027/22

Question Booklet Alpha Code

A

A

Question Booklet Sl. No.

Total Number of Questions : 100 **Time : 90 Minutes**

Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES

1. The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. **A, B, C** & **D**.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a Question Booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same alpha code.
6. The Question Booklet will be sealed at the middle of the right margin. Candidate should not open the Question Booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him/her contains all the 100 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the Question Booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices **(A), (B), (C)** and **(D)** having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

A

1. Which of the following staining procedure is employed for DNA ?
   A) Feulgen staining
   B) Negative staining
   C) Ziehl Neelsen staining
   D) Sudan black B staining

2. Which of the following inclusion body/bodies are present in Cyanobacteria ?
   i. Cyanophycin granules
   ii. Carboxysomes
   iii. Poly metaphosphate
   iv. Poly β hydroxy butyrate
   A) i and ii
   B) ii and iii
   C) Only iii
   D) Only iv

3. The following statements are characteristic of metabolic plasmids.
   i. They carry genes for enzymes that degrade aromatic substances.
   ii. They carry genes required for *Rhizobium* to induce legume nodulation.
   iii. They contain genes that codes for an enterotoxin.
   iv. They contain genes coding for antibiotic resistance.
   A) i and ii
   B) ii and iii
   C) Only iii
   D) iii and iv

4. Pick out the false statement/statements against peptidoglycan of bacteria.
   i. The presence of D amino acids protects against degradation by most peptidases.
   ii. D-alanine, D-glutamic acid and mesodiaminopimelic acid, present only in bacterial peptidoglycan are not found in other proteins.
   iii. Many bacteria replace mesodiaminopimelic acid with L-lysine.
   iv. All bacteria possess the peptide interbridge.
   A) i and ii
   B) ii and iii
   C) Only iv
   D) Only ii

5. Which of the following statements is/are not true regarding halophiles ?
   i. Halophiles grow optimally in the presence of NaCl or other salts at a concentration above 0.2 M.
   ii. Halophilic prokaryotes accumulate enormous quantities of potassium in order to remain hypertonic to their environment.
   iii. The plasma membrane and cell wall of *Halobacterium* are stabilized by low concentrations of sodium ion.
   iv. Enzymes, ribosomes and transport proteins requires high potassium levels for stability and activity.
   A) i, ii and iii
   B) ii and iii
   C) Only iv
   D) Only i

6. Match the given sterilant or disinfectants with their efficacy and choose the best answer given below.

Sterilant/Disinfectant	Efficacy
i. Betapropiolactone (BPL)	a. Plastic wraps
ii. Ethylene oxide	b. Laboratory equipment
iii. Hexachlorophene	c. Safety cabinets
iv. Glutaraldehyde	d. Vaccines
v. Vapourised hydrogen peroxide	e. Skin antiseptic

A) i – b, ii – c, iii – d, iv – e, v – a
B) i – c, ii – d, iii – e, iv – a, v – b
C) i – d, ii – a, iii – e, iv – b, v – c
D) i – c, ii – e, iii – a, iv – b, v – d

7. Match the antibiotics to their mechanism of action and choose the answer given below.

Antibiotic	Mode of action
i. Macrolides	a. Inhibits replication
ii. Aminoglycosides	b. Inhibits transpeptidation
iii. Sulphonamides	c. Interfere with protein synthesis
iv. Penicillins	d. Inhibits folic acid synthesis
v. Quinolones	e. Peptide chain elongation

A) i – b, ii – c, iii – d, iv – e, v – a
B) i – c, ii – d, iii – e, iv – a, v – b
C) i – e, ii – c, iii – d, iv – b, v – a
D) i – b, ii – c, iii – d, iv – e, v – a

8. Pick out the statement which is false regarding the accessory pigment of photosynthesis.
A) Phycocyanobilin contains a linear tetrapyrrole attached to a protein
B) Phycoerythrin is a red pigment with a maximum absorption of 550 nm
C) Accessory pigments absorbs light in the range absorbed by the chlorophylls
D) β carotene is present in *Cyanobacteria*

9. Spikes containing neuraminidase and haemagglutinin are present in one of the following viruses.
A) Hepatitis virus A
B) Rabies virus
C) Influenza virus
D) Pox virus

