PU M Sc Microbiology

1 of 100
172 PU_2015_308
Nitrogen fixation in root nodule begins after the formation of:-

- Bacteriod
- Infection thread
- Hartig net
- Symbiosome

2 of 100
192 PU_2015_308
One virus species preventing multiplication of a second virus is called:-

- supervision
- Permutation
- Mutation
- Viral interference

3 of 100
174 PU_2015_308
The standard notation for radioisotope production is $^{14}N(n,p)^{14}C$, Radioisotope produced and particles emitted in this process are:-

- ^{14}C, n
- ^{14}C, p
- ^{14}N, p
- ^{14}N, n

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176 PU_2015_308
Glucose labeled with ^{14}C at C-1 is added to a solution containing the enzymes and cofactors of the oxidative phase of the pentose phosphate pathway. The radioactive label will be observed at:-

- C4 of ribulose 5-phosphate
- C1 of ribulose 5-phosphate
- C5 of ribulose 5-phosphate
- None of the carbon of ribulose 5-phosphate will have radiolabel

5 of 100
142 PU_2015_308
The mechanism that cause a gene to move from one linkage group to another is:-

- Translocation
- Crossing over
- Duplication
- Inversion

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141 PU_2015_308

Which of the following histone proteins are not involved in nucleosome assembly?

- H2B
- H2A
- H1
- H4

7 of 100

184 PU_2015_308

Amoxycillin is combined with clavulanic acid to inhibit:-

- DNA gyrace
- lactamase enzymes
- Protein synthesis
- Cell synthesis

8 of 100

130 PU_2015_308

Is the only class of immunoglobulin that can pass through the placenta:-

- IgA
- IgG
- IgM
- IgE

9 of 100

196 PU_2015_308

An example of an artificial virus is:-

- Vaccinia virus
- Mumps virus
- Reovirus
- Rabies virus

10 of 100

173 PU_2015_308

On action of glycogen phosphorylase, a molecule of _____ is released in one step.

- Glucose 6 phosphate
- Glucose
- Glucose 1 phosphate
- Inorganic phosphate

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101 PU_2015_308
A disease in which a pathogen remains inactive for a long period of time before becoming active is termed a:-

- Subacute disease
- Latent disease
- Chronic disease
- Acute disease

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138 PU_2015_308
Is not a factor responsible for the pathogenecity of virulent *Staphylococcus aureus*:-

- B-lactamase
- hyaluronidase
- M-protein
- coagulase

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151 PU_2015_308
The consensus sequence required for the initiation of translation is termed:-

- Pribnow Box
- Shine Dalgarno Sequence
- TATA Box
- Kozak Sequence

14 of 100
160 PU_2015_308
In a non-obligatory interaction if both partners are mutually benefitted it is called as:-

- Cooperation
- Commensalism
- Competition
- Mutualism

15 of 100
157 PU_2015_308
Specificity of an enzyme depends on:-

- Km
- Turnover number
- Active site
- Vmax

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178 PU_2015_308
The source of one of the nitrogen of Urea is:-

- Glutamine
- Glycine
- Arginine
- NH_4^+

17 of 100
195 PU_2015_308
The subunits of IL-4 receptor are:-

- a) IL-4Rα and γC
- b) IL-4Rα and β
- c) IL-4Rα and IL-13R
- d) both (a) and (c)

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143 PU_2015_308
Genes or proteins that display common activity but not common origin are termed as:-

- Heterologs
- Homologs
- Paralogs
- Analogs

19 of 100
194 PU_2015_308
Segmented RNA is seen in:-

- Coxsackie B virus
- Rabies virus
- Influenza virus
- Rabies Virus

20 of 100
190 PU_2015_308
Heterophile antibodies are found in:-

- Infectious mononucleosis
- Rickettisial Pox
- Epidemic typhus
- Endemic typhus

21 of 100
170 PU_2015_308
The aminotransfereases require which prosthetic group?

- Tetrahydrofolic acid
- NADH
- Pyridoxal phosphate
- Biotin

22 of 100
104 PU_2015_308
Which of the following vaccine types is commonly given with an adjuvant?

- An attenuated vaccine
- A chemically killed vaccine
- An immunoglobulin
- A modified live vaccine

23 of 100
136 PU_2015_308
Virusoid is not a:-

- ribozyme
- satellite nucleic acid
- non coding RNA
- viroid with capsid

24 of 100
156 PU_2015_308
Restriction endonucleases from two different organisms that recognise the same DNA sequence for cleavage are called:-

- Isoschizomers
- Concatamers
- Palindomes
- Isozymes

25 of 100
179 PU_2015_308
Japanese encephalitis is caused by:-

- Arbo Viruses
- Ortho myxo Viruses
- Toga Viruses
- Para myxo Viruses

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164 PU_2015_308

If to 50µl of 0.5M solution A, water is added to get a final volume of 2 ml, what is the final concentration?

- 12.5 mM
- 50 mM
- 25 mM
- 1 mM

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198 PU_2015_308

Which of the following is true about influenza?

- Nucleocapsid is protective
- Large epidemics is due to antigenic drift
- Has double stranded RNA
- Neuraminidase and hemagglutination are specific

28 of 100

177 PU_2015_308

The conformational changes (Loose, Tight and Open) in Nucleotide binding site of F1 complex of ATP synthase occurs due to rotation of _____ subunit of F1 complex.

- δ
- β
- γ
- α

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153 PU_2015_308

Which of the following is a natural inducer of *lac* operon in *E. coli*?

- IPTG
- Allolactose
- Lactose
- Galactose

30 of 100

154 PU_2015_308

Which of the following processes does not take place in the 5´→3´direction?

- Nick translation
- DNA replication
- Transcription
- RNA editing

31 of 100

134 PU_2015_308

Major antigenic change in influenza virus that results probably due to gene reasssortment from different influenza A viruses infecting the same host is called:-

- antigenic shift
- antigenic variation
- antigenic drift
- antigenic modulation

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152 PU_2015_308

A characteristic property of stem cell is:-

- Metastasis
- Self renewal
- Terminal differentiation
- Senescence

33 of 100

139 PU_2015_308

Point mutation in which there is an addition or deletion of a base pair is termed as:-

- Deletion
- Transversion
- Frame shift mutation
- Transition

34 of 100

191 PU_2015_308

The virus which does cause hemagglutination of human erythrocytes is:-

- Reovirus
- Enterovirus
- Rubella
- Myxovirus

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137 PU_2015_308

Match the following:-

Disease	Causative agent
a) Traveler's diarrhea	i) *Bordetella pertussis*
b) Whooping cough	ii) *Escherichia coli*
c) Plague	iii) *Clostridium perfringes*
d) Gas gangrene	iv) *Yersinia pestis*

Codes:-

- (a)-ii, (b)-iii, (c)-iv, (d)-i
- (a)-i, (b)-ii, (c)-iii, (d)-iv
- (a)-ii, (b)-i, (c)-iv, (d)-iii
- (a)-iv, (b)-ii, (c)-iii, (d)-i

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155 PU_2015_308

Ribosomal subunits are assembled in:-

- Nucleus
- Nucleolus
- Endoplasmic reticulum
- Cytoplasm

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181 PU_2015_308

Symptoms of acute aflatoxicosis:-

- a) Osteogenic sarcoma
- b) Lymphatic leukemia
- c) Malaise & Anorexia
- d) Both (a) and (b)

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132 PU_2015_308

The first screening test commonly employed for HIV:-

- immunoperoxidase test
- ELISA
- Immunoflorescence
- complement fixation test

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162 PU_2015_308

Which of the following enzyme plays role in ethanol fermentation?

- Pyruvate carboxylase
- Isocitrate dehydrogenase
- Pyruvate decarboxylase
- Pyruvate dehydrogenase

40 of 100

161 PU_2015_308

Branched heteropolysaccharide contains:-

- An additional protein molecule
- Two or more different monosaccharide units

- More than one monosaccharide units
- More than one glysosidic linkage

41 of 100
150 PU_2015_308
The nucleotide sequence of DNA involved in binding to a transcription factor can be determined by:-

- S1 nuclease
- Northern blotting
- Southern blotting
- DNA footprinting

42 of 100
180 PU_2015_308
Cyst is caused by:-

- Staphylococcus
- Gonococcus
- Streptococcus
- Candida

43 of 100
183 PU_2015_308
Drug resistance to sulphonamides is due to:-

- Folic acid synthetase
- Production of PABA
- Drug alteration
- Low affinity for drug synthesis by bacteria

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159 PU_2015_308
Which of the following amino acids is optically inactive?

- Proline
- Methionine
- Glycine
- Tryptophan

45 of 100
163 PU_2015_308
The carbon skeleton of a fatty acid is 18:1(Δ^9). It means:-

- The fatty acid is unsaturated with 9 C=C bonds
- The fatty acid is unsaturated with 1 C=C bond between C8 and C9
- The fatty acid is unsaturated with 1 C=C bond between C9 and C10
- The fatty acid is saturated

46 of 100
103 PU_2015_308
In an inducible operon, the genes are:-

- always expressed
- usually expressed unless a signal turns them "off"
- never expressed
- usually not expressed unless a signal turns them "on"

47 of 100
131 PU_2015_308
Which of the virus requires a helper virus for replication?

- Hepatitis C virus
- Hepatitis D virus
- Hepatitis E virus
- Hepatitis A virus

48 of 100
175 PU_2015_308
1 Microcurie = _____ Becquerrels.

- 3.7×10^{10}
- 3.7×10^{7}
- 1
- 3.7×10^{4}

49 of 100
193 PU_2015_308
RT-PCR is used in diagnosis of All except:-

- Astrovirus
- Adeonvirus
- Polio virus
- Rotavirus

50 of 100
133 PU_2015_308
Rocky mountain spotted fever is caused by:-

- Chlamydia
- Mycoplasma
- Listeria
- Rickettsia

51 of 100
102 PU_2015_308
When pathogenic bacterial cells lose the ability to make adhesion, they:-

- Increase in virulence
- Produce endotoxin
- Become avirulent
- Absorb endotoxin

52 of 100
158 PU_2015_308
In which stage of the cell cycle, the diploid cell will have twice the amount of DNA as the gamete?
- M phase
- G1 phase
- G2 phase
- S phase

53 of 100
197 PU_2015_308
The most definitive diagnostic method for polio is:-
- Virus isolation from CSF
- Serological diagnosis
- Virus isolation from feces or throat
- Virus isolation from blood

54 of 100
144 PU_2015_308
Live attenuated vaccines are available against the following viruses except:-
- Varicella Zoster virus
- Yellow fever virus
- Influenza virus
- Rubella virus

55 of 100
199 PU_2015_308
Hepatitis B is not transmitted by:-
- Congenital transmission
- Feco-oral route
- Blood transfusion
- Sexual contact

56 of 100
171 PU_2015_308
The form of nitrogen that is most usable in plants is:-
- Nitrite
- Ammonium ions

- Ammonia
- Molecular nitrogen

57 of 100
100 PU_2015_308
A patient contracted athlete's foot after long-term use of a medication. His physician explained that the malady was directly related to the medication. Such infections are termed:-

- Exogenous infection
- Endogenous infection
- Iatrogenic infection
- Nosocomial infection

58 of 100
182 PU_2015_308
Resistant to drugs in tuberculosis develops by:-

- Mutation
- Transduction
- Transformation
- Conjugation

59 of 100
135 PU_2015_308
Trisomic can be represented as:-

- n-1
- 2n+2
- 2n+1
- n

60 of 100
140 PU_2015_308
The enzyme inhibition in which the Vmax stays the same while Km is altered:-

- Uncompetitive
- Non-competitive
- Allosteric
- Competitive

61 of 100
237 PU_2015_308
The membrane lipid molecules assemble spontaneously into bilayers when placed in water and form a closed spherical structure known as:-

- Endosome
- Liposome

- Peroxisome
- Lysosome

62 of 100
234 PU_2015_308
The current genus name of a saccharolytic group of Bacteroides is:-

- Ascomyces
- Sccharomyces
- Porphyromonas
- Pseudomonas

63 of 100
233 PU_2015_308
Pasteurization kills _____ present in milk.

- Only pathogenic bacteria-Controversy answer
- All bacteria
- Multidrug resistant bacteria
- All bacteria and bacterial spores

64 of 100
254 PU_2015_308
Pre-tRNAs are synthesized by:-

- RNA polymerase II
- RNA polymerase I
- aminoacyl tRNA synthetase
- RNA polymerase III

65 of 100
249 PU_2015_308
The scientist who received the Nobel Prize for the discovery of jumping gene is _____.

- James Watson
- Andrew Fire
- Karry Mullis
- Barbara McClintock

66 of 100
251 PU_2015_308
The *lacZ* gene in lac operon codes for _____.

- lactate dehydrogenase
- β-galactosidase
- lactamase
- gelatinase

67 of 100
252 PU_2015_308
Lac operon is an example of:-

- Overlapping operon
- Repressible operon
- Attenuation operon
- Inducible operon

68 of 100
239 PU_2015_308
Pick out the vector using in human Genome project:-

- Cosmid vectors
- Yeast artificial chromosomes
- Yeast episomal plasmids
- Phagemid vector

69 of 100
248 PU_2015_308
Which subunit of the ribosome binds to the 5' cap in eukaryotic mRNA?

- 50s
- 60s
- 30s
- 40s

70 of 100
231 PU_2015_308
Which of the following scientists of Indian origin received Nobel Prize in 2009 for his research on ribosomes?

- V. Ramanujam
- G. N. Ramchandran
- V. Ramakrishanan
- Hargobind Khorana

71 of 100
238 PU_2015_308
The base analog 2-aminopurine pairs with thymine, and can occasionally pairs with cytosine. The type of mutation induced by 2-aminopurine is:-

- Transition
- Nonsense
- Deletion
- Transversion

72 of 100
224 PU_2015_308
Why the bacterium *Treponema pallidum* is difficult to culture?

- Because it lacks the genes needed for glycolysis and oxidative phosphorylation
- Because it lacks the genes needed for TCA cycle and oxidative phosphorylation
- Because it lacks the genes needed for urea cycle and oxidative phosphorylation
- Because it lacks the genes needed for fatty acid oxidation and oxidative phosphorylation

73 of 100
236 PU_2015_308
All of the following processes occur in the mitochondria of mammalian cells EXCEPT:-

- Fatty acid biosynthesis
- DNA synthesis
- The citric acid cycle
- Beta oxidation of fatty acids

74 of 100
232 PU_2015_308
The first synthetic bacterium was generated on the genome of:-

- Bacillus subtilis
- Mycoplasma
- Pseudomonas putida
- E. coli

75 of 100
246 PU_2015_308
Which of the following is a non-composite transposon?

- Tn9
- Tn5
- Tn10
- Tn3

76 of 100
222 PU_2015_308
Which of the following gives information about conformational change in proteins?

- CD/ORD
- Mass spectrometry
- FPLC
- HPLC

77 of 100
253 PU_2015_308
Anticodons are present on:-

- rRNA
- mRNA
- snRNA
- tRNA

78 of 100
223 PU_2015_308
One principal function of complement is to:-

- cross link allergens
- inactivate perforins
- phagocytize antigens
- bind antibodies attached to cell surfaces and to lyse these cells

79 of 100
247 PU_2015_308
The Shine-Dalgarno sequence in prokaryotes recognises the sequence from:-

- 18s rRNA
- 23s rRNA
- 16s rRNA
- 5s rRNA

80 of 100
221 PU_2015_308
To which of the following organelles co-translational transport of proteins takes place?

- Lysosome
- Endoplasmic Reticulum
- Nucleus
- Mitochondria

81 of 100
287 PU_2015_308
Bacillus thuringiensis (Bt) strains have been used to design novel:-

- Bio-insecticidal plants
- Biofertilizers
- Bio-metallurgical techniques
- Bio-mineralization processes

82 of 100
285 PU_2015_308
Flavr Savr tomato is an example of a:-

- genetically modified food
- probiotic food
- fermented food
- pasteurized food

83 of 100
291 PU_2015_308
Which of the following is false about the *E. coli* Lac operon?

- It is an example of negative control
- The presence of lactose acts as an inducer
- It is polycistronic
- The repressor binds to the promoter

84 of 100
263 PU_2015_308
The technique involved in comparing the DNA components of two samples is known as:-

- Recombinant DNA technology
- Polymerase chain reaction
- Genetic finger printing
- Monoclonal antibody techniques

85 of 100
292 PU_2015_308
In protein synthesis termination codons include all except:-

- UAA
- UGA
- UAG
- UGG

86 of 100
261 PU_2015_308
The resolution power of the compound microscope is:-

- 0.2 micron
- 0.2 millimeter
- 0.2 Angstrom units
- 0.2 centimeter

87 of 100
279 PU_2015_308
All of the following are true of antigen EXCEPT which one of the following?

- They contain epitopes
- They contain paratopes
- They can elicit an immune response
- They will react with antibodies

88 of 100
289 PU_2015_308
Repressor molecules bind to the:-

- Promoter
- Operator
- Hormone response element
- Enhancer

89 of 100
271 PU_2015_308
Artificial transformation in laboratory is carried out by treating the cells with:-

- NaCl
- $MgCl_2$
- $Cacl_2$
- HCl

90 of 100
288 PU_2015_308
Fusion of two dissimilar gametes is called:-

- dichogamy
- allogamy
- fertilization
- autogamy

91 of 100
274 PU_2015_308
An enhancer element is:-

- an mRNA-degrading enzyme
- a regulatory protein
- an mRNA transcript
- a specific nucleotide sequence in DNA

92 of 100
273 PU_2015_308
_____ is believed to be a major control point in the regulation of gene expression in eukaryotes.

- mRNA transport
- Regulation of transcription
- Alternative site splicing
- mRNA degradation

93 of 100
277 PU_2015_308
Genus of mold reported to contain species capable of producing aflatoxins:-

- Fusarium
- Brettanomyces
- Aspergillus
- Geotrichum

94 of 100
272 PU_2015_308
Techoic acids are:-

- found in the walls of Gram positive bacteria
- acids which make up the outer wall of Gram negative bacteria
- receptors for phages
- responsible to influence the permeability of the membrane

95 of 100
262 PU_2015_308
Which of the following is an example of RNA virus?

- T4 phage
- Tobacco mosaic virus
- Adeno virus
- SV 40

96 of 100
286 PU_2015_308
An example of gene therapy is:-

- production of injectable hepatitis B vaccine
- production of vaccines in food crops like potatoes which can be eaten
- production of test tube babies by artificial insemination and implantation of fertilized egg
- the introduction of a gene for adenosine de-aminase in persons suffering from Severe Combined Immunodeficiency

97 of 100
264 PU_2015_308
DNA replicates during:-

- G1 – phase
- G2 – phase
- S – phase
- M – phase

98 of 100
278 PU_2015_308
Which of the following refers to the addition of microorganisms to the diet in order to provide health benefits beyond basic nutritive value?

- Antibiotics
- Probiotics
- Adjuvants
- Synbiotics

99 of 100
284 PU_2015_308
Histidine, Leucine, and Methionine are examples of:-

- Moderately essential amino acids
- Essential amino acids
- Very essential amino acids
- Non-essential amino acids

100 of 100
276 PU_2015_308
Tikka disease is a major pathogenic threat in:-

- Wheat
- Apple
- Sorghum
- Groundnut

308 PU M Sc Microbiology

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144 PU_2016_308_E
Syphillis is caused by:-

- Treponema pallidum
- Streptococcus syphilitic
- Yersinia psdtis
- Staphylococcus aureuss

2 of 100
125 PU_2016_308_E
Which of the following diseases is communicable?

- Cancer
- Rickets
- Diabetes
- Amoebiasis

3 of 100
108 PU_2016_308_E
Which of the following is currently considered as the leading cause of extinction?

- Competition from introduced species
- Habitat loss
- Over exploitation of spaces
- Pollution

4 of 100
183 PU_2016_308_E
The virus which does cause hemagglutination of human erythrocytes is:-

- Rubella
- Reovirus
- Enterovirus
- Myxovirus

5 of 100
165 PU_2016_308_E
The class of immunoglobulin present in highest concentration in the blood of a human newborn is:-

- IgA
- IgD
- IgM

- IgG

6 of 100

146 PU_2016_308_E

First genetically engineered and biotechnologically produced vaccine was against:-

- Herpes simplex
- AIDS
- Small pox
- Hepatitis B

7 of 100

122 PU_2016_308_E

'F' plasmids:-

- carry some chromosomal genes
- are those plasmids that have never been incorporated into a bacterial chromosome
- are responsible for high frequency recombination
- Antibiotic resistance

8 of 100

164 PU_2016_308_E

Idiotypic determinants are located within:-

- constant regions of light chains
- the hinge region
- hypervariable regions of heavy and light chains
- constant regions of heavy chains

9 of 100

184 PU_2016_308_E

An example of an artificial virus is:-

- Reovirus
- Mumps virus
- Rabies virus
- Vaccinia virus

10 of 100

210 PU_2016_308_E

A mycorrhizal association is found to occur between:-

- fungi and plant roots
- Mycoplasma and roots
- bacteria and plant roots

- viruses and plant roots

11 of 100
148 PU_2016_308_E
The raw material for citric acid production is:-

- Vinegar
- Corn
- Molasses
- Starch

12 of 100
110 PU_2016_308_E
A linkage map:-

- orders genes on a chromosome based on their location with respect to a stained band
- shows the actual ordering and spacing of genes on a chromosome
- orders genes on a chromosome based on recombination frequencies
- can only be constructed for sex chromosomes

13 of 100
149 PU_2016_308_E
Father of microbiology is:-

- Louis Pasteur
- A.V. Leeuwenhock
- Lister
- Robert Koch

14 of 100
189 PU_2016_308_E
If the position one of the functional group is changed from one carbon to the other in the same molecule by an enzyme, the enzyme is called:-

- Epimerase
- Mutase
- Transferase
- Isomerase

15 of 100
143 PU_2016_308_E
Nitrites are oxidized to nitrates by a microorganism:-

- Nitrobacter
- Azatobacter

- Nitrosomonas
- Nitrosococcus

16 of 100
109 PU_2016_308_E
On molar basis if DNA has 20% cytosine, then % of adenine would be:-

- 40%
- 30%
- 20%
- 60%

17 of 100
126 PU_2016_308_E
TAB vaccine is useful against:-

- Diptheria
- Typhoid
- Pertussis
- Polio

18 of 100
208 PU_2016_308_E
Bacteria differ from Fungi in that the former:-

- are eukaryotic
- contain both DNA and RNA
- contain cell walls
- can reproduce sexually

19 of 100
169 PU_2016_308_E
How many microliters of 20% SDS are required to bring 1.5 mL of solution to 0.5%?

- 3.8 µL
- 385 µL
- 38.5 µL
- 380 µL

20 of 100
162 PU_2016_308_E
The condition in which there is one too many or one too few chromosomes is called:-

- Polyploidy
- Monoploidy

- Polytene
- Aneuploidy

21 of 100
150 PU_2016_308_E
Light gathering capacity of Microscope is called:-

- Numerical aperture
- Angular aperture
- Both of the above
- Objective distance

22 of 100
124 PU_2016_308_E
The maximum biodiversity in India occur at:-

- Eastern Himalayas
- Western Himalayas
- Western Ghats
- North-east Himalayas

23 of 100
206 PU_2016_308_E
Bacteria spores:-

- allow the bacteria to multiple in adverse condition
- can be identified with Gram stains
- are killed by temperature of 120° for 20 minutes
- are usually formed by Gram-negative bacteria

24 of 100
142 PU_2016_308_E
Which of the following is a neutral stain?

- Malachite green
- Picric acid
- Neutral red
- Gmiemsa

25 of 100
141 PU_2016_308_E
The dengue fever virus is:-

- Orthomyxo virus
- Entero virus

- Arbo virus
- Echo virus

26 of 100

105 PU_2016_308_E

Rhizofiltration is used to:-

- Reduce pesticide accumulation
- Reduce contamination of natural wetland
- Reduce mobility of contaminated soil
- Prevent leaching contaminants from the disposal site

27 of 100

207 PU_2016_308_E

The following substances are not used in Gram staining:-

- congo red
- iodine
- alcohol
- crystal violet

28 of 100

104 PU_2016_308_E

Bioaugmemtation involves:-

- Use insects for bioremediation
- Use of genetically modified DNA for bioremediation
- Use of compost for bioremediation
- Use of microbes for bioremediation

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202 PU_2016_308_E

Some bacteria can use CO_2 as the sole carbon source and obtaining energy by oxidation & reduction of inorganic substances. These bacteria are classified as:-

- Photoautotrophs
- Chemolithotrophs
- Photoheterotrophs
- Chemoheterotrophs

30 of 100

185 PU_2016_308_E

A 0.1g % solution is ___ µg/µl.

- 10
- 0.01
- 1.0
- 0.1

31 of 100

188 PU_2016_308_E

Which of the following does *not* participate in the formation of antigen-antibody complexes?

- Van der Waals forces
- Hydrophobic bonds
- Hydrogen bonds
- Covalent bonds

32 of 100

168 PU_2016_308_E

If the genetic code consisted of four bases per codon rather than three, the maximum number of unique amino acids that could be encoded would be:-

- 16
- 256
- 64
- 128

33 of 100

201 PU_2016_308_E

Which of the following is a form of sexual reproduction?

- Hermaphroditism
- Budding
- Regeneration
- Fission

34 of 100

130 PU_2016_308_E

Who provide the evidence that bacteriophage nucleic acid but not protein enters the host cell during infection?

- Hershey & Chase in 1952.
- Hershey & Macleod in 1952
- Hershey & Lederberg in 1951.
- Hershey &Tatum in 1951.

35 of 100

102 PU_2016_308_E
Which is the chief nitrogenous waste in humans?

- Urea
- Ammonia
- Ammonium nitrate
- Uric acid

36 of 100

103 PU_2016_308_E
Hologenome theory states:-

- Host independent evolution
- Host-symbiont co-evolution
- Evolution of bacteria
- Symbiont independent evolution

37 of 100

163 PU_2016_308_E
Hepatitis B is not transmitted by:-

- Blood transfusion
- Sexual contact
- Feco-oral route
- Congenital transmission

38 of 100

204 PU_2016_308_E
Hepatitis B:-

- is a RNA virus
- is a bacterium
- is a DNA virus
- is a viroid

39 of 100

106 PU_2016_308_E
Which of the following is not a vector used in gene therapy?

- HIV
- AAV
- Herpes
- Retro virus

40 of 100

187 PU_2016_308_E
Which of the following enzyme of TCA cycle is also a part of Electron Transport chain?

- Succinate Dehydrogenase
- Pyruvate Dehydrogenase
- Glutamate Dehhydrogenase
- Malate Dehydrogenase

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170 PU_2016_308_E
In which of the following systems is the entropy the greatest?

- Water vapour
- Ice
- Liquid water at pH 7.0, 37°C
- Water with sufficient acid added to lower the pH to 2.0

42 of 100

167 PU_2016_308_E
Hemolytic disease of the newborn caused by Rh blood group incompatibility requires maternal antibody to enter the fetal bloodstream. Therefore, the mediator of this disease is:-

- IgM antibody
- IgE antibody
- IgA antibody
- IgG antibody

43 of 100

186 PU_2016_308_E
To which of the following organelles co-translational transport of proteins takes place?

- Mitochondria
- Endoplasimc Reticulum
- Nucleus
- Lysosome

44 of 100

166 PU_2016_308_E
The main advantage of passive immunization over active immunization is that:-

- antibody persists for a longer period
- it provides antibody more rapidly
- it contains primarily IgM
- it can be administered orally

45 of 100
181 PU_2016_308_E
Hemophilus needs:-

- LPS
- X and V factor
- V factor
- X factor

46 of 100
147 PU_2016_308_E
Penicilin is commercially produced by:-

- P.notatum
- P.citrinum
- P.chrysogenum
- P.roquefortii

47 of 100
203 PU_2016_308_E
To digest cellulose in its environment, a microorganism produces a/an _____.

- Endoenzyme
- Catalase
- Exoenzyme
- Polymerase

48 of 100
145 PU_2016_308_E
Shick test is used for the detection of:-

- Cholera
- Typhoid
- T.B.
- Diphtheria

49 of 100
100 PU_2016_308_E
Mangroves are highly productive eco system but they are poor in bird diversity because:-

- Lack of breeding place
- Lack of food diversity
- More number of predators that feed on birds
- Lack of structural diversity

50 of 100
107 PU_2016_308_E
An Hfr strain of *E. col* contains:-

- A bacterial chromosomes with a human gene inserted
- A vector of yeast or bacterial origin which is used to make many copies of particular DNA sequence
- Human chromosome with a transposable element inserted
- Bacterial chromosomes with a F factor inserted

51 of 100
129 PU_2016_308_E
The mitochondria of eukaryotic cells most likely arose as a result of endosymbiosis between a eukaryotic cell and a:-

- Red algae
- Non- sulphur purple bacterium
- Cyanobacterium
- Blue- green alga

52 of 100
161 PU_2016_308_E
The reaction of soluble antigen with antibody is known as:-

- Flocculation
- Precipitation
- Complement fixation
- Agglutination

53 of 100
121 PU_2016_308_E
RNA viruses are more complex to treat because:-

- Lack of restriction endonucleases
- Lack of ATP-dependent activity of RecA
- Lack of proof reading activity
- Environmental niche

54 of 100
205 PU_2016_308_E
Which of the following is false about *Pseudomonas aeruginosa*?

- It is sensitive to chloramphenicol
- It can cause osteomyelitis
- It is the most common cause of contact lens acquired infection
- It is a Gram negative bacterium

55 of 100
182 PU_2016_308_E
Which of the following is not pathogenic mycobacterium?

- M cheoleni
- M scrofulaceum
- M kansasii
- M smegmatis

56 of 100
128 PU_2016_308_E
A taxon is:-

- Herbal taxonomist
- A group of related families
- New taxonomist
- Modern taxonomist

57 of 100
123 PU_2016_308_E
A microbiologist analysed the DNA of *E. coli* before and after conjugation. She found that:-

- Both cells gained genes but lost none of their original genes
- One cell lost genes and the other gained genes
- Both cells lost some genes and gained others
- One cell gain genes and the genes of the other were unchanged

58 of 100
101 PU_2016_308_E
"Inclusive fitness" theory was originally put forward by:-

- Hamilton
- Darwin
- JBS Haldane
- RA Fisher

59 of 100
127 PU_2016_308_E
Taeniasis by *Taeniasaginata* is caused by consumption of:-

- Wild boars
- Beef
- Pork
- Salmon

60 of 100
209 PU_2016_308_E
Stains useful for identifying fungus include:-

- Gram stain
- Giemsa
- Methylene blue
- Cotton blue

61 of 100
243 PU_2016_308_M
Nitrogen is required by microorganisms for the production of which type of compounds?

- Phospholipids
- Cellulose
- Nucleotides
- Fatty acids

62 of 100
229 PU_2016_308_M
One principal function of complement is to:-

- cross link allergens
- bind antibodies attached to cell surfaces and to lyse these cells
- inactivate perforins
- phagocytize antigens

63 of 100
227 PU_2016_308_M
A culture of an E.coli strain that is lysogenic for phage lambda is grown at 32°C. Induction of the prophage from the host chromosome will occur when the culture is exposed to:-

- Wild type E.coli culture
- 40°C
- Infra-red radiation
- Ultra-violet radiation

64 of 100
223 PU_2016_308_M
The nature of bacterial capsules:-

- Causes widespread blood clotting
- Has no effect on the virulence of the bacteria
- Allows phagocytes to readily engulf these bacteria

- Affects the virulence of these bacteria

65 of 100

247 PU_2016_308_M

The experiments using *Diplococcus* to study bacterial transformation were performed by:-

- Joshua Lederberg
- Beadle and Tatum
- Griffith
- Iwanowsky

66 of 100

224 PU_2016_308_M

Bacterial cell wall is made-up of:-

- A. N-Acetyl glucosamine
- B. N-Acetyl muramic acid
- C. N-Acetyl glucosamine, N-Acetyl muramic acid and amino acids
- D. Both A and B

67 of 100

244 PU_2016_308_M

What is not a role of hydrogen within cells?

- It is a major element in all organic compounds
- It determines the shape and stability of proteins by forming disulfide bonds.
- It maintains pH within the cell.
- It forms hydrogen bonds between molecules.

68 of 100

242 PU_2016_308_M

Fungi are identified by which of the following characteristics?

- rRNA sequences
- Biochemical analysis
- Serological analysis
- Asexual spore forming structures and spores

69 of 100

228 PU_2016_308_M

What is "ALZHEIMER'S" disease?

- It is a disorder of the brain
- It affects liver
- It affects human immune system

- It affects Kidney

70 of 100

230 PU_2016_308_M

Is not an AB type toxin:-

- shiga toxin
- S.aureus α toxin
- cholera toxin
- botulinum toxin

71 of 100

245 PU_2016_308_M

What nutritional category of microorganisms plays an important part in recycling inorganic nutrients?

- Chemoheterotrophs
- Chemoautotrophs
- Photoautotrophs
- Saprobes

72 of 100

225 PU_2016_308_M

Which of the following bacteria cannot fix atmospheric nitrogen non-symbiotically?

- Rhizobium
- Klebsiella
- Azotobacter
- Pseudomonas

73 of 100

221 PU_2016_308_M

In a flowering plants megaspore undergoes mitosis and develops into a:-

- Anther
- Seed
- Embryo sac
- Petal

74 of 100

220 PU_2016_308_M

Which is the only colourless animal parasite among dinoflagellates?

- Notiluca
- Blastodium
- Gonyaulux

- Ceraium

75 of 100

222 PU_2016_308_M

When pathogenic bacterial cells lose the ability to make adhesion, they:-

- Absorb endotoxin
- Increase in virulence
- Produce endotoxin
- Become avirulent

76 of 100

241 PU_2016_308_M

Why are encapsulated bacteria generally more pathogenic than non-encapsulated strains?

- Because the capsule helps prevent phagocyte attachment to the organism
- Because the capsule stimulates a potent immune response in the host
- Because phagocytes do not recognize a capsule as foreign
- Because the capsule causes the phagocyte to mutate

77 of 100

226 PU_2016_308_M

Which of the following coenzymes act as an "electronic sink"?

- TPP
- FAD
- NAD^+
- PLP

78 of 100

246 PU_2016_308_M

What form of Oxygen is not toxic to microorganisms?

- O_2
- $^1O_2$
- OH^-
- O_2^-

79 of 100

248 PU_2016_308_M

A disease that can be transmitted by an infectious agent from one individual to another is called:-

- Coma
- Epidemic
- Pandemic

- Communicable

80 of 100

249 PU_2016_308_M

The proteinaceous compounds are converted to ammonia by:-

- Ammonification bacteria
- Denitrification bacteria
- Nitrification bacteria
- Putrifying bacteria

81 of 100

296 PU_2016_308_D

Among the following which would lead into new species formation?

- Niche specialization
- Increased resources
- Niche overlapping tolerance
- Lack of competition

82 of 100

294 PU_2016_308_D

Choose the correct sequence of evolutionary events in one form of allopatric speciation, using the codes given below:-

I. Geographical isolation
II. Ecological isolation
III. Increased pre- mating reproductive isolation
IV. Increased genetic divergence
V. Selection completed.

Codes

- III II IV V
- III IV II V
- I IV III V
- I II III V

83 of 100

295 PU_2016_308_D

Plants die in winter by frost because:-

- Of desiccation and mechanical damage to tissues
- No photosynthesis takes place at such low temperatures
- There is no transpiration
- Respiration ceases at such low temperatures

84 of 100
276 PU_2016_308_D
Whose invention permitted microbiologists to visually identify microbes?

- Louis Pasteur
- John Snow
- John Tyndall
- Anton van Leeuwenhoek

85 of 100
291 PU_2016_308_D
Member of the same species which are capable of interbreeding is best describe as:-

- Eco system
- Biosphere
- Community
- Population

86 of 100
273 PU_2016_308_D
A strong reducing agent readily _____ electron and undergoes _____.

- Accepts, oxidation
- Accepts, reduction
- Donates, oxidation
- Donates, reduction

87 of 100
299 PU_2016_308_D
Consider the following statement.

I. Reciprocal altruism health or sacrifice repaid later
II. Kin selection present when self-sacrifice relatives lead to altruism
III. Courtship ritual minimizes agonistic behaviour before mating
IV. Cognition is the ability to store, process and use sensory information

Which of the above statement are correct regarding animal behaviour?

Codes

- II, III, and IV
- I, II, and III
- I, II, III, and IV
- I, III, and IV

88 of 100
278 PU_2016_308_D

Acellular, non-living agents consisting of a protein coat that surrounds a nucleic acid core are called:-

- Viruses
- Bacteria
- Viroids
- Amoebae

89 of 100

275 PU_2016_308_D

All of the following are true with regard to fungi EXCEPT:-

- Yeasts, moulds and mushrooms are examples of fungi
- They are eukaryotes
- Some are single-celled and others are multicellular
- Most are photosynthetic and derive their energy from sunlight

90 of 100

298 PU_2016_308_D

Altruistic behaviour is not seen in:-

- Termite
- Silk Worm
- Ant
- Bee

91 of 100

292 PU_2016_308_D

Which of the following would cause deviation from the Hardy - Weinberg equilibrium?

- Lack of selection pressure
- Small population
- Random mating
- Isolation

92 of 100

271 PU_2016_308_D

In ion exchange chromatography with anion exchanger, the protein with negative charge:-

- will be eluted only after applying gradient elution
- will be eluted first
- will be eluted in washing step
- will not bind to the ion exchange resin

93 of 100

293 PU_2016_308_D

If 16% of the persons in a population show a recessive trait, what is the allelic frequency for the dominant allele?

- 16%
- 84%
- 96%
- 4%

94 of 100

277 PU_2016_308_D

Proteinacious agents that cause a number of neurodegenerative diseases such as Creutzfeld-Jacob disease and Mad Cow disease are called:-

- Viroids
- Virusoids
- Bacteria
- Prions

95 of 100

270 PU_2016_308_D

The advantage of the Edman's reagent (phenyl isothiocyanate-PTH) over Sanger's reagent (fluorodinotrobenzene-FDNB) in peptide analysis is:-

- that the process can be repeated on the remaining peptide
- complete denaturation
- complete hydrolysis
- complete oxidation of all disulfides

96 of 100

279 PU_2016_308_D

Which of these is not a living fossil?

- Archaeopteryx
- Lung fish
- Duck-billed platypus
- Frog

97 of 100

280 PU_2016_308_D

If your microscope has a 10X ocular lens and you are using the 100X objective lens, what is the total magnification?

- 1000
- 1100
- 10

- 100

98 of 100

274 PU_2016_308_D

The pH of blood of a healthy person is maintained at 7.40 ± 0.05. Assuming that this pH is maintained entirely by the bicarbonate buffer (pKa1 and pKa2 of carbonic acid are 6.1 and 10.3 respectively), the molar ratio of [bicarbonate] / [carbonic acid] in the blood is:-

- 10
- 1
- 20
- 0.05

99 of 100

272 PU_2016_308_D

Mutations often occur as a result of base substitutions. The most common cause of base substitutions is:-

- Meiotic errors
- Tautomeric shifts
- Base insertions
- Base deletions

100 of 100

297 PU_2016_308_D

"Acetylsalicylic Acid" is commonly known as:-

- Salsalate
- Aspirin
- Wintergreen
- Paracetamol

Sr No.	MSc Microbiology
1	Find the missing term in the following series: 3,15,?,63,99,143…?
Alt1	27
Alt2	35
Alt3	45
Alt4	56

2	Choose word from the given options which bears the same relationship to the third word, as the first two bears: Horse : Jockey :: Car : ?
Alt1	Mechanic
Alt2	Chauffeur
Alt3	Steering
Alt4	Brake

3	Food is to Fad as Religion is to……?.....
Alt1	Crucification
Alt2	Notion
Alt3	Superstition
Alt4	Mythology

4	Select the lettered pair that has the same relationship as the original pair of words: Fond: Doting
Alt1	Solicitous: Concern
Alt2	Verbose: Wordiness
Alt3	Flurry: Blizzard
Alt4	Magnificent: Grandiose

5	Which of the following is the same as Emancipate, Free, Release?
Alt1	Liberate
Alt2	Quit
Alt3	Pardon
Alt4	Ignore

6	Spot the defective segment from the following:
Alt1	I met one of the mountaineers
Alt2	that have returned
Alt3	to their base camp
Alt4	the last week

7	Choose the meaning of the idiom/phrase from among the options given: To call names
Alt1	to abuse
Alt2	to recall something
Alt3	to count the prisoners
Alt4	to take attendance

8	Our tour programme fell ------ because of inclement weather.
Alt1	through
Alt2	off
Alt3	out
Alt4	down

9	Choose the option closest in meaning to the given word: POIGNANT
Alt1	unbearable
Alt2	maximal
Alt3	pathetic
Alt4	sharp

10	Choose the antonymous option you consider the best: WANTON
Alt1	rational
Alt2	abstemious
Alt3	dearth
Alt4	deliberate

11	Six people K, L, M, N, O and P are sitting around a table as per the following conditions. i. N and O are opposite each other ii. K is to the right of M iii. L and K are opposite each other iv. N is to the left of P Who is to the left of L ?
Alt1	P
Alt2	M
Alt3	N
Alt4	O

12	Study the following table carefully to answer the questions that follow (15 to 17) :Total number of employees in different departments in an organisation and (of these) percentage of females and males Department Total number of employees Percentage of female employees Percentage of male employees IT 840 45 55 Accounts 220 35 65 Production 900 23 77 HR 360 65 35 Marketing 450 44 56 Customer Service 540 40 60 What is the total number of male employees in the IT and Customer Service departments put together?
Alt1	115
Alt2	786

Alt3	768
Alt4	85

13	Study the following table carefully to answer the questions that follow (15 to 17) :Total number of employees in different departments in an organisation and (of these) percentage of females and males Department Total number of employees Percentage of female employees Percentage of male employees IT 840 45 55 Accounts 220 35 65 Production 900 23 77 HR 360 65 35 Marketing 450 44 56 Customer Service 540 40 60 What is the total number of employees in all departments put together ?
Alt1	3260
Alt2	3310
Alt3	3140
Alt4	3020

14	Select the alternative that logically follows from the two given statements, but not from one statement alone: All Cats are dogs No dogs are rats
Alt1	All cats are rats
Alt2	Some cats are rats
Alt3	No cat is rat
Alt4	None of the above

15	In a certain code language, " When did you come" is written as 'ti na ki ja'. "Will you come again" is written as 'na pa sa ja' and "She will go" is written as 'pa da ra'. How is "again" written in that code language ?
Alt1	Na
Alt2	sa
Alt3	ja
Alt4	da

16	In each of the following questions some statements are followed by two conclusions (i) and (ii). Read the statements carefully and then decide which of the conclsions follow beyond a reasonable doubt. Mark your answer as Statement: The aspirants should apply through a proper channel for permission Conclusions: (i) Those who apply through proper channel will get permission (ii) Those who do not apply through proper channel will not get permission
Alt1	If only conclusion (i) follows

Alt2	If only conclusion (ii) follows
Alt3	If neither conclusion (i) nor (ii) follows
Alt4	If both the conclusions follow

17	The average height of 3 children is 115 cms. If the heights of 2 children are 117 cms. And 112 cms. Respectively, the height of the third child is
Alt1	112 cms.
Alt2	113 cms.
Alt3	115 cms.
Alt4	116 cms.

18	What is the 30% of 40% of 2/5th of 5000?
Alt1	500
Alt2	800
Alt3	240
Alt4	720

19	There are n persons in a room. Each one is shaking hand with the other . Ultimately there are 66 hand-shakes. Then n=
Alt1	11
Alt2	12
Alt3	16
Alt4	33

20	A problem is given to students 10 students choose option A ; 6 students choose option B ; 2 students choose option C; Gopal choose option D; 5 students did not answer. which option is correct if the teacher tells that One-Twelth of the class gave the correct answer.
Alt1	B
Alt2	A
Alt3	C
Alt4	D

21	TAB vaccination is a:-
Alt1	Neonatal Immunization
Alt2	Combined Immunization
Alt3	Passive immunization
Alt4	Active Immunization

22	Hetrolactic acid bacteria produce:-
Alt1	Lactic acid only
Alt2	Lactic acid + H_2O + CO_2
Alt3	Lactic acid + CO_2
Alt4	Lactic acid + alchohol + CO_2

23	Which of the following refers to the addition of microorganisms to the diet in order to provide health benefits beyond basic nutritive value?
Alt1	Adjuvants
Alt2	Antibiotics
Alt3	Probiotics
Alt4	Prebiotics

24	In the technique of FRET, for the energy transfer which of the following condition needs to be satisfied?
Alt1	Absorption spectrum of the acceptor must overlap with the emission spectrum of the donor
Alt2	The energy donor must not be fluorescent
Alt3	Absorption spectrum of the acceptor must not overlap with the emission spectrum of the donor
Alt4	Activation energy is higher than free energy

25	Milk fever in cow is caused due to the deficiency of:-
Alt1	Nitrogen
Alt2	Phosphorus
Alt3	Calcium
Alt4	Sodium

26	Almost 95% of compounds are of carbon because it can form:-
Alt1	Double bonds
Alt2	Triple bonds
Alt3	Multiple bonds
Alt4	Single bonds

27	An open reading frame is one that has:-
Alt1	No start and stop codon
Alt2	A start & stop codon
Alt3	No start but stop codon
Alt4	A start but no stop codon

28	Streptokinase is also termed as:-
Alt1	Hyaluronidase
Alt2	Fibrionolysin
Alt3	Catalase
Alt4	Coagulase

29	In a diploid organism, what is the maximum number of alleles that can exist in a population for any given gene?
Alt1	2
Alt2	1
Alt3	4
Alt4	Unlimited

30	In a Sephadex gel filtration column, a mixture of albumin, lysozyme and thymidinewas loaded. In what sequence these will be eluted from the column:-
Alt1	Albumin > Lysozyme > Thymidine
Alt2	Thymidine > Lysozyme > Albumin
Alt3	Lysozyme > Thymidine > Albumin
Alt4	Thymidine > Albumin > Lysozyme

31	The ions generated in mass spectrometry technique are separated according:-
Alt1	Mass
Alt2	Charge
Alt3	Shape of the molecule
Alt4	Mass: charge ratio

32	A minimal medium contains 0.00015% CaCl2. To prepare 250 ml of the medium _____ should be taken from a solution of 1.5mg/ml CaCl2.
Alt1	0.25 ml
Alt2	0.025 ml
Alt3	25 ml
Alt4	2.5 ml

33	Mountax reaction is used for detection of:-
Alt1	T. B.
Alt2	HIV
Alt3	Diphtheria
Alt4	Cholera

34	Which of the following is the most immunogenic in typhoid?
Alt1	O antigen
Alt2	Vi antigen
Alt3	Somatic antigen
Alt4	H antigen

35	Which one the following denotes production phase in fermentation:-
Alt1	Lag phase
Alt2	Trophophase
Alt3	Decline phase
Alt4	Indiophase

36	Which of the following is a micronutrient?
Alt1	Hydrogen
Alt2	Silica
Alt3	Carbon
Alt4	Oxygen

37	Malaria is caused by the infection of:-
Alt1	Virus
Alt2	Bacterium

Alt3	Protozoan
Alt4	Fungus

38	A delayed hypersensitivity reaction is characterized by:-
Alt1	an infiltrate composed of neutrophils
Alt2	an infiltrate composed of helper T cells and macrophages
Alt3	an infiltrate composed of eosinophils
Alt4	edema without a cellular infiltrate

39	Pili, elongated tubular structures composed of pilin, are only found on what type of organisms
Alt1	Spirochetes
Alt2	Gram-negatives
Alt3	Gram-positives
Alt4	Encapsulated organisms

40	Elek's gel diffusion test is used for the detection of:-
Alt1	Toxoid
Alt2	Cholera toxin
Alt3	Diphtheria toxin
Alt4	Tetani toxin

41	Which Immunoglobulin can cross the placenta?
Alt1	IgE
Alt2	IgG
Alt3	IgD
Alt4	IgA

42	The following are used for the preservation of virus, except:-
Alt1	Ether
Alt2	Formaldehyde
Alt3	Lyophilization
Alt4	Freezing (-20°C-70°C)

43	Transposons:-
Alt1	Can insert into plasmids but not the bacterial chromosome
Alt2	Insert into DNA by homologous recombination
Alt3	Contain the equivalent of insertion (IS) element
Alt4	Cannot be transferred by phage mediated transduction

44	Where do you dispose the radioisotope solid waste material?
Alt1	General trash
Alt2	Any available trash
Alt3	Oceans
Alt4	Trash specifically assigned for isotope

45	The acrosome of the sperm is formed from the:-
Alt1	Mitochondria

Alt2	Lysosome
Alt3	Golgi bodies
Alt4	Centrosome

46	When a solution containing ds DNA is heated above its Tm, the change observed in uv-visible spectra before and after treatment is called _____.
Alt1	Achromic shift
Alt2	Hyperchromic shift
Alt3	Bathochromic shift
Alt4	Hypsochromic shift

47	The test used for detection of typhoid fever:-
Alt1	WIDAL test
Alt2	Western blotting
Alt3	ELISA
Alt4	Rosewaller test

48	The minor histocompatibility antigens on cells:-
Alt1	are controlled by several genes in the major histocompatibility complex
Alt2	induce reactions that can cumulatively lead to a strong rejection response
Alt3	are unimportant in human transplantation
Alt4	are detected by reaction with antibodies and complement

49	Hypersensitivity to penicillin and hypersensitivity to poison oak are both:-
Alt1	initiated by Th-2 cells
Alt2	mediated by IgE antibody
Alt3	initiated by haptens
Alt4	mediated by IgG and IgM antibody

50	During Mitosis suddenly the chromosomes starts moving toward the opposite polesduring:-
Alt1	Anaphase
Alt2	Prophase
Alt3	Metaphase
Alt4	Telophase

51	The order of stains in Gram-staining procedure is:-
Alt1	Iodine solution, Crystal Violet, Saffranine, Alcohol
Alt2	Alcohol, Iodine solution, Saffranine, Crystal Violet
Alt3	Alcohol, Crystal Violet, Iodine solution,Saffranine
Alt4	Crystal violet, Iodine solution, Alcohol, Saffranine

52	Citrus canker is caused by:-
Alt1	Phytomonas
Alt2	Hay bacillus
Alt3	Lactobacillus
Alt4	Salmonella

53	Which of the following is not associated with cell cycle?
Alt1	Myosins
Alt2	CDK
Alt3	DNA polymerases
Alt4	Cyclins

54	The pH of a solution is 3.75. What is the concentration of hydrogen ion in the solution?
Alt1	1.8 X 10 -4 M
Alt2	1.8 X 10 -3 M
Alt3	1.8 X 10 -2 M
Alt4	18 X 10 -4 M

55	E. coli O157: H7 is thought to have acquired enterohaemorrhagic genes from:-
Alt1	Shigella
Alt2	Clostridium
Alt3	Campylobacter
Alt4	Bacillus

56	Which one of the following substances is NOT released by activated helper T cells?
Alt1	gamma interferon
Alt2	interleukin-2
Alt3	interleukin-4
Alt4	interleukin-1

57	E-test is employed for testing of _____.
Alt1	Probiotics
Alt2	Antigen
Alt3	Antibiotics
Alt4	Antibody

58	Halophiles can survive in:-
Alt1	high-temperature environment
Alt2	salt-rich environment
Alt3	acidic environment
Alt4	Freshwate

59	Proteins show maximum absorbance at 280 nm due to the presence of:-
Alt1	Sulphur containing amino acids
Alt2	Hydroxyl group containing amino acids
Alt3	Aromatic amino acids
Alt4	Charged amino acids

60	Kuru disease in Humans is caused by:-
Alt1	Mycoplasma
Alt2	Bacteria
Alt3	Viroides
Alt4	Prions

61	Sites where mutations occur at rates higher than normal are known as:-
Alt1	Hotspots
Alt2	Mutator sites
Alt3	Suppressor sites
Alt4	Cistrons

62	Agar is obtained form:-
Alt1	Blue-green algae
Alt2	Green algae
Alt3	Red algae
Alt4	Brown algae

63	The acid fast stain is used to identify organisms containing what chemical in their cell walls?
Alt1	Mycolic acid
Alt2	Lipoteichoic acids
Alt3	Liposaccharides
Alt4	Porin proteins

64	Which of the following is an example of a monosaccharide?
Alt1	Cellulose
Alt2	Chitin
Alt3	Glucose
Alt4	Starch

65	Special feature of Retro viruses include:-
Alt1	RNA directed DNA polymerases
Alt2	Reverse transcriptase
Alt3	Both of the above
Alt4	Boils

66	What type of bond best describes the linkage between Acyl Carrier Protein (ACP) and fatty acids in fatty acid biosynthesis?
Alt1	Amide
Alt2	Ester
Alt3	Phosphoanhydride
Alt4	Thioester

67	Rancidity in spoiled foods is due to:-
Alt1	Toxigenic microbes
Alt2	Lipolytic organisms
Alt3	Proteolytic organisms
Alt4	Saccharolyticmicrobes

68	A technician wanted to make antibody specific for mouse IgM. Accordingly he injecteda rabbit with purified mouse IgM and obtained an antiserum that reacted stronglywith mouse IgG. Unfortunately, however antiserum was also found to react withother mouse Ig classes. Such result would be obtained if antiserum contained antibodiesdirected against:-
Alt1	The constant region of heavy chain
Alt2	The light chain of Ig molecule
Alt3	The Fc portion of Ig molecule
Alt4	The variable region of heavy chain

69	Which is the reservoir of Neisseria meningitides?
Alt1	Domesticated animals
Alt2	Human carriers
Alt3	Soil
Alt4	Salt water

70	Mycorrhiza was first observed by:-
Alt1	Frank
Alt2	Crick
Alt3	Fisher
Alt4	Funk

71	Which of has following group of gases contribute to the 'Green House Effect'?
Alt1	Carbon tetrafluoride and Nitrous oxide
Alt2	Carbon dioxide and Methane
Alt3	Ammonia and Ozone
Alt4	Carbon monoxide and Sulphur dioxide

72	Autoclaving uses _____ to sterilise
Alt1	air mixed with steam
Alt2	short periods of temperature
Alt3	chemicals
Alt4	steam and pressure

73	DPT vaccine will not be able to protect the person from the infection of:-
Alt1	Corynebacteriumdiphtheriae
Alt2	Bordetella pertussis
Alt3	Salmonella typhi
Alt4	Clostridium tetani

74	Late blight potato is caused by genera:-
Alt1	Verticillium
Alt2	Phytopthora
Alt3	Synchytrium
Alt4	Alternaria

75	RFLP (Restriction Fragment Length Polymorphism) study is a technique for:-
Alt1	Transferring genes from unrelated species

Alt2	Identifying genetic (DNA) homologies
Alt3	Isolating single gene products
Alt4	Isolating single genes

76	RFLP (Restriction Fragment Length Polymorphism) study is a technique for:-
Alt1	Transferring genes from unrelated species
Alt2	Identifying genetic (DNA) homologies
Alt3	Isolating single gene products
Alt4	Isolating single genes

77	SDS PAGE separates proteins by:-
Alt1	size only
Alt2	native charge only
Alt3	size and native charge
Alt4	Zwitter ions

78	Gasgangarene bacillus is:-
Alt1	Obligate anaerobe
Alt2	Obligate aerobe
Alt3	Facultative anaerobe
Alt4	Facultative aerobe

79	Which animals may suffer from foot and mouth disease?
Alt1	Cattle
Alt2	Cattle and Sheep
Alt3	Cattle and Pigs
Alt4	Cattle, Sheep and pigs

80	Moist heat sterilizes by:-
Alt1	denaturation of proteins
Alt2	causing production of singlet oxygen
Alt3	use of chemicals
Alt4	causing the formation of thymine dimers

81	What is the key test that separates Staphylococcus aureus from other staphylococci?
Alt1	Growth on blood agar medium
Alt2	Mannose fermentation
Alt3	Coagulase test
Alt4	Susceptibility to novobiocin

82	G-protein linked receptors are transmembrane proteins of:-
Alt1	Seven-pass
Alt2	Single- pass
Alt3	Three-pass
Alt4	Five-pass

83	Fungal filaments are generally referred to as:-

Alt1	Budding
Alt2	Conidium
Alt3	Spore
Alt4	Hyphae

84	Mosquito is not a vector for:-
Alt1	Yellow fever
Alt2	Elephantiasis
Alt3	Dengue
Alt4	Typhoid

85	By definition, an endophytic fungus lives in _____ form in biological association with the living plant.
Alt1	megasporangium
Alt2	spore
Alt3	anther
Alt4	mycelial

86	Who discovered the Polio vaccine?
Alt1	Jonas Salk
Alt2	Eli Whitney
Alt3	Louis Pasteur
Alt4	Konrad Zuse

87	Which of the following inhibits bacterial growth but does not kill bacteria?
Alt1	Lysozyme
Alt2	bactericidal agent
Alt3	antiseptic agent
Alt4	bacteriostatic agent

88	What compounds do necrotrophs generally produce in order to gain entry into the host organism while obtaining their nutrition?
Alt1	Toxins
Alt2	Sclerotia
Alt3	Conidiophore
Alt4	Stroma

89	The type of filter used in the Laminar air flow biological cabinet is:-
Alt1	High Efficiency Physical Air filter
Alt2	High Efficiency Primary Air filter
Alt3	High Efficiency Physiological Air filter
Alt4	High Efficiency Particulate Air filter

90	Which technique can be used for detection of radioactivity?
Alt1	Immuno-precipitation
Alt2	liquid scintillation counting
Alt3	Avidin-streptavidin conjugate

Alt4	Biophotometry

91	All of the following are true about antibodies, EXCEPT which one?
Alt1	They fix complement
Alt2	They occur on the surface of B-lymphocyte
Alt3	They are molecule with a single, defined amino acid sequence
Alt4	They are glycoproteins

92	Tumer inducing plasmids are extensively used in production of:-
Alt1	Single cell proteins
Alt2	Avirulent phases
Alt3	Nitrogen fixing bacteria
Alt4	Transgenic plants

93	TH-2 response is generated and maintained by which of the following pair of cytokines?
Alt1	IL-2 and IL-12
Alt2	IL-4 and IL10
Alt3	IFN -γ and TNF-α
Alt4	IL-12 and IFN -γ

94	How many chromosomes do bacteria have?
Alt1	Zero
Alt2	Two
Alt3	Three
Alt4	One

95	Which is most antigenic?
Alt1	Exotoxins
Alt2	Bacteria
Alt3	Endotoxins
Alt4	Viruses

96	Which of the following specially design nuclease is used for knocking out specific genes?
Alt1	I-CreI Homing endonuclease
Alt2	S1 Nuclease
Alt3	Ribonuclease H
Alt4	Flap endonuclease

97	The potential risk of using genetic engineering were first discussed in depth at the:-
Alt1	Asilomar conference 1975
Alt2	Berlin conference 1977
Alt3	Athens conference 1976
Alt4	New York conference 1974

98	The gene for Green Fluorescent Protein (GFP), a commonly used reporter gene, was cloned from:-
Alt1	Vibrio cholera
Alt2	Equoreavictoria

Alt3	Sus dometicus
Alt4	Danio rerio

99	If more than one kind of immunizing agent is included in the vaccine, it is:-
Alt1	Toxoid vaccine
Alt2	Mixed vaccine
Alt3	Cellular vaccine
Alt4	Recombinant vaccine

100	How much of globulin is present in human serum?
Alt1	0.08
Alt2	0.16
Alt3	0.04
Alt4	0.12

Examination: **M.Sc. Microbiology**

Section 1 - Section 1

Question No.1 4.00

Bookmark

Who discovered Vibrio cholera

- Koch
- Pasteur
- Virchow
- Mechnikov

Question No.2 4.00

Bookmark

Cyclosporine is an immunosuppressive drug given to avoid transplant rejection which acts by

- Inhibition of T cells
- Inhibition of immune system
- Inhibition of B cells
- Inhibition of Complement system

Question No.3 4.00

Bookmark

Same DNA sequence may code for more than one protein by

- RNA splitting
- Alternative Splicing of RNA
- Gene splitting
- Gene splicing

Question No.4 4.00

Bookmark

Long term effects of strep throat can include

- Rheumatic fever
- Encephalitis
- Death
- Glomerulonephritis

Question No.5 4.00

Bookmark

Statements: All tools are books, Some books are pens.
Conclusion:
I. Some tools are pen
II. Some pens are books

- If only conclusion I follows
- If either I or II follows
- If only conclusion II follows
- If neither I nor II follows

Question No.6 4.00

Bookmark

Chromatography is a physical method that is used to separate and analyse _____

- Simple mixtures
- Metals
- Viscous mixtures
- Complex mixtures

Question No.7 4.00

Bookmark ☐

Which is the Ig that first reached the site of infection

- IgE
- IgA
- IgM
- IgG

Question No.8 4.00

Bookmark ☐

The major chemical messenger involved in hypersensitivity is

- Interleukines
- Histamines
- Lymphokines
- Interferons

Question No.9 4.00

Bookmark ☐

Which of the following is useful to stimulate antibody production

- Purified Antigen
- An adjuvant
- A hapten
- Antiserum

Question No.10 4.00

Bookmark ☑

Who developed smallpox vaccine for the first time

- Tautum
- Pasteur
- Jenner
- Koch

Question No.11 4.00

Bookmark ☐

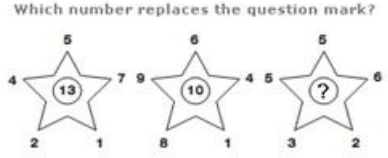
Rancidity in spoiled foods is due to

- Saccharolyticmicrobes
- Lipolytic organisms
- Toxigenic microbes
- Proteolytic organisms

Question No.12 4.00

Bookmark ☐

Which number replaces the question mark?



- 11
- 9
- 10
- 12

Question No.13 4.00

Bookmark

G- protein linked receptors are transmembrane proteins of:-

- Seven
- Single
- Five
- Three

Question No.14 4.00

Bookmark

Which of the following types of chromatography involves the separation of substances in a mixture over a 0.2 mm thick layer of an adsorbent?

- Gas liquid
- Thin layer
- Paper
- Column

Question No.15 4.00

Bookmark

Tumer inducing plasmids are extensively used in production of:-

- Avirulent phases
- Transgenic plants
- Single cell proteins
- Nitrogen fixing bacteria

Question No.16 4.00

Bookmark

First DNA glycosylase enzyme discovered is

- Methyl Adenine Glycosylase
- Thymine DNA glycosylase
- Uracil DNA glycosylase
- Adenine DNA glycosylase

Question No.17 4.00

Bookmark

The transfer of plasmid from one bacteria to a different strain is a best example for

- Homozygous gene transfer
- Horizontal gene transfer
- Vertical gene transfer
- Heterozygous gene transfer

Question No.18 4.00

Bookmark

The branch of science concerned with classification, especially of organisms

- Taxonomy
- Mycology
- Ecology
- Biology

Question No.19 4.00

Bookmark ☐

SDS PAGE separates proteins by:

- size and native charge
- Zwitter ions
- native charge only
- size only

Question No.20 4.00

Bookmark ☐

The phase which the cells will need time to synthesise the necessary enzymes for its metabolism

- Death phase
- Stationary phase
- Lag phase
- Log phase

Question No.21 4.00

Bookmark ☐

The tracking dye used in SDS PAGE will be

- Anionic
- Cationic
- Non-ionic
- Amphipathic

Question No.22 4.00

Bookmark ☐

The name Protozoa comes from the Greek, meaning

- First -animal
- Fungi
- Algae
- Second-animal

Question No.23 4.00

Bookmark ☐

Which antibody is found in tears

- IgG
- IgA
- IgM
- IgD

Question No.24 4.00

Bookmark ☐

Reproduction in bacteria is carried out by

- Sexual reproduction
- Conjugation
- Binary fission
- Budding

Question No.25 4.00

Bookmark

DNA helicase enzyme involved in base excision repair mechanism is

- DNA helicase I
- DNA helicase II
- DNA helicase IV
- DNA helicase III

Question No.26 4.00

Bookmark

Which of the following bacteria has the lowest 50% infective dose (ID50)

- *Campylobacter jejuni*
- *Vibrio cholerae*
- *Shigella Sonnei*
- *Salmonella typhi*

Question No.27 4.00

Bookmark

The Plasmid used by Cohen and Boyer for their transformation experiment was

- E. coli plasmids
- pBR 322
- pSC 101
- PUC 17

Question No.28 4.00

Bookmark

When is electrophoresis not used?

- Separation of proteins
- Separation of nucleic acids
- Separation of amino acids
- Separation of Lipids

Question No.29 4.00

Bookmark

Spectroscopy deals with interaction of electromagnetic radiation with matter. What is the speed of this radiation in vacuum in m/s?

- 5×10^8
- 6×10^8
- 3×10^8
- 7×10^8

Question No.30 4.00

Bookmark

The resolving power of an optical microscope is

- 0.2 nm
- 0.2 µm
- 0.2 Å
- 0.2 mm

Question No.31 4.00

Bookmark ☐

If 5 men or 8 boys can do a work in 84 days. In how many days can 10 men and 5 boys can do the same work?

- 25
- 28
- 35
- 32

Question No.32 4.00

Bookmark ☐

Who disproved the spontaneous generation by showing that maggots only appear on decaying meat that has been exposed to flies?

- Joseph Lister
- Louis Pasteur
- Robert Koch
- Robert Hooke

Question No.33 4.00

Bookmark ☐

Since the _____ of the motor car, road accidents have increased dramatically.

- inception
- inauguration
- initiation
- advent

Question No.34 4.00

Bookmark ☐

E-test is employed for testing of _____.

- Antibody
- Antibiotics
- Antigen
- Probiotics

Question No.35 4.00

Bookmark ☐

A term is used to describe procedures performed outside of the living organism

- *In vitra*
- *In vitro*
- *In vivo*
- *In viva*

Question No.36 4.00

Bookmark ☐

_____media encourage the growth of an organism present in low numbers.

- Enrichment
- Transport
- Selective
- Differential

Question No.37 4.00

Bookmark

Choose the best antonym of the italicized word.
There are four chapters that are *extraneous* to the structure of the book.

- integral
- important
- relevant
- needful

Question No.38 4.00

Bookmark

Which technique can be used for detection of radioactivity?

- Avidin-streptavidin conjugate
- Liquid scintillation counting
- Biophotometry
- Immuno-precipitation

Question No.39 4.00

Bookmark

Which of the following cell possess poly morphonucleus

- B- cells
- Macrophage
- Erythrocyte
- Neutrophilis

Question No.40 4.00

Bookmark

Choose the correct meaning of the italicized idiom.
Those who work by *fits and start* seldom show good results.

- Rarely
- Regularly
- Irregularly
- Disinterestedly

Question No.41 4.00

Bookmark

All belong to Enteric proteobacteria group except

- *Shigella*
- *Staphylococcus*
- *Salmonella*
- *E. coli*

Question No.42 4.00

Bookmark

Rhizopus and *Mucor* belong to

- Zygomycota
- Basidiomycota
- Ascomycota
- Chytridiomycota

Question No.43 4.00

Bookmark

In chromatography, which of the following can the mobile phase be made of?

- Liquid or gas
- Solid or liquid
- Liquid only
- Gas only

Question No.44 4.00

Bookmark

Which of the following structure is absent in Gram positive bacteria

- Murein
- Cell wall
- Teichoic acid
- Outer membrane

Question No.45 4.00

Bookmark

Which of the following is not a type of Spectroscopy?

- X ray
- Sound
- Nuclear magnetic resonance
- Gamma ray

Question No.46 4.00

Bookmark

The major molecule responsible for rejection of transplant is

- Antibodies
- B Cells
- T Cells
- MHC Molecule

Question No.47 4.00

Bookmark

Agar is obtained from:-

- Blue-green algae
- Green algae
- Brown algae
- Red algae

Question No.48 4.00

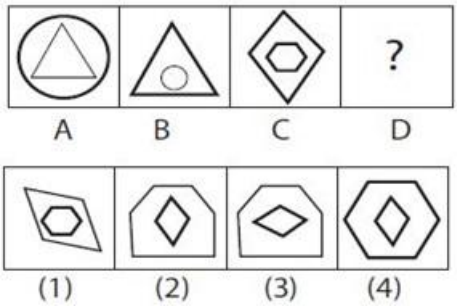
Bookmark

RFLP (Restriction Fragment Length Polymorphism) study is a technique for:-

- Isolating single genes
- Isolating single gene products
- Transferring genes from unrelated species
- Identifying genetic (DNA) homologies

Question No.49 4.00

Bookmark



- 1
- 4
- 3
- 2

Question No.50 4.00

Bookmark

Autoclaving uses _____ to sterilise

- air mixed with steam
- steam and pressure
- short periods of temperature
- chemicals

Question No.51 4.00

Bookmark

What cannot be a reason for using electrophoresis?

- Comparing two sets of DNA
- Organizing DNA by shape of backbone
- Organizing DNA in order we can see
- Organizing DNA fragments from largest to smallest

Question No.52 4.00

Bookmark

Antoni van Leeuwenhoek started out on his pioneering microscope work in

- 1670
- 1675
- 1671
- 1673

Question No.53 4.00

Bookmark

Microorganisms need molecular oxygen in low concentrate called

- Facultative anaerobes
- Aerotolerant anaerobes
- Microaerophiles
- Obligate anaerobes

Question No.54 4.00

Bookmark

If A+B means A is daughter of B,
A-B means A is husband of B
A × B means A is brother of B

From the statement P – Q + R × S, how is Q related to S?

- Niece
- Sister
- Mother
- None of these

Question No.55 4.00

Bookmark

Study the following information carefully and answer the question below it

(i) There is a group of five persons- A, B, C, D and E
(ii) One of them is manual scavenger, one is sweeper, one is watchman, one is human scarecrow and one is grave-digger
(iii) Three of them – A, C and grave-digger prefer tea to coffee and two of them – B and the watchman prefer coffee to tea
(iv) The human scarecrow and D and A are friends to one another but two of these prefer coffee to tea.
(v) The manual scavenger is C's brother

Who is a manual scavenger?

- D
- A
- C
- B

Question No.56 4.00

Bookmark

Anoxygenic photosynthesis found in :

- Green plant
- Green bacteria
- Cyanobacteria
- Algae

Question No.57 4.00

Bookmark

Choose the missing term : AZ, GT, MN, ?, YB

- TS
- SX
- KE
- SH

Question No.58 4.00

Bookmark

Which immunoglobulin is the least prevalent

- IgD
- IgE
- IgA
- IgG

Question No.59 4.00

Bookmark

These boys need some new books, _____?

- isn't it?
- do they?
- is it?
- don't they?

Question No.60 4.00

Bookmark

The main product of *Embden-Meyerhof pathway* is

- Citrate
- Phosphate
- Pyruvate
- Nitrate

Question No.61 4.00

Bookmark

He noticed that when lactic acid was produced in wine instead of alcohol, rod-shaped bacteria were always present, as well as the expected yeast cells

- Edward Jenner
- Louis Pasteur
- Robert Kock
- Toshep Lister

Question No.62 4.00

Bookmark

Choose the best antonym of the italicized word.
Many snakes are actually *innocuous.*

- ferocious
- poisonous
- harmful
- deadly

Question No.63 4.00

Bookmark

In recent times, the number of cases of death by poisoning _____ sharply.

- increased
- have increased
- had increased
- has increased

Question No.64 4.00

Bookmark

Process by which antibodies increase activity of phagocytosis of bacteria

- Capsules
- Transposons
- Opsonization
- Conjugation

Question No.65 4.00

Bookmark

A term that describes an organism that feeds on dead and decay inorganic materials.

- saprophyte
- phyton
- phyla
- saprobe

Question No.66 4.00

Bookmark

If in a certain language, GRASP is coded as BMVNK, which word would be coded as CRANE?

- FUDQH
- HWFSJ
- BQZMD
- XMVIZ

Question No.67 4.00

Bookmark

unicellular green alga, sexual reproduction only occurs under adverse conditions

- *Euglena*
- *Laminaria*
- *Trypanosoma*
- *Chlamydomonas*

Question No.68 4.00

Bookmark

The majority of microorganisms are:

- Thermophiles
- Mesophiles
- Psychrophiles
- Extreme thermophile

Question No.69 4.00

Bookmark

The microorganisms which must use one or more organic compounds as its source of carbon called

- Autotroph
- Chemotroph
- Heterotroph
- Lithotroph

Question No.70 4.00

Bookmark

Which animals may suffer from foot and mouth disease?

- Cattle and Pigs
- Cattle
- Cattle, Sheep and Pigs
- Cattle and Sheep

Question No.71 4.00

Bookmark

Which of the following is an example of a monosaccharide

- Starch
- Chitin
- Cellulose
- Glucose

Question No.72 4.00

Bookmark

When a solution containing ds DNA is heated above its Tm, the change observed in uv-visible spectra before and after treatment is called _____.

- Hyperchromic shift
- Bathochromic shift
- Hypsochromic shift
- Achromic shift

Question No.73 4.00

Bookmark

Based on the information given answer the following question.
1. In a family of six persons, there are people from three generations. Each has separate professions and they like different colours. There are two couples.
2. Shyam is an Engineer and his wife is not a doctor and she does not like Red colour.
3. Chartered Accountant likes green colour and his wife is a teacher.
4. Manisha is the mother-in-law of Sunita and she likes orange colour.
5. Vimal is the grand father of Tarun and tarun is the Principal and likes black colour.
6. Nyna is the grand daughter of Manisha and she likes blue colour. Nyna's Mother likes white colour.

Which of the following is the correct pair of two couples?

- Shyam-Manisha, Vimal-Sunita
- Cannot be determined
- Tarun-Nyna, Shyam-Sunita
- Shyam-Sunita, Vimal-Manisha

Question No.74 4.00

Bookmark

The term used to describe reactions that break down large molecules, usually coupled to a release of energy.

- Parabolism
- Metabolism
- Catabolism
- Anabolism

Question No.75 4.00

Bookmark

A two digit number is three times the sum of its digits. If 45 is added to it, the digits are reversed. The number is

- 31
- 27
- 32
- 35

Question No.76 4.00

Bookmark

"The micro organism must be capable of being isolated and grown in pure culture" one of ……

- Flemming 's postulates
- Pasteur 's postulates
- Alexander's postulates
- Koch's postulates

Question No.77 4.00

Bookmark

A microscope is an instrument that:

- Decrease the size of small objects
- Makes faraway objects look closer
- Increase the size of small objects
- Makes small objects appear larger

Question No.78 4.00

Bookmark

Study the following information carefully and answer the question below it:

Aasha, Bhuvnesh,Charan, Danesh, Ekta, Farhan, Ganesh and Himesh are sitting around a circle, facing the centre. Aasha sits fourth to the right of Himesh while second to the left of Farhan. Charan is not the neighbour of Farhan and Bhuvnesh. Danesh sits third to the right of Charan. Himesh never sits next to Ganesh.

Who among the following sits between Ganesh and Danesh?

- Charan
- Ekta
- Aasha
- Bhuvnesh

Question No.79 4.00

Bookmark

Coxiella is a member of the

- Acetic acid bacteria
- Reckettsia
- Spirilla
- Pseudomonads

Question No.80 4.00

Bookmark

An epitope is

- a hapten
- a B-Cell
- The antigen determinant site
- an antibody

Question No.81 4.00

Bookmark

The type of filter used in the Laminar air flow biological cabinet is:-

- High Efficiency Particulate Air filter
- High Efficiency Physiological Air filter
- High Efficiency Primary Air filter
- High Efficiency Physical Air filter

Question No.82 4.00

Bookmark

Statement: "A Car is required on rent"-An Advertisement
Assumptions:
I. All types of Vehicles are available on Rent
II. People will respond to the advertisements

- If both I and II are implicit
- If neither I nor II is implicit
- If only assumption I is implicit
- If only assumption II is implicit

Question No.83 4.00

Bookmark

The enzyme photolyase repair the thymine dimer in the DNA by

- Free radical mechanism
- Oxidation mechanism
- Adduct fromation
- Direct bond breaking

Question No.84 4.00

Bookmark

Cutaneous the most common infections found in humans, and are caused by

- Fungi
- Bacteria
- Virus
- Protozoa

Question No.85 4.00

Bookmark

A shift to lower wave number for an absorption in a spectrum corresponds to

- A loss of intensity
- A shift to higher energy
- A shift to lower wavelength
- A shift to lower frequency

Question No.86 4.00

Bookmark

Citrus canker is caused by

- Phytomonas
- Hay bacillus
- Lactobacillus
- Salmonella

Question No.87 4.00

Bookmark

Choose the correct meaning of the italicized idiom.
You cannot throw *dust into my eyes.*

- Hurt me
- Terrify me
- Cheat me
- Abuse me

Question No.88 4.00

Bookmark ☐

Who discovered the Polio vaccine?

- Eli Whitney
- Jonas Salk
- Louis Pasteur
- Konrad Zuse

Question No.89 4.00

Bookmark ☑

Which of the following is not associated with cell cycle?

- DNA polymerases
- Myosins
- CDK
- Cyclins

Question No.90 4.00

Bookmark ☐

Multicellular forms such as moulds have long, branched, threadlike filaments called

- Coenocytic
- Septum
- Mycellium
- Hypha

Question No.91 4.00

Bookmark ☐

Which is the reservoir of Neisseria meningitides

- Salt water
- Domesticated animals
- Human carriers
- Soil

Question No.92 4.00

Bookmark ☐

Choose the best synonym of the italicized word. The prisoners of war signed the document under *coercion.*

- compulsion
- confusion
- security
- supervision

Question No.93 4.00

Bookmark ☐

An absorption in an electronic spectrum is recorded at 17000 cm^{-1}.What does this correspond to in nm?

- 59000 nm
- 5900 nm
- 590 nm
- 59 nm

Question No.94 4.00

Bookmark ☐

Majority of the auto immune disease are

- Macrophage mediated
- Mast cells mediated
- Antibody mediated
- Cell Mediated

Question No.95 4.00

Bookmark ☐

Most microorganisms grow best around pH

- 3
- 7
- 5.5
- 8

Question No.96 4.00

Bookmark ☐

The role of Urea in PAGE separation of DNA is to

- Act as cation
- Act as anion
- Helps to denature DNA
- Provide buffer stability to the gel

Question No.97 4.00

Bookmark ☑

The phenomenon of production of ethanol by yeast cells under high concentration of glucose rather than producing biomass by TCA cycle is described as

- Olivosky's effect
- Simposn's effect
- Warburg effect
- Crabtree effect

Question No.98 4.00

Bookmark ☐

SCID can occur due to the absence of an enzyme

- Phosphorylase
- Thymidine deaminase
- Guanosine deaminase
- Adenosine deaminase

Question No.99 4.00

Bookmark ☐

The activity of AP endonuclease is involved in

- Double strand break repair
- Nucleotide excision repair
- Base excision repair
- Mismatch repair

Question No.100 4.00

Bookmark

Which of the following is a macronutrient?

- Iron
- Oxygen
- copper
- Zinc