

DU MSc Microbiology

Sr.No	Question Id	Question Description	Question Body	Options
1	25183	DU_J19_MSC_MICRO_Q01	In year 1898, Martinus Beijerinck confirmed Iwanowski's results on tobacco mosaic virus and described it with phrase "Contagium Vivum Fluidum" which means	40727: Contagious vital flow, 40728: Soluble living germ, 40729: Fluid contamination, 40730: Flowing infectious particle,
2	25184	DU_J19_MSC_MICRO_Q02	Which of these require a helper virus for replication	40731: Tomato planta macho viroid (TPMVd), 40732: Hepatitis B virus (HBV), 40733: Hepatitis delta virus (HDV), 40734: Adenovirus (AV),
3	25185	DU_J19_MSC_MICRO_Q03	Choose the most appropriate option from below when considering forms of intracellular signaling:	40735: Paracrine only, 40736: Exocrine only, 40737: Synaptic only, 40738: Paracrine, endocrine and synaptic,
4	25186	DU_J19_MSC_MICRO_Q04	The process by which actin filaments are maintained at a constant length by the addition of subunits at one end and the removal of subunits at the other end is called:	40739: Treadmilling , 40740: Translocation , 40741: Translation , 40742: Nucleation ,
5	25187	DU_J19_MSC_MICRO_Q05	Yogurt is produced by which of the following types of fermentation processes?	40743: Mesophilic fermentation, 40744: Thermophilic fermentation,

				40745: Mesophilic and Thermophilic fermentation, 40746: Is not produced by fermentation,
6	25188	DU_J19_ MSC_MIC RO_Q06	The presence of <i>Pedicoccus cerevisiae</i> in beer causes which of the following diseases	40747: Sleeping sickness, 40748: Sarcina sickness , 40749: Pulmonary embolism, 40750: Septic sore throat,
7	25189	DU_J19_ MSC_MIC RO_Q07	The members of which bacterial phylum have their genetic material enclosed in a membrane?	40751: Chlamydia, 40752: Planctomycetes, 40753: Proteobacteria, 40754: Actinobacteria,
8	25190	DU_J19_ MSC_MIC RO_Q08	Rod in chain is the morphology of	40755: <i>Bacillus pumilus</i> , 40756: <i>Bacillus megaterium</i> , 40757: <i>Bacillus licheniformis</i> , 40758: <i>Bacillus subtilis</i> ,
9	25191	DU_J19_ MSC_MIC RO_Q09	Which of the following is not true for a bacteriophage?	40759: A very simple structure, 40760: Consist of either DNA or RNA, 40761: Bacteriophages are viruses, 40762: Complex structure that infects bacteria,
10	25192	DU_J19_ MSC_MIC RO_Q10	Lysogenic strains of bacteriophage are also called	40763: Temperate phages, 40764: Virulent Phages,

				40765: Filamentous Phages, 40766: Atemperate Phages,
11	25282	DU_J19_ MSC_MIC RO_Q100	A draft tube is generally fitted in which of the following bioreactor design types?	41123: Air-Lift Bioreactor, 41124: Fluidized-Bed Bioreactor, 41125: Membrane Bioreactors, 41126: Cyclone Bioreactors,
12	25193	DU_J19_ MSC_MIC RO_Q11	DNA polymerase I is:	40767: The primary polymerase that synthesizes long DNA chains during DNA replication, 40768: A polymerase that is part of the nucleotide excision repair pathway, 40769: Devoid of proof-reading activity, 40770: A part of the eukaryotic replisome,
13	25194	DU_J19_ MSC_MIC RO_Q12	The protein that triggers the SOS response to DNA damage is:	40771: LexA, 40772: FEN1, 40773: RecA, 40774: AP endonuclease,
14	25195	DU_J19_ MSC_MIC RO_Q13	The natural inhibitory substances present in milk are	40775: Lactose and fats, 40776: Casein and fructose, 40777: Cholesterol and fat,