10. Amanitin, a mycotoxin, produced by *Amanita verna* causes the disease
A) Aflatoxicosis
B) Ergotism
C) Mushroom poisoning
D) Poultry haemorrhagic syndrome

11. Greatest resolution is obtained by using a lens with
    A) Large possible numerical aperture and light of the shortest wavelength
    B) Small possible numerical aperture and light of the shortest wavelength
    C) Large possible numerical aperture and light of the longest wavelength
    D) Small possible numerical aperture and light of the longest wavelength

12. Thin and distinctively shaped, *Treponema pallidum*, the causative agent of *syphilis* is better identified in clinical specimens, by using
    A) Phase contrast microscope B) Dark field microscope
    C) Fluorescent microscope D) Differential interference contrast microscope

13. Which of the following statement is not true of gel electrophoresis ?
    A) Charged molecules are placed in an electrical field and allowed to migrate towards the positive and negative poles
    B) The molecules separate as they move at different rates due to their differences in charge and size
    C) As DNA is negatively charged, it is loaded into wells at the negative pole of the gel and it migrates towards the positive
    D) Each fragment's migration rate is directly proportional to the log of its molecular weight

14. Choose the techniques which are effective in the purification of a virus preparation.
    i. Differential centrifugation
    ii. Gradient centrifugation
    iii. SDS PAGE
    iv. Polyacrylamide gel electrophoresis
    A) i and ii B) ii and iii C) iii and iv D) i and iv

15. Which of the following statements is/are not true of sedimentation ?
    i. The sedimentation rate of a given particle will be zero when the density of the particle and the surrounding medium are equal.
    ii. The greater the frictional coefficient is, the slower a particle will move.
    iii. The greater the centrifugal force is, the slower the particle sediments.
    iv. The denser the biological buffer system is, the slower the particle will move in a centrifugal field.
    A) i and ii B) i and iii C) Only iii D) Only iv

16. Caesium chloride, widely employed in the density gradient centrifugation, is used for the
    i. Banding of DNA
    ii. Isolation of plasmids
    iii. Isolation of nucleoproteins
    iv. Isolation of viruses
    A) Only i B) i and ii C) i, ii, iii and iv D) Only iv

17. _____ are strong exchangers, as they are totally ionized at all normal working pH values which are often used in the ion exchange chromatography.
A) Sulphonate and quaternary ammonium B) Carboxylate and diethylammonium
C) Sulphonate and diethylammonium D) Carboxylate and quaternary ammonium

18. Match the substance and the reagent used in Colorimetric and UV absorption assays.

Substance	Reagent
i. Amino acids	a. Diphenylamine
ii. Cysteine	b. Bial
iii. Protein	c. Ellman reagent
iv. DNA	d. Ninhydrin
v. RNA	e. Coomassie blue

A) i – b, ii – c, iii – d, iv – e, v – a
B) i – d, ii – c, iii – e, iv – a, v – b
C) i – c, ii – d, iii – e, iv – b, v – a
D) i – e, ii – d, iii – c, iv – b, v – a

19. Match the following and choose the best answer given below.

Spectroscopic technique	Application
i. NMR	a. Study metallo proteins
ii. EPR	b. Imaging of live samples
iii. SPR	c. Identification of sample constituents
iv. Infrared spectroscopy	d. Assess particle size
v. Fluorescence spectroscopy	e. Study the kinetics of antigen antibody interaction

A) i – e, ii – b, iii – c, iv – d, v – a
B) i – b, ii – c, iii – d, iv – a, v – e
C) i – c, ii – d, iii – e, iv – a, v – b
D) i – b, ii – a, iii – e, iv – c, v – d

20. Isolation of eukaryotic mRNA from a mixture of total cellular RNA is carried out by _____ technique.
A) Affinity chromatography B) Paper chromatography
C) Thin layer chromatography D) Immuno blotting technique

21. Which of the following statements is/are correct relating to passive immunity ?
i. Preformed antibodies are administered.
ii. There is no latent period.
iii. It involves the active functioning of the immune system.
iv. Immunity is long lasting.
A) i and ii B) ii and iii
C) iii and iv D) Only iv

22. The following statement is/are not true regarding superantigen like *Staphylococcus* enterotoxin.
    i. They activate a large number of T cells irrespective of their antigen specificity.
    ii. They bind outside the antibody binding groove directly to the lateral aspect of TCR β chain.
    iii. They bind to the $\alpha\beta$ heterodimer groove of the MHC molecules through the V regions of TCR α and β chains.
    iv. They are highly resistant to proteases and denaturation by CD4+T cells.
    A) i and ii B) iii and iv C) Only iii D) Only iv

