydathodes ,
35	2378	DU_J19_ MSC_BOT _Q34	Accessory cambia, the activity of which leads to formation of a series of cylinders of secondary vascular tissues are found in	9509: Chenopodiaceae , 9510: Bignoniaceae , 9511: Apocynaceae , 9512: Asclepiadaceae ,
36	2379	DU_J19_ MSC_BOT _Q35	Which of the following fruits <u>do not</u> have edible mesocarp?	9513: <i>Carica papaya</i> , 9514: <i>Punica granatum</i> , 9515: <i>Tamarindus indica</i> , 9516: <i>Mangifera indica</i> ,
37	2380	DU_J19_ MSC_BOT _Q36	Which one of the following is used as a sweetener?	9517: <i>Gymnema sylvestre</i> , 9518: <i>Stevia rebaudiana</i> ,

		_Q30		9519: <i>Syzygium cumini</i> , 9520: <i>Carica papaya</i> ,
38	2381	DU_J19_ MSC_BOT _Q37	Which one of the following <b>is not</b> a constituent of an ayurvedic herbal formulation, 'Trifala'?	9521: <i>Terminalia bellerica</i> , 9522: <i>Terminalia arjuna</i> , 9523: <i>Terminalia officinalis</i> , 9524: <i>Embllica officinalis</i> ,
39	2382	DU_J19_ MSC_BOT _Q38	Fruits of which of the following pair of plants possess aril?	9525: <i>Litchi chinensis</i> and <i>Aegle marmelos</i> ,  9526: <i>Myristica fragrans</i> and <i>Litchi chinensis</i> ,  9527: <i>Vitis vinifera</i> and <i>Aegle marmelos</i> ,  9528: <i>Litchi chinensis</i> and <i>Ananas cosmosus</i> ,
40	2383	DU_J19_ MSC_BOT _Q39	Which one of the following is an <b>incorrect</b> combination?	9529: <i>Betula bhojpatra</i> – bhojpatra ,  9530: <i>Diospyros melanoxylon</i> – Indian beedi , 9531: <i>Pongamia pinnata</i> – biodiesel ,  9532: <i>Cichorium intybus</i> – khus-khus ,
41	2384	DU_J19_ MSC_BOT _Q40	Which one of the following sets of compounds is used as biopesticides?	9533: Pyrethrin, Azadirachtin, Spilanthol ,  9534: Azadirachtin, Taxol, Curcumin ,  9535: Pyrethrin, Jatrophine, Curcumin ,  9536: Capsaicin, Citronella oil, Piperine ,
42	2385	DU_J19_ MSC_BOT _Q41	Aleurone layer is rich in	9537: essential oils. , 9538: proteins. ,

		_Q41		9539:starch grains. , 9540:dietary fibers. ,
43	2386	DU_J19_ MSC_BOT _Q42	Gynobasic style is a characteristic feature of the family	9541:Papilionaceae , 9542:Asteraceae , 9543:Lamiaceae , 9544:Apiaceae ,
44	2387	DU_J19_ MSC_BOT _Q43	In a population of diploid individuals, six alleles exist for a particular gene. What is the expected number of alleles present in a chromosome; and types of alleles in a heterozygous individual and in a homozygous individual respectively?	9545:1; 2, 2 , 9546:2; 2, 1 , 9547:1; 2, 1 , 9548:2; 2, 1 ,
45	2388	DU_J19_ MSC_BOT _Q44	Which one of the following statements <b>is false</b> for a population that is under natural selection?	9549:The population will not exhibit Hardy-Weinberg equilibrium. ,  9550:The genotypic frequencies can be estimated if the allele frequencies are known. ,  9551:At a given point of time for any given bi-allelic gene, the sum of the allele frequencies would be equal to one. ,  9552:At a given point of time, the sum total of all genotypic frequencies is equal to 1. ,
46	2389	DU_J19_ MSC_BOT _Q45	In the fine mapping of <i>rII</i> locus, Benzer was able to demonstrate intragenic recombination in phages mainly because	9553:intragenic recombination occurs only in phages. ,  9554:of the large number of phage progeny that could be screened. ,  9555:making crosses in phages is easier. ,