				40778: Lactoperoxidase and Agglutinins,
15	25196	DU_J19_MSC_MIC RO_Q14	The main microorganism in tempeh production at an industrial scale is	40779: <i>Rhizopus oligosporus</i> , 40780: <i>Actinimucor elegans</i> , 40781: <i>Aspergillus oryzae</i> , 40782: <i>Aspergillus niger</i> ,
16	25197	DU_J19_MSC_MIC RO_Q15	Bacteria having linear chromosome	40783: <i>Pseudomonas</i> , 40784: <i>Vibrio</i> , 40785: <i>Mycoplasma</i> , 40786: <i>Borrelia</i> ,
17	25198	DU_J19_MSC_MIC RO_Q16	Which of these is not a function of teichoic acid?	40787: Protects the cell from harmful substance, 40788: Maintains the structure of cell envelope, 40789: Has a role in cell division, 40790: Anchors LPS in outer membrane,
18	25199	DU_J19_MSC_MIC RO_Q17	When originally conceived, the Baltimore scheme of classification of viruses consisted of only six classes. Which class of viruses was added subsequently to this scheme?	40791: DNA viruses with RNA intermediate in life cycle, 40792: Viruses which require helper viruses to replicate, 40793: Viruses which do not encode any proteins, 40794: RNA viruses with segmented genomes,
19	25200	DU_J19_MSC_MIC RO_Q18	Which one of these does not function as a receptor or co-receptor for HIV-1 virus	40795: CD4, 40796: CCR5, 40797: CXCR4,

				40798: CAR4,
20	25201	DU_J19_ MSC_MIC RO_Q19	The primase responsible for initiating the synthesis of each Okazaki fragment is:	40799: DnaA, 40800: DnaB , 40801: DnaC, 40802: DnaG,
21	25202	DU_J19_ MSC_MIC RO_Q20	In RNA splicing, an intermediate consisting of a circular structure with a tail that is created by a 5' to 2' bond is called:	40803: lariat, 40804: branch site, 40805: spliceosome, 40806: stem loop,
22	25203	DU_J19_ MSC_MIC RO_Q21	Water activity (aw) of pure water is	40807: 1.0, 40808: 0.75, 40809: 0.5, 40810: 0.25,
23	25204	DU_J19_ MSC_MIC RO_Q22	Which of the following regions of the atmosphere is very important in the dispersal of microbes?	40811: Troposphere, 40812: Stratosphere, 40813: Mesosphere, 40814: Ionosphere,
24	25205	DU_J19_ MSC_MIC RO_Q23	Lysozyme attacks bacterial cell wall by	40815: Breaking peptide interbridge, 40816: Inhibiting transpeptidation, 40817: Breaking glycosidic linkage, 40818: Dephosphorylating amino acids in the peptidoglycan layer,
25	25206	DU_J19_ MSC_MIC RO_Q24	Ziehl-Neelsen staining can be used to stain	40819: <i>Mycobacterium tuberculosis</i> only , 40820: <i>Nocardia</i> only , 40821: Both <i>Mycobacterium tuberculosis</i> and <i>Nocardia</i> ,

				40822: Neither <i>Mycobacterium tuberculosis</i> nor <i>Nocardia</i> ,
26	25207	DU_J19_ MSC_MIC RO_Q25	Which one of these viruses is associated with a rare skin cancer in humans	40823: Epstein Barr Virus, 40824: Merkel Cell Polyomavirus, 40825: Hepatitis B Virus, 40826: Human T-Cell Lymphotropic Virus Type 1,
27	25208	DU_J19_ MSC_MIC RO_Q26	The bivalent Poliovirus vaccine contains	40827: Type 1 and Type 2 strains, 40828: Type 1 and Type 3 strains, 40829: Type 2 and Type 3 strains, 40830: There is no bivalent polio vaccine,
28	25209	DU_J19_ MSC_MIC RO_Q27	The three main tRNA binding sites in the ribosome are:	40831: A, D, E, 40832: A, P, E, 40833: A, E, T, 40834: A, P, T,
29	25210	DU_J19_ MSC_MIC RO_Q28	<i>Saccharomyces cerevisiae</i> is	40835: A facultative anaerobe, 40836: A facultative aerobe, 40837: An obligate aerobe, 40838: An obligate anaerobe,
30	25211	DU_J19_ MSC_MIC RO_Q29	The fungus <i>Glomerella tucumanensis</i> causes	40839: Red rot disease of sugarcane, 40840: Black rot of crucifers,