23. Complementarity Determining Regions (CDRs) are present in the
    A) Fc fragment of antibody B) Fab fragment of antibody
    C) Hinge region of antibody D) C_H1 and C_L domains

24. Which of the following statement/statements is/are characteristic of secretory IgA (SIgA) ?
    i. Secretory piece present in SIgA is not produced by lymphoid cells.
    ii. Secretory piece is believed to protect SIgA from denaturation by bacterial proteases.
    iii. SIgA (MW about 4,00,000) is a smaller molecule than serum IgA.
    iv. IgA fixes complement.
    A) i and ii B) ii and iii C) iii and iv D) Only iii

25. The following is an/are example/examples of heterophile agglutination tests.
    i. Weil-Felix test
    ii. Paul-Bunnel test
    iii. *Streptococcus* MG agglutination test
    iv. Widal test
    A) i, ii B) i, ii, iii C) Only iii D) i, iii, iv

26. Complement participates in
    i. Type I hypersensitivity reaction
    ii. Type II hypersensitivity reaction
    iii. Type III hypersensitivity reaction
    iv. Type IV hypersensitivity reaction
    A) i and ii B) ii and iii C) Only i D) iii and iv

27. Which HLA Class molecule/molecules is/are responsible for the graft-versus-host response ?
    A) HLA Class I B) HLA Class II
    C) HLA Class III D) HLA Class I and Class III

28. Which of the following acts as an adjuvant in DPT vaccine ?
    A) Freund's incomplete adjuvant B) Freund's complete adjuvant
    C) *Bordetella pertussis* D) Aluminium hydroxide

29. Which of the deficiency leads to Wiskott-Aldrich syndrome ?
A) T and B cell B) T cell C) B cell D) Complement

30. Which of the following statement/statements is/are true of tumour antigens ?
i. Oncofetal antigens are found in embryonic and malignant cells.
ii. Carcinoembryonic antigen can be detected in the serum of patients with colon of carcinoma.
iii. The tumour associated transplantation antigens of virus induced tumours is virus specific.
iv. The tumour antigens are absent in the corresponding normal cells of the host.
A) i, ii and iii B) i and ii C) ii and iii D) Only iv

31. O-linked oligosaccharides are added to the serine or threonine residues of proteins post-translationally in the Golgi apparatus while N-linked oligosaccharides are added cotranslationally to the asparagine residues of proteins in the endoplasmic reticulum. Which one of them can influence the folding of the protein the most ?
A) O-linked oligosaccharides
B) N-linked oligosaccharides
C) Both O-linked and N-linked oligosaccharides show equal influence
D) Both O-linked and N-linked oligosaccharides cannot influence

32. Of the following lipid components, which one increases the fluidity of the cell membrane the most ?
A) Cis unsaturated fatty acids B) Trans unsaturated fatty acids
C) Long chain saturated fatty acids D) Medium chain saturated fatty acids

33. When a protein denatures
A) Primary, secondary and tertiary structures are altered and its function is lost
B) Secondary and tertiary structure are altered, but primary structure and its functions are retained
C) Secondary and tertiary structure are altered, but primary structure is intact, though its function is lost
D) Primary, secondary and tertiary structures is intact, but loses its function because of the changes in quaternary structure

34. A researcher prepared a plant extract which when added to the enzyme pepsin, the enzyme activity reduced to 2/3rd of its original activity. When double the amount of protein substrate was added to the mixture, the enzyme activity came back to the original level. What would be the maximum reaction velocity observed in the presence of the plant extract ? (Maximum reaction velocity in the absence of the extract is designated as V_{max})
A) V_{max} B) 2 V_{max} C) 2/3 V_{max} D) 1/3 V_{max}