				9556:phages have haploid genomes. ,
47	2390	DU_J19_MSC_BOT_Q46	In <i>Lymnaea peregra</i> , coiling behaviour is controlled by a single gene. Dextral coiling behaviour is governed by dominant allele 'D' and sinistral coiling by recessive allele 'd'. When a cross is made using sinistral as female and dextral as male, all the snails are sinistral in F <sub>1</sub> and dextral in F <sub>2</sub> . Again in F <sub>3</sub> a ratio of 3 dextral and 1	9557:Mendelian inheritance , 9558:Cytoplasmic maternal inheritance , 9559:Cytoplasmic maternal effect , 9560:Epistasis ,
48	2391	DU_J19_MSC_BOT_Q47	Study the following pedigree. What can be the possible inheritance pattern? 	9561:X-linked inheritance , 9562:Y-linked inheritance , 9563:Mitochondrial inheritance , 9564:Autosomal inheritance ,
49	2392	DU_J19_MSC_BOT_Q48	Which of the following is <b>not true</b> about the classic experiment carried out to study the nature of mutations by the 1969 Nobel prize-winning team of Max Luria and Salvador Delbruck?	9565:It is also called as Fluctuation Test , 9566:It demonstrated that genetic mutations arise in the absence of selection, and not as a response to selection. , 9567:They inoculated equal number of <i>E. coli</i> into separate culture tubes with and without T1 phage. , 9568:Equal number of T1 phage resistant colonies were obtained in all the plates. ,

50	2393	DU_J19_MSC_BOT_Q49	A plant heterozygous for two tightly linked genes A and B, has the genotype AB/ab. Which of the following statements is <b>true</b> when the plant is self-pollinated?	<p>9569: The percentage of all the four types of gametes (AB, ab, Ab, aB) would be equal. ,</p> <p>9570: Gametes with genotype AB and ab will be less than those with aB and Ab. ,</p> <p>9571: Both loci will segregate in a 3:1 ratio. ,</p> <p>9572: The segregation ratio of the two genes will depend upon the distance between them. ,</p>
51	2394	DU_J19_MSC_BOT_Q50	Mark the correct pairing of scientists and their contributions 1 Telomerase II Sidney Altman and Thomas Cech 2 DNA Polymerase I III Arthur Kornberg 3 Ribozyme IV Elizabeth	<p>9573: I-2; II-1; III-4; IV-3 ,</p> <p>9574: I-4; II-3; III-1; IV-2 ,</p> <p>9575: I-4; II-3; III-2; IV-1 ,</p> <p>9576: I-3; II-4; III-2; IV-1 ,</p>
52	2395	DU_J19_MSC_BOT_Q51	The factor responsible for mediating binding of core RNA polymerase to promoter is	<p>9577: <math>\alpha</math>-70 ,</p> <p>9578: <math>\sigma</math>-70 ,</p> <p>9579: <math>\Gamma</math>-55 ,</p> <p>9580: <math>\delta</math>-70 ,</p>
53	2396	DU_J19_MSC_BOT_Q52	Which of the following enzyme is involved in tRNA synthesis?	<p>9581: RNA Polymerase I ,</p> <p>9582: RNA polymerase II ,</p> <p>9583: RNA Polymerase III ,</p> <p>9584: RNA polymerase IV ,</p>
54	2397	DU_J19_MSC_BOT_Q53	The study of man-made areas with complex, dynamic ecological systems, influenced by interconnected biological, physical and social components is called as	<p>9585: System Ecology. ,</p> <p>9586: Ecosystem Ecology. ,</p> <p>9587: Urban Ecology.,</p> <p>9588: Social Ecology. ,</p>
55	2398	DU_J19_MSC_BOT_Q54	Which of the following horizons in the soil profile has high amount of organic matter?	<p>9589: O ,</p> <p>9590: A ,</p> <p>9591: B ,</p> <p>9592: C ,</p>

56	2399	DU_J19_ MSC_BOT _Q55	Hyperthermophiles are heat loving microbes that can live in temperature optima above	9593:80 °C ,  9594:50 °C , 9595:60 °C , 9596:40 °C ,
57	2400	DU_J19_ MSC_BOT _Q56	A distribution in which individuals within a population have an equal chance of living anywhere within an area is called as	9597:Random. , 9598:Regular. , 9599:Clumped. , 9600:Contiguous. ,
58	2401	DU_J19_ MSC_BOT _Q57	Which of the following chemical substances are secreted by some animals for communication with other members of their species?	9601:Alkaloids , 9602:Phenols , 9603:Terpenoids , 9604:Pheromones ,
59	2402	DU_J19_ MSC_BOT _Q58	The probability of death of organisms with different ages in the current year is shown in	9605:Survivorship curve , 9606:Static life table , 9607:Cohort life table , 9608:Natality ,
60	2403	DU_J19_ MSC_BOT _Q59	The Shannon-Weiner index measures:	9609: Dominance , 9610: General diversity , 9611: Evenness , 9612: Similarity-dissimilarity ,
61	2404	DU_J19_ MSC_BOT _Q60	Which of the following statements on filiform apparatus is <b>not correct</b> ?	9613:It is a highly convoluted extension of the micropylar portion of the synergid wall. ,  9614:It increases the surface area of the plasma membrane of synergids. ,  9615:It controls pollen tube growth. ,  9616:It determines the polarity of the egg apparatus. ,

62	2405	DU_J19_ MSC_BOT _Q61	Hypostase refers to	9617:a cap-like structure of cutinized cells above the embryo sac. ,  9618:a group of cells below the embryo sac and above the funiculus. ,  9619:nucellar cells above the embryo sac. , 9620:parietal cells. ,
63	2406	DU_J19_ MSC_BOT _Q62	The members of which of the following angiosperm families <b>do not</b> form endosperm?	9621:Poaceae , 9622:Podostemaceae , 9623:Brassicaceae , 9624:Papilionaceae ,
64	2407	DU_J19_ MSC_BOT _Q63	Which of the following parts <b>is not</b> observed in a mature seed-coat?	9625:Epidermis , 9626:Aerenchyma , 9627:Hypodermis , 9628:Aril ,
65	2408	DU_J19_ MSC_BOT _Q64	Which one of the following statements <b>is not</b> true for aposporous embryo sac development?	9629:The first and second meiotic divisions result in a tetrad of megaspores. . 9630:Three megaspores degenerate while functional haploid megaspore undergoes megagametogenesis. ,  9631:All the four megaspores degenerate while an aposporous initial forms the embryo sac. ,  9632:Tetrad is surrounded by a callose wall. ,
66	2409	DU_J19_ MSC_BOT _Q65	Polysporangiate anthers are seen in the family	9633:Amborellaceae. , 9634:Anacardiaceae. , 9635:Annonaceae. , 9636:Agavaceae. ,

67	2410	DU_J19_MSC_BOT_Q66	In a pollen wall, the following enzymes serve as markers for intine and exine, respectively.	9637:Acid phosphatases and esterases , 9638:Pectinases and catalases , 9639:Lipases and cutinases , 9640:Kinases and $\beta$ -1,3 glucanase ,
68	2411	DU_J19_MSC_BOT_Q67	Buzz pollination is associated with flowers, wherein the anthers exhibit	9641:longitudinal dehiscence. , 9642:valvular dehiscence. , 9643:poricidal dehiscence. , 9644:explosive dehiscence. ,
69	2412	DU_J19_MSC_BOT_Q68	Fluorochromatic reaction test to ascertain pollen viability was developed by	9645:P. Maheshwari. , 9646:E. Strasburger. , 9647:J. Heslop-Harrison. , 9648:S.G. Nawaschin. ,
70	2413	DU_J19_MSC_BOT_Q69	Which of the following statements <b>is not</b> correct about aquaporins?	9649:Aquaporins are found in both plant and animal cell membranes. , 9650:Phosphorylation and calcium concentration regulates aquaporin activity. , 9651:Activity of aquaporin is regulated by pH and reactive oxygen species. , 9652:Aquaporins cannot transport uncharged molecules like $\text{NH}_3$ . ,
71	2414	DU_J19_MSC_BOT_Q70	The water potential of pure water at atmospheric pressure is	9653:-2.3 bar. , 9654:+2.3 bar. , 9655:0 bar. , 9656:1 bar. ,

72	2415	DU_J19_MSC_BOT_Q71	In root nodules of legumes, leg-haemoglobin is important because it	9657:transports oxygen to the root nodule. , 9658:acts as an oxygen scavenger. ,  9659:provides energy to the nitrogen fixing bacterium. ,  9660:acts as a catalyst in transamination. ,
73	2416	DU_J19_MSC_BOT_Q72	Pfr shows maximum absorption at	9661:730 nm. , 9662:660 nm. , 9663:466 nm. , 9664:650 nm. ,
74	2417	DU_J19_MSC_BOT_Q73	In non-graminaceous plant roots, iron is transported across the plasma membrane as	9665:Both ferrous and ferric ions ,  9666:Fe-Chelate , 9667:Ferrous ions , 9668:Ferric ions ,
75	2418	DU_J19_MSC_BOT_Q74	Methionine is the precursor of which of the following plant growth regulators?	9669:Abscisic acid , 9670:Indole acetic acid , 9671:Cytokinins , 9672:Ethylene ,
76	2419	DU_J19_MSC_BOT_Q75	PEP carboxylase activity in C <sub>4</sub> and CAM plants is regulated by	9673:phosphorylation-dephosphorylation , 9674:oxidation-reduction , 9675:carboxylation-decarboxylation ,  9676:isomerization ,
77	2420	DU_J19_MSC_BOT_Q76	One molecule of Calmodulin, a calcium binding protein in eukaryotic cells binds to_____ Ca <sup>2+</sup> ions.	9677:4 , 9678:2 , 9679:8 , 9680:14 ,
78	2421	DU_J19_MSC_BOT_Q77	Anabolic component of the carbohydrate metabolism includes which one of the following processes?	9681:Glycogenolysis , 9682:Citric Acid Cycle , 9683:Glyconeogenesis ,

				9684:Uronic Acid Pathways ,
79	2422	DU_J19_MSC_BOT_Q78	High activity of sucrose synthase is present in	9685:tissues that synthesize sucrose , 9686:tissues that utilize sucrose , 9687:photosynthetic leaves , 9688:sucrose exporting tissue ,
80	2423	DU_J19_MSC_BOT_Q79	Which one of the following is considered to be a signal metabolite that regulates the partitioning between sucrose and starch synthesis?	9689:Fructose-2, 6-bisphosphate , 9690:Fructose-1, 6-bisphosphate , 9691:Fructose 6-phosphate , 9692:Fructose 2-phosphate ,
81	2424	DU_J19_MSC_BOT_Q80	Two different DNA molecules were isolated from a bacterial sample. Further experiments demonstrated that one of these (X) was composed of 40%A, 40%G, 10%T and 10%C but could not be cut by an exonuclease. The second DNA sample (Y) could be cut by the exonuclease and was found to be composed of 30%A, 30%T, 20%G and 20%C. Which one of the following statements can be correctly deduced from the above?	9693:DNA X has a double-stranded and linear structure , 9694:DNA Y has a double-stranded and circular structure , 9695:DNA X has a single-stranded and linear structure , 9696:DNA X has a single-stranded and circular structure ,
82	2425	DU_J19_MSC_BOT_Q81	The 5' – 3' nucleotide sequence of one of the strands of a double stranded DNA molecule is given below: 5' – ATGACGATGGACACATGACATAGACGATAATGCCGTGAC – 3' In the absence of T <sub>m</sub> effects, which one of the following sets of primers could, theoretically, be used to amplify the target sequence by PCR?	9697: 5' – ATGACGA – 3' and 5' – GTCACGG – 3' , 9698: 5' – TACTGCT – 3' and 5' – GGCACTG– 3' , 9699: 5' – TCGTCAT – 3' and 5' – CCGTGAC – 3' ,

				9700: 5' – ATGACGA – 3' and 5' – CCGTGAC – 3',
83	2426	DU_J19_MSC_BOT_Q82	In plant tissue culture, a high cytokinin : auxin ratio promotes the formation of	9701:roots. , 9702:callus. , 9703:embryos. , 9704:shoots. ,
84	2427	DU_J19_MSC_BOT_Q83	Which one of the following genes <b>does not</b> confer resistance to a herbicide?	9705:EPSPS , 9706:pat , 9707:ALS , 9708:nptII ,
85	2428	DU_J19_MSC_BOT_Q84	Which one of the following statements about cDNA libraries <b>is not</b> correct?	9709:They are generally composed of larger fragments as compared to genomic DNA libraries ,  9710:They can be used to study alternatively spliced forms of a gene ,  9711:They can be used to study quantitative variations in gene expressions levels between different tissues . 9712:They can be used to analyse variations in gene expression patterns between different developmental stages of a plant ,
86	2429	DU_J19_MSC_BOT_Q85	Which one of the following crops was the first to have its nuclear genome sequenced?	9713:Maize , 9714:Wheat , 9715:Rice , 9716:Barley ,
87	2430	DU_J19_MSC_BOT_Q86	The term "Bio-pharming" refers to	9717:genetically modified foods from plants. ,

		_Q86		9718:synthesis of drugs from transgenic plants/animals. , 9719:recombinant drugs from bacteria. , 9720:large scale farming of medicinal plants. ,
88	2431	DU_J19_ MSC_BOT _Q87	Which of the following is the regulatory body conferring approval for transgenic plants?	9721:NBPGR , 9722:NBA , 9723:GEAC , 9724:NBRI ,
89	2432	DU_J19_ MSC_BOT _Q88	Identify the <b>incorrect</b> combination from the following:	9725:Protoplast – E.C. Cocking , 9726:Edible vaccine – C.J. Arntzen , 9727:Somaclonal variation – F.C. Steward , 9728:GUS reporter system – R.A. Jefferson ,
90	2433	DU_J19_ MSC_BOT _Q89	Similarity resulting from common ancestry is called	9729:homoplasy , 9730:homology , 9731:homonym , 9732:convergence ,
91	2434	DU_J19_ MSC_BOT _Q90	Which one of the following is the most primitive basal angiosperm?	9733: <i>Amborella</i> , 9734: <i>Nymphaea</i> , 9735: <i>Magnolia</i> , 9736: <i>Hibiscus</i> ,
92	2435	DU_J19_ MSC_BOT _Q91	In species where pollen matures and is released prior to the maturation and receptivity of the gynoecium, the condition is called	9737:protogyny , 9738:protoandry , 9739:dichogamy , 9740:androdioecy ,
93	2436	DU_J19_ MSC_BOT _Q92	Which one of the following statements <b>is not</b> correct?	9741:All taxonomic keys are dichotomous. ,

		_Q92		9742:All keys comprise sequence of two contrasting statements, each statement is known as a lead. ,  9743:In a taxonomic key, the two leads together comprise a couplet. ,  9744:Keys are based on phylogeny. ,
94	2437	DU_J19_ MSC_BOT _Q93	Glucosinolates do not occur in	9745:Brassicaceae , 9746:Papaveraceae , 9747:Capparaceae , 9748:Fabaceae ,
95	2438	DU_J19_ MSC_BOT _Q94	A pollen grain with colpi occurring in the equatorial region is called	9749:zonocolpate , 9750:zonoporate , 9751:zonoaperturate , 9752:colporate ,
96	2439	DU_J19_ MSC_BOT _Q95	A binomial in which the genus name and specific epithet are identical in spelling is called	9753:Autonym , 9754:Tautonym , 9755:Synonym , 9756:Basionym ,
97	2440	DU_J19_ MSC_BOT _Q96	Which one of the following <b>is not</b> a member of Poaceae?	9757: <i>Hordeum vulgare</i> , 9758: <i>Triticum aestivum</i> , 9759: <i>Cynodon dactylon</i> , 9760: <i>Secale cereale</i> ,
98	2441	DU_J19_ MSC_BOT _Q97	Lloyd Botanical Garden is located at	9761:Darjeeling , 9762:Ootacamund , 9763:Srinagar (Kashmir) , 9764:Dehra Dun ,
99	2442	DU_J19_ MSC_BOT _Q98	Which series <b>is not</b> included in the Gamopetalae in Bentham and Hooker's system of classification?	9765:Inferae , 9766:Heteromerae , 9767:Bicarpoellatae , 9768:Thalamiflorae ,
100	2443	DU_J19_ _Q99	Syngenesious stamens are characteristic of the	9769:Ranunculaceae ,

		MSC_BOT _Q99	family	9770:Malvaceae , 9771:Asteraceae , 9772:Brassicaceae ,
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