				40841: Black rot of sugarcane, 40842: Green rot of crucifers,
31	25212	DU_J19_ MSC_MIC RO_Q30	Which of the following enzyme's activity is unique to heterofermentative lactic acid bacteria	40843: Transaldolase, 40844: Transketolase , 40845: Phosphoketolase, 40846: Phosphoaldolase ,
32	25213	DU_J19_ MSC_MIC RO_Q31	Which of the following is transported by facilitated diffusion in <i>E. coli</i> ?	40847: Glucose, 40848: Maltose, 40849: Glycerol, 40850: Lactose ,
33	25214	DU_J19_ MSC_MIC RO_Q32	The first viral vector-based gene therapy to be approved for clinical use in humans	40851: Gendicine, recombinant adenovirus engineered to express wildtype p53 , 40852: Glybera, recombinant adeno-associated virus for treatment of hereditary lipoprotein lipase deficiency , 40853: Strimvelis, recombinant gammaretrovirus to treat patients with a very rare disease Severe Combined Immunodeficiency due to Adenosine Deaminase deficiency , 40854: No gene therapy has ever been approved for human use till date ,
34	25215	DU_J19_ MSC_MIC RO_Q33	Influenza A virus genome consist of	40855: Eight segments of negative sense RNA,

		RO_Q33		40856: Ten segments of positive sense RNA, 40857: Ten segments of negative sense RNA, 40858: Twelve segments of double stranded RNA,
35	25216	DU_J19_ MSC_MIC RO_Q34	A lambda phage carrying a mutation in the nutR site would form:	40859: turbid plaques, 40860: clear plaques, 40861: small plaques with fuzzy edge, 40862: no plaques,
36	25217	DU_J19_ MSC_MIC RO_Q35	The ability of microorganisms to maintain balance internally against stress is called	40863: Ecosystem management, 40864: Biological spectrum management, 40865: Ecological niche, 40866: Homeostasis ,
37	25218	DU_J19_ MSC_MIC RO_Q36	Anderson sampler is employed to enumerate microbes in	40867: Polluted rivers, 40868: Deep ocean, 40869: Atmosphere, 40870: Ground water,
38	25219	DU_J19_ MSC_MIC RO_Q37	Which of the following is the mode of action of formaldehyde	40871: Shows oxidizing property, 40872: Changes permeability of plasma membrane, 40873: Combines with vital nitrogen compounds, 40874: Interferes with respiration,
39	25220	DU_J19_ MSC_MIC RO_Q38	Which of the following compounds cannot give rise to the net synthesis of glucose	40875: Lactate, 40876: Glycerol, 40877: Acetyl CoA,

				40878: Oxaloacetate,
40	25221	DU_J19_MSC_MIC RO_Q39	Which of the following provides the longest lasting immunity to host against an infectious agent?	40879: Naturally acquired passive immunity, 40880: Artificially acquired passive immunity, 40881: Naturally acquired active immunity, 40882: Artificially acquired active immunity,
41	25222	DU_J19_MSC_MIC RO_Q40	Which of the following substances will not stimulate an immune response unless they are bound to a larger molecule?	40883: Antigen, 40884: Virus, 40885: Hapten, 40886: Miligen,
42	25223	DU_J19_MSC_MIC RO_Q41	A DNA fragment to be used as a probe in Southern blotting could be radiolabelled by:	40887: nick translation, 40888: S1 nuclease treatment, 40889: DNA footprinting, 40890: DNaseI treatment,
43	25224	DU_J19_MSC_MIC RO_Q42	Which of the following is known as a blue enzyme for green chemistry	40891: Glucose oxidase, 40892: Superoxide Dismutase , 40893: Laccase, 40894: Pectinase,
44	25225	DU_J19_MSC_MIC RO_Q43	Eutrophication process with reference to a water body is a sudden increase in	40895: CO ₂ consumption, 40896: Copper and iron, 40897: Phosphorus and nitrogen, 40898: Carbon sources,
45	25226	DU_J19_MSC_MIC RO_Q44	The Michaelis constant K_m is	40899: Numerically equal to $\frac{1}{2} V_{max}$,