35. Receptors of peptide hormones are
A) Cytoplasmic B) Nuclear C) Transmembrane D) All of the above

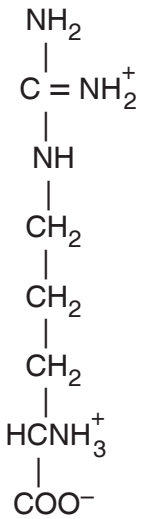
36. Scientist have identified a new species of plant from Western Ghats. To study its uniqueness, they isolated the DNA and prepared a cot value curve. Which of the following information is not possible to get, on analyzing the cot value curve ?
A) Idea about genome size and complexity
B) Understanding the relative proportion of single copy and repetitive sequence
C) Idea on how many times a sequence repeats itself
D) Determination of exact GC content

37. Which of the following molecule is derived from cholesterol ?
A) Prostaglandin B) Taurocholic acid C) Somatostatin D) Stearic acid

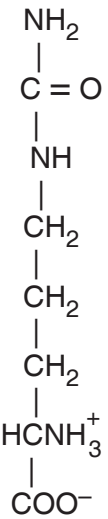
38. Ammonium sulphate precipitation is commonly employed during the isolation of proteins. Which of the following technique can be used to remove ammonium sulphate from the solution after ammonium sulphate precipitation ?
A) Lyophilization B) Chromatography C) Dialysis D) Electrophoresis

39. In some inflammatory and autoimmune diseases, some arginine residues in histone proteins are replaced by citrulline residues. These altered proteins can be easily separated by electrophoresis. What is the change you can observe in their electrophoretic mobility ?

Arginine



Citrulline



A) Citrullinated proteins move faster than the native proteins towards the anode
B) Citrullinated proteins move slower than the native proteins towards the anode
C) Citrullinated proteins give multiple bands when compared to the native proteins
D) None of the above

40. Which of the following statement about fructose is true ?
    A) Most predominant conformation of fructose in solution is β – fructopyranose
    B) In polysaccharides, fructose is seen in their furanose form
    C) Fructose is hygroscopic
    D) All of the above

41. The linking number of DNA
    A) Is a topological property
    B) Determines the degree of supercoiling
    C) Is the sum of Twist (Tw) and Writhe (Wr)
    D) All the above

42. The Klenow fragment of DNA polymerase I has
    A) 5′ – 3′ exonuclease activity
    B) 3′ – 5′ exonuclease activity
    C) Very high processivity
    D) Helicase activity

43. The role of σ^{70} (sigma-70) in prokaryotic transcription is
    A) Binding DNA template
    B) Binding regulatory sequences
    C) Forming phosphodiester bonds
    D) Recognizing the promoter and initiating RNA synthesis

44. Eukaryotic RNA polymerase II transcribes
    A) 18s rRNA
    B) tRNA
    C) mRNA
    D) 5s rRNA

45. Which of the following statement is incorrect regarding splicing ?
    A) Splicing is accomplished by two transesterification reactions
    B) At the end of splicing, the intron is released in the form of a lariant
    C) The 2′ – OH of the adenine at the branch site attacks the 3′ – splice site
    D) snRNAs in spliceosome catalyze the splicing of mRNA precursors

46. Lac repressor protein in the absence of inducer binds to the operator and thereby
    A) Activates transcription
    B) Blocks transcription
    C) Attenuates transcription
    D) None of the above

47. The phenomenon by which some t-RNA molecules recognize more than one codon is because of
    A) Watson-Crick base pairing
    B) Wobble base pairing
    C) Hoogsteen base pairing
    D) Purine-purine base pairing

48. Shine-Dalgarno sequence is
    A) Centered about 10 nucleotides on the 5′ side of the initiator codon
    B) A part of prokaryotic m-RNA
    C) A purine rich region
    D) All the above

49. The enzyme which can be used to synthesize DNA from mRNA by providing an oligo(dT) primer that pairs with the poly (A) sequence at the 3′ end of eukaryotic mRNA is
A) Reverse transcriptase B) Restriction endonuclease
C) Topoisomerase D) Primase

50. The plasmids which can be used for introducing new genes into plant cells are
A) R plasmids B) Col plasmids C) Ti plasmids D) F plasmids

51. Genes from higher organisms may be introduced into microbial cells so that the recipients become capable of synthesizing foreign proteins which are described as
A) Isomeric proteins B) Conjugated proteins
C) Heterologous proteins D) Fusion proteins

52. The key factor/s affecting the hyphal morphology in submerged culture are
i. The concentration of spores in the medium
ii. Design of the medium
iii. Shear conditions
iv. Volume of the medium

Select the correct option from the following.
A) Only i B) Only ii and iii
C) Only i, ii and iii D) All the above i, ii, iii, iv

53. The washout of the inoculum before an adapted culture is established is the main difficulty in using a
A) Continuous-enrichment process B) Batch-enrichment process
C) Fed-batch-enrichment process D) All the above

54. The SSF bioreactor in which the bed is static or mixed only very infrequently (i.e., once per day) and air is blown forcefully through the bed is typically referred to as
A) Tray bioreactor B) Packed-bed bioreactor
C) Rotating drum bioreactor D) Gas-solid fluidized bed bioreactor

55. Wine obtained from which one amongst the following is whitish and effervescent liquid, both of which properties derive from the fact that the fermenting organisms are numerous and alive when consumed ?
A) *Malus pumila* B) *Artemesia absinthium*
C) *Vitis vinifera* D) *Elaeis guiniensis*

56. Who first of all proposed the utilization of microorganisms as one of the solutions to the oil recovery issue ?
A) J. W. Beckman in 1926 B) C. E. ZoBell in 1946
C) D. R. Schmitt in 1975 D) A. A. Grigoryan

57. An organic compound when exposed to a two-phase immiscible system, it will dispense itself between these two phases in a definite ratio called as
A) Partition coefficient
B) Segregation coefficient
C) Distribution coefficient
D) Diffusion coefficient

58. The efficiency of solid particles as antifoam entities depends mainly on their
i. Hydrophobicity
ii. Shape
iii. Size
iv. Volume
Select the correct option from the following.
A) Only i and iii
B) Only ii and iii
C) Only i and iv
D) Only i, ii and iii

59. 'Porter' and 'Stout' are varieties of
A) Wine
B) Beer
C) Vinegar
D) None of the above

60. Which one amongst the following is one of the method of enzyme microencapsulation ?
A) Pervaporation
B) Impingement
C) Perstraction
D) Coacervation

61. Which gene is responsible for Methicillin resistance in Staphylococcus aureus ?
A) mec A gene
B) Van A gene
C) Van B gene
D) erm gene

62. An invitro virulence test which is used for the toxigenicity testing of Diphtheria ?
A) Schick test
B) Dick test
C) Elek's gel precipitation test
D) Sub cutaneous test

63. Name the causative agent of diarrhea which is common in persons from developed countries visiting endemic areas.
A) ETEC
B) EHEC
C) EPEC
D) EAEC

64. Which of the following is a specific test for syphilis ?
A) RPR
B) TPHA
C) VDRL
D) All of these

65. Which one of the following is a non-neural vaccine for Rabies ?
A) Semple vaccine
B) BPL vaccine
C) Infant mouse brain vaccine
D) Purified chick embryo cell vaccine

66. Covid 19 is a
A) Non-enveloped RNA virus
B) Enveloped DNA virus
C) Enveloped RNA virus
D) Non-enveloped DNA virus

67. Which of the following is a non-cultivable fungus ?
A) Candida albicans
B) Rhinosporidium seeberi
C) Actinomyces
D) Blastomyces dermatitidis

68. Asexual reproductive structures of Zygomycetes are
A) Sporangiospore B) Ascospore C) Basidiospore D) Fungi imperfecti

69. Which method of peripheral smear examination is useful for species identification of Malaria ?
A) Thick smear B) Thin smear C) QBC D) Both thick and thin

70. Kala azar is transmitted to humans by the bite of
A) Mosquito B) Tsetse fly C) Tick D) Sand fly

71. A yeast genus commonly found in fresh ground beef, poutry, kefir grains and caco beans, whose generic name means 'shining white'
A) Pichia B) Candida C) Saccharomyces D) Rhodotorula

72. Depression in pH value of meat upon completion of rigor mortis is due to the conversion of 1% glycogen to
A) Sialic acid B) Acetic acid C) Lactic acid D) Gluconic acid

73. Choose the correct statement.
A) At any temperature the ability of micro-organism to grow is reduced as the water activity is lowered.
B) Range of water activity over which growth occurs is greatest at the optimum temperature of growth.
C) The presence of nutrients increases the range of water activity over which the organisms can survive.
D) All of these

74. Which of the following is not a prebiotic ?
A) Inulin B) Fructooligosaccharide C) Lactose D) Lactulose

75. _____ produced during colonic fermentation determine the pH of colonic lumen.
A) Short chain fatty acids B) Lactic acid
C) Both (A) and (B) D) None

76. 12-D concept is related to the probability of survival of _____ in foods.
A) *Clostridium botulinum* B) *Bacillus strearothermophilus*
C) *Brevibacterium* D) All of these

77. The presence of _____ in Modified Atmospheric Package (MAP) gases can reduce the risk of botulism in seafood.
A) Oxygen B) Hydrogen C) Helium D) Nitrogen

78. The Z value for most of the bacteria ranges between
A) 40 – 70°C B) 30 – 40°C C) 20 – 25°C D) 5 – 10°C

79. _____ are primary group of organisms involved in sauerkraut fermentation.
A) Yeast B) Lactic acid bacteria
C) Fungus D) Spore forming bacteria

80. Antimicrobial activity of hydrogen peroxide is attributed to
A) Strong oxidizing effect on the bacterial cell
B) Destruction of basic molecular structures of cell proteins
C) Both (A) and (B)
D) None

81. Secondary metabolites are produced during _____ phase of growth.
A) Exponential B) Stationary C) Trophophase D) Lag

82. Inner surface of bioreactors are coated with _____ to limit wall growth.
A) Teflon B) Steel C) Brass D) Glass

83. Carbon source that can be used for production of single cell protein
A) Whey B) Cellulose C) Hydrocarbons D) All of these

84. _____ is a technique where modified fermenters up to 100 dm^3 are gently stirred and broth continuously removed from the vessel and passed through stainless steel or ceramic filter.
A) Perfusion culture B) Hollow filter chamber
C) Radial flow fermenter D) Stirred fermenter

85. Yeast _____ is one of the commercially important source of lactase.
A) *Saccharomyces boulardi* B) *Torulopsis*
C) *Pichia* D) *Klyveromyces lactis*

86. _____ are used for the circulation of steam and cooling water during the heating and cooling cycles of sterilization of the fermenter.
A) Baffles B) Jacket C) Sparger D) Agitator

87. 100 pounds of yeast can produce _____ tonnes of protein within 24 hrs.
A) 2.5 B) 25 C) 250 D) 500

88. An optimum temperature above _____ °C is usually preferred for industrially important micro-organisms as it can reduce cooling cost.
A) 30 B) 40 C) 50 D) 37

89. Workers in factory that work with amylase are at an increased risk of
A) Arteriosclerosis B) Diabetes C) Asthma D) Ascites

90. Example for catabolic product resulting from primary metabolism
A) Citric acid B) Nucleic acid C) Lactic acid D) Enzyme

91. According to FSSAI regulations double toned milk should have a minimum fat and SNF of _____ respectively.
A) 3.0% and 8.0% B) 1.5% and 8.5%
C) 1.5% and 9.0% D) 3.5% and 8.5%

92. Early blowing in canned dairy products is due to
A) Bacillus B) Coliforms C) Clostridium D) All of these

93. _____ is the chief immunoglobulin in milk and confers passive immunity.
A) IgA B) IgG C) IgE D) IgM

94. The disappearance of blue colour in milk during MBRT is due to
A) Removal of oxygen from milk
B) Formation of reducing substance during bacterial metabolism
C) Both (A) and (B)
D) None

95. A psychrotrophic bacteria capable of producing thermostable proteases and lipases causing spoilage in milk
A) *Lactobacillus* B) *E. Coli* C) *Pseudomonas* D) *Leuconostoc*

96. To reduce the microbial load and to encourage whey protein/casein interaction the milk for _____ manufacture is severely heated to 95°C for 5 min.
A) Cream B) Yoghurt C) Ice cream D) All of these

97. As per FSSAI microbiological requirement for yeast and mold count in pasteurized butter are m = _____ and M = _____.
A) 10/g and 100/g B) 50/g and 250/g C) 20/g and 50/g D) 20/g and 90/g

98. The biochemical test used to check aroma producing starter culture based on its ability to produce acetyl methyl carbinol and diacetyl is
A) Horrell Elliker test B) Hotis test
C) Creatine test D) White Head and Cox test

99. Bacillus cereus poisoning is an example for
A) Food infection B) Toxi infection
C) Food intoxication D) None

100. Rennet causes destabilization of casein micelle to _____ and glycomacropeptide.
A) Beta casein B) Alpha casein C) Para k-casein D) None

Space for Rough Work