BIOLOGY

BOOKS - GR BATHLA & SONS BIOLOGY (HINGLISH)

MICROBES IN HUMAN WELFARE

Multiply Choice Questions

1. Milk is converted into curd by :

A. Bacillus megatherium

B. Xanthomonas citri

C. Acetobacter aceti

D. None of these

Answer: D

Watch Video Solution

2. Bacterium useful in dairy and curdling of milk is :

A. Micrococcus

B. Streptococcus lactis

C. Streptomyces rimosus

D. Diplococcus pneumoniae

Answer: B

Watch Video Solution

3. Lactobacillus mediated conversion of milk to curd results because of:

A. coagulation and partial digestion of milk fats

B. coagulation and partial digestion of milk proteins

C. coagulation of milk proteins and complete digestion of milk fats

D. coagulation of milk fats and complete digestion of milk protein

Answer: B

Watch Video Solution

4. Lactic acid bateria convert milk into curd an improves its nutritional quality by enhancing vitamin :

A. A

B. B

C. C

D. D

Answer: B

Watch Video Solution

5. During lactic acid fermentation,.....

A. O_2 is used , CO_2 is liberated

B. O_2 is not used , CO_2 is not liberated

C. O_2 is used, CO_2 is not liberated

D. Neither O_2 is used nor CO_2 liberated

Answer: D

Watch Video Solution

6. Heating of milk of ant other liquid at 63° C and sudden cooling is known as :

A. Preservation

B. Sterilization

C. Fermentation

D. Pasteurization

Answer: D

Watch Video Solution

7. Pasteurization makes foodstuffs free from:

A. vegetative forms of milk borne pathogens

B. all vegetative forms of bacteria

C. all living organisms

D. all bacteria

Answer: A

Watch Video Solution

8. Curd, milk, cheese and butter are produced with the help of:

A. Penicillium

B. Streptococcus

C. Saccharomyces

D. None of these

Answer: B

Watch Video Solution

9. Which one is the most important role of microorganism for the wellbeing of humans?

A. Sewage treatment

B. Production of methane

C. Conversion of milk to curd

D. Biological control of plant disease

Answer: C

Watch Video Solution

10. Rennin used in cheese indusry is

A. enzyme

B. inhibitor

C. alkaloid

D. antibiotic

Answer: A

Watch Video Solution

11. In cheese, manufacture microorgansim are important for :

A. Ripening only

B. Souring of milk only

C. Development of resistance to spoilage

D. Both souring and ripening processes

Answer: D

Watch Video Solution

12. Rennet is employed in :

A. fermentation

B. bread-making

C. preparation of cheese

D. synthesis of antibiotics

Answer: C

Watch Video Solution

13. In olden days , cheese was prepared by :

A. Aspergillus

B. Clostridium

C. Rennet enzyme

D. None of these

Answer: C

Watch Video Solution

14. Which of the following is useful in the preparation of Roquefort cheese?

A. Rhizopus

B. Penicillium

C. Leuconostoc

D. Saccharomyces

Answer: B

Watch Video Solution

15. Big holes in Swiss cheese are made by a

A. machine

B. bacterium that produces methane gas

C. bacterium producing a large amount of carbon dioxide

D. fungs that release a lot of gases during its metabolic activities

Answer: C

Watch Video Solution

16. Streptococcus is employed in the manufacture of:

A. wire

B. bread

C. cheese

D. all of these

Answer: C

Watch Video Solution

17. Which one of the following is not uded in the production of yoghurt

A. Acetobacter aceti

B. Streptococcus lactis

C. Lactobacillus bulgaricus

D. Streptococcus thermophilus

Answer: A

Watch Video Solution

18. Which one of the following combinations of organisms are responsible for the formation and flavour of yoghurt gt

A. Bacillus subtilis and E. coli

B. Rhizobium melioti and Azotobacter

C. Bacillus magathermus and Xanthomonas sp.

D. Lactobacillus casei and Streptococus thermophilus

Answer: D

Watch Video Solution

19. Cheese and Yoghurt are porduct of the porcess

A. distillation

B. dehydration

C. fermentation

D. Pasteurization

Answer: C

Watch Video Solution

20. Gray biotechnology' is referred to :

A. medical process

B. aquatic process

C. industrial process

D. agricultural process

Answer: C

Watch Video Solution

21. The science, enology deals with the production of :

A. wine

B. cheese

C. yoghurt

D. antibiotics

Answer: A

Watch Video Solution

22. Conversion of sugar into alcohol during fermentation is due

A. zymase

B. temperature

C. microorganisms

D. concentration of sugar solution

Answer: A

Watch Video Solution

23. The enzyme used for alcohol formation by fermentation is :

A. lipase

B. zymase

C. amylase

D. invertase

Answer: B

Watch Video Solution

24. Yeast produces an enzyme complex that is responsible for fermentation. The enzyme complex is

A. Zymase

B. Enolase

C. Invertase

D. Dehydrogenase

Answer: A

Watch Video Solution

25. Which one of the following is used in the production of alcohol ?

A. Torulopsis utilis

B. Clostridium botulinum

C. Leuuconostoc citrovorum

D. Saccharomyces cerevisiae

Answer: D

Watch Video Solution

26. Yeast is used in the formation of :

A. curd

B. petrol

C. alcohol

D. ammonia

Answer: C

Watch Video Solution

27. When yeast ferments glucose, the products are:

A. water$+CO_2$

B. Ethanol $+H_2O$

C. Ethanol $+CO_2$

D. Methanol $+CO_2$

Answer: C

Watch Video Solution

28. Germinating barley seeds are employed in the preparation of

A. beer

B. wine

C. cheese

D. lactic acid

Answer: A

Watch Video Solution

29. Which raw material is used in fermantation process of making beer

A. Sugar in fruits

B. Starch in cereals

C. Protein in pulses

D. Starch in vegetables

Answer: B

Watch Video Solution

30. Leavened bread is produced with the help of :

A. yeast

B. Rhizopus

C. Neurospora

D. Lactobacillus

Answer: A

Watch Video Solution

31. Yeast are economically important because these:

A. are used in tobacco and tea factories

B. are used in bakeries and breweries

C. spread diseases in animals

D. spread diseases in plants

Answer: B

Watch Video Solution

32. A new strain of bacteria produced by biotechnology in alcohol industry is:

A. Escherichia coli

B. Bacillus subtilis

C. Pseudomonas putida

D. Saccharomyces cerevisiae

Answer: C

Watch Video Solution

33. The microorganism grown on molasses and sold as a food flavouring agent is :

A. Alcohol yeast

B. Baker's yeast

C. Both of these

D. None of these

Answer: B

Watch Video Solution

34. Baker's yeast is :

A. S. cerevisae

B. S. ludwingii

C. S. octosporus

D. Schizosccharomyces

Answer: A

Watch Video Solution

35. Which one is used for preparation of bread?

A. Aspergillus

B. S. cerevisiae

C. Lactobacillus

D. Streptobacillus

Answer: B

Watch Video Solution

36. Which is used for preparing alcohol?

A. Penicillium

B. Acetobacter

C. Lactobacillus

D. Saccharomyces