		RO_Q44		40900: Dependant on enzyme concentration, 40901: Numerically equal to substrate concentration that gives half-maximal velocity, 40902: Numerically equal to twice the V_{max} ,
46	25227	DU_J19_ MSC_MIC RO_Q45	Which of the following enzyme's activity is dependent on thiamine?	40903: pyruvate carboxylase, 40904: fumarase, 40905: α -ketoglutarate dehydrogenase, 40906: citrate synthase,
47	25228	DU_J19_ MSC_MIC RO_Q46	Which of the following immune cells or molecules are most effective at destroying intracellular pathogens?	40907: T helper cells, 40908: B cells, 40909: Complement, 40910: T cytolytic cells,
48	25229	DU_J19_ MSC_MIC RO_Q47	The specificity of an antibody is due to	40911: Its valence, 40912: The heavy chains, 40913: The Fc portion of the molecule, 40914: The variable portion of the heavy and light chains,
49	25230	DU_J19_ MSC_MIC RO_Q48	Forensic analysts use DNA fingerprinting, a technique based on:	40915: RAPD, 40916: DNA sequencing, 40917: RFLP, 40918: RACE,
50	25231	DU_J19_ MSC_MIC RO_Q49	Plasma arc furnace during incineration is generally used for	40919: Solid waste management, 40920: Ethanol distillation,

				40921: Acetic acid distillation,
				40922: Carbon dioxide sequestration ,
51	25232	DU_J19_ MSC_MIC RO_Q50	The Most Probable Number (MPN) method is based on which of the following statistical distribution methods?	40923: Poisson distribution, 40924: Binomial distribution, 40925: Geometric distribution, 40926: Discrete uniform distribution,
52	25233	DU_J19_ MSC_MIC RO_Q51	During oxygenic photosynthesis, O ₂ is evolved from	40927: Carbohydrate, 40928: Sunlight, 40929: Carbon dioxide, 40930: Water ,
53	25234	DU_J19_ MSC_MIC RO_Q52	A mutation is most likely to change three-dimensional conformation of a protein if	40931: It changes the amino-terminal amino acid, 40932: It changes the carboxy-terminal amino acid, 40933: It introduces proline in the middle of an alpha helix, 40934: There is a substitution of hydrophobic amino acid in place of hydrophilic amino acid,
54	25235	DU_J19_ MSC_MIC RO_Q53	Defects in neutrophil NADPH oxidase system produce:	40935: Chronic granulomatous disease, 40936: Chediak-Higashi disease, 40937: Hashimoto's disease, 40938: Leukocyte adhesion deficiency,

55	25236	DU_J19_ MSC_MIC RO_Q54	Pattern recognition receptors (PRR) include	40939: LPS, 40940: PAMPs, 40941: Lipoteichoic acid, 40942: Lectin-like molecules,
56	25237	DU_J19_ MSC_MIC RO_Q55	Non-composite bacterial transposons replicate by:	40943: cut-and-paste mechanism, 40944: replicative mechanism, 40945: dispersive mechanism, 40946: sigmoidal mechanism,
57	25238	DU_J19_ MSC_MIC RO_Q56	The composition of Bordeaux mixture is	40947: Copper sulfate (CuSO ₄) and Zinc chloride, 40948: Sodium hydroxide and Potassium hydroxide, 40949: Copper sulfate and Calcium hydroxide, 40950: Calcium hydroxide and Sodium hydroxide ,
58	25239	DU_J19_ MSC_MIC RO_Q57	The mechanism of plant pathogen control by <i>Trichoderma</i> is via	40951: Antibiosis only , 40952: Mycoparasitism only , 40953: Competition only , 40954: Antibiosis, mycoparasitism and competition ,
59	25240	DU_J19_ MSC_MIC RO_Q58	Which of the following act as a test organism in the procedure of the phenol-coefficient method	40955: <i>Escherichia coli</i> , 40956: <i>Salmonella typhi</i> , 40957: <i>Lactobacillus</i> ,

				40958: <i>Streptococcus faecalis</i> ,
60	25241	DU_J19_ MSC_MIC RO_Q59	Which of the following is used to disinfect skin but is not sporicidal	40959: Formaldehyde, 40960: Chlorine, 40961: Ethylene oxide, 40962: Quaternary ammonium salts,
61	25242	DU_J19_ MSC_MIC RO_Q60	Which of the following gene clusters do not contribute to antigen binding capabilities of antibodies	40963: VL, 40964: CL, 40965: VH, 40966: D,
62	25243	DU_J19_ MSC_MIC RO_Q61	Which of the following statements does not apply to IgG	40967: Appears early in the primary immune response, 40968: Neutralizes bacterial toxins, 40969: Can fix complement, 40970: Crosses the human placenta,
63	25244	DU_J19_ MSC_MIC RO_Q62	The microbial test used to assess the carcinogenic potential of a chemical compound is called:	40971: Microbial Limits test, 40972: Bioburden test, 40973: Ames Test, 40974: Coliform test,
64	25245	DU_J19_ MSC_MIC RO_Q63	Rice tungro disease is caused by	40975: Bacteria, 40976: Yeast, 40977: Fungi, 40978: Viruses ,
65	25246	DU_J19_ MSC_MIC RO_Q64	Polygalacturonases (PG) split pectin chain by	40979: Breaking linkages between two galacturonic acid residues , 40980: Removing two water molecules from the linkage,

				40981: Catalyzing the hydrolysis of two methyl esters, 40982: Breaking N-glycosidic bond,
66	25247	DU_J19_ MSC_MIC RO_Q65	Disposable petridishes are pre-sterilized by	40983: Ethylene oxide, 40984: Gamma irradiation, 40985: Steam, 40986: Beta irradiation,
67	25248	DU_J19_ MSC_MIC RO_Q66	During oxidative phosphorylation, the proton motive force generated by electron transport is used to	40987: Reduce O ₂ to H ₂ O , 40988: Induce a conformational change in ATP synthase , 40989: Generate the substrates ADP + Pi for ATP synthesis , 40990: Oxidize NADH to NAD ⁺ ,
68	25249	DU_J19_ MSC_MIC RO_Q67	Antibody titer refers to the	40991: Affinity of specific antibody, 40992: Absolute amount of specific antibody, 40993: Concentration of specific antibody, 40994: Highest dilution of antibody still able to give a positive result in a test system,
69	25250	DU_J19_ MSC_MIC RO_Q68	Langerhans' cells are found in	40995: Lymph, 40996: Lymph nodes, 40997: Periarteriolar lymphoid sheaths, 40998: Skin,

70	25251	DU_J19_ MSC_MIC RO_Q69	When making genomic DNA libraries for whole genome sequencing the choice of vectors to be used would be:	40999: Plasmids and cosmids, 41000: M13 and lambda phage vectors, 41001: Phagemids and plasmids, 41002: BACs and YACs,
71	25252	DU_J19_ MSC_MIC RO_Q70	Phaseolotoxin is produced by	41003: <i>Pseudomonas syringae</i> , 41004: <i>Pyricularia grisea</i> , 41005: <i>Pseudomonas aeruginosa</i> , 41006: <i>Pseudomonas fluorescens</i> ,
72	25253	DU_J19_ MSC_MIC RO_Q71	Which one of the following mathematical expressions correctly depicts the specific growth rate of the microorganism, where X is biomass, S is substrate, P is product, and μ is specific growth rate.	41007: $\mu=1/X*(dX/dt)$, 41008: $\mu=1/P*(dP/dt)$, 41009: $\mu=1/p*(dS/dt)$, 41010: $\mu=1/S*(dP/dt)$,
73	25254	DU_J19_ MSC_MIC RO_Q72	Heterothallism in fungi was discovered by	41011: Albert Blakeslee, 41012: Pontecarvo & Roper, 41013: J. Alexopoulos, 41014: G.W. Martin,
74	25255	DU_J19_ MSC_MIC RO_Q73	The only firmicutes known to be phototrophic	41015: <i>Corynebacterium</i> , 41016: <i>Halobacterium</i> , 41017: <i>Heliobacteria</i> , 41018: <i>Bifidobacterium</i> ,
75	25256	DU_J19_ MSC_MIC RO_Q74	Which type of toxin is Tetanus toxin	41019: Enterotoxin, 41020: Neurotoxin, 41021: Cytotoxin, 41022: Endotoxin,

76	25257	DU_J19_ MSC_MIC RO_Q75	Which of the following is a plasmid-mediated toxin?	41023: Diphtheria toxin, 41024: Botulism toxin, 41025: Tetanus toxin, 41026: Food-poisoning toxin of <i>S.aureus</i> ,
77	25258	DU_J19_ MSC_MIC RO_Q76	In <i>lac I^s</i> mutants, the lac operon would be:	41027: non-inducible, 41028: constitutive, 41029: inducible, 41030: repressible,
78	25259	DU_J19_ MSC_MIC RO_Q77	Under ideal conditions in continuous stirred-tank reactor (CSTR), when will biomass accumulation take place in the fermentor?	41031: $\mu > D$, 41032: $\mu = D$, 41033: $\mu < D$, 41034: There is no relation between μ and D ,
79	25260	DU_J19_ MSC_MIC RO_Q78	Under ideal conditions during ethanol production where there are no by-products, how much maximum ethanol can be recovered from fermentation broth initially supplied with 100 g/L of glucose?	41035: 30 g/L, 41036: 41 g/L, 41037: 51 g/L, 41038: 100 g/L,
80	25261	DU_J19_ MSC_MIC RO_Q79	Which of the following is most hyperthermophilic methanogen	41039: <i>Methanocaldococcus</i> , 41040: <i>Methanobrevibacter</i> , 41041: <i>Methanopyrus</i> , 41042: <i>Methanobacterium</i> ,
81	25262	DU_J19_ MSC_MIC RO_Q80	<i>Pyrococcus</i> is given the species name <i>furiosus</i> because	41043: It is an extremophile with optimum growth temperature of 100 °C , 41044: It is cocci in shape with polytrichous flagellation ,

				41045: It has 37 minutes of doubling time at boiling temperature and shows rapid swimming , 41046: It has an unusual respiratory system ,
82	25263	DU_J19_ MSC_MIC RO_Q81	Common opportunistic infections in patients with reduced antibody responses are	41047: Influenza, 41048: Intestinal helminths, 41049: Encapsulated bacteria, 41050: Atypical mycobacteria,
83	25264	DU_J19_ MSC_MIC RO_Q82	A pathogen which typically causes immune deficiency and increases the risk of secondary infection is	41051: Measles virus , 41052: Toxoplasma , 41053: <i>Candida albicans</i> , 41054: Rabies virus ,
84	25265	DU_J19_ MSC_MIC RO_Q83	The genome-wide <i>in vivo</i> binding sites of a transcriptional activator can be identified by:	41055: protein array, 41056: DNA microarray, 41057: ChIP-seq, 41058: EMSA,
85	25266	DU_J19_ MSC_MIC RO_Q84	What is the temperature at which microbial cultures are being preserved when they are stored in liquid Nitrogen?	41059: - 196°C , 41060: - 126°C , 41061: - 100°C , 41062: - 80°C ,
86	25267	DU_J19_ MSC_MIC RO_Q85	Which of the following industrial products is recovered cost-effectively using liquid-liquid extraction process from fermentation broth?	41063: Amylase enzyme , 41064: Citric acid , 41065: Penicillin G , 41066: None of these ,
87	25268	DU_J19_ MSC_MIC RO_Q86	Archaeal membranes differ from the eubacterial membranes as they possess	41067: Isoprene units only, 41068: Tetraethers only,

				41069: Long chain fatty acids only, 41070: Isoprene units, tetraethers and long chain fatty acids,
88	25269	DU_J19_MSC_MICRO_Q87	Biological indicator usually used to check working of an autoclave is	41071: Spores of <i>Bacillus subtilis</i> , 41072: Vegetative cells of <i>Clostridium botulinum</i> , 41073: Spores of <i>Clostridium</i> , 41074: Spores of <i>Geobacillus stearothermophilus</i> ,
89	25270	DU_J19_MSC_MICRO_Q88	Place the following five steps of ELISA in the correct order. 1. Add sample serum to each well. 2. Enzyme substrate is added to each well. 3. Anti-antibodies with enzyme are added to each well. 4. Each well is coated with antigen molecules in solution. 5. Excess antigen is washed and gelatin is used to coat any surface not coated with antigen.	41075: 5, 4, 3, 2, 1, 41076: 4, 5, 1, 3, 2, 41077: 1, 2, 3, 5, 4, 41078: 4, 5, 2, 1, 3,
90	25271	DU_J19_MSC_MICRO_Q89	RTS,S/AS01 is a vaccine currently undergoing clinical trial in humans against which disease or organism	41079: Kala Azar, 41080: Malaria, 41081: Dengue, 41082: <i>Helicobacter pylori</i> ,
91	25272	DU_J19_MSC_MICRO_Q90	Which of the following factors influence the filtration rate in a Cross-flow filtration strategy during fermentation?	41083: Temperature only, 41084: Viscosity only, 41085: Pressure only, 41086: Temperature, viscosity and pressure,
92	25273	DU_J19_MSC_MICRO_Q91	The media for recombinant protein production in mammalian cells can be sterilized by	41087: Autoclaving at 121°C , 41088: Boiling at 100°C ,

				41089: Filtration , 41090: A combination of all of these ,
93	25274	DU_J19_ MSC_MIC RO_Q92	What do MDR-TB and XDR-TB stand for	41091: Maximum-drug resistant tuberculosis and Extremely-drug resistant tuberculosis, 41092: Maximum-drug resistant tuberculosis and X-drug resistant tuberculosis. 41093: Multi-drug resistant tuberculosis and Extensively-drug resistant tuberculosis, 41094: Multi-drug resistant tuberculosis and X-drug resistant tuberculosis.
94	25275	DU_J19_ MSC_MIC RO_Q93	Griseofulvin is used in the treatment of	41095: Dermatophyte infections , 41096: Herpesvirus infection , 41097: Staphylococcus infection , 41098: All of these ,
95	25276	DU_J19_ MSC_MIC RO_Q94	<i>Deinococcus radiodurans</i> is radiation resistant bacterium because it accumulates high levels of	41099: Calcium, 41100: Manganese, 41101: Magnesium, 41102: Zinc,
96	25277	DU_J19_ MSC_MIC RO_Q95	In a fluid of newtonian viscosity, the rate of sedimentation of spherical particles during centrifugation is proportional to	41103: Square of the diameter of the particles, 41104: The diameter of the particles, 41105: Half of the diameter of the particles, 41106: Cube of the diameter of the particles,

97	25278	DU_J19_ MSC_MIC RO_Q96	What is sulfite waste liquor?	41107: A by-product from the paper industry, 41108: A by-product from the alcohol beverage industry, 41109: A by-product from Dye industry, 41110: A by-product from the sugar cane industry,
98	25279	DU_J19_ MSC_MIC RO_Q97	Without vaccination, which of these infections is almost 100% fatal	41111: HIV, 41112: Zika virus, 41113: Ebola virus, 41114: Rabies virus,
99	25280	DU_J19_ MSC_MIC RO_Q98	A patient with <i>H. pylori</i> infection is treated with drugs. The best method to detect presence of residual <i>H.pylori</i> infection in this person is	41115: Rapid urease test, 41116: Urea breath test, 41117: Endoscopy and biopsy, 41118: Serum anti <i>H.pylori</i> titer,
100	25281	DU_J19_ MSC_MIC RO_Q99	Lignin in the plant cell wall is degraded by	41119: Polyphenol oxidases, 41120: β -glucosidases , 41121: Glucose oxidase, 41122: Xanthine oxidase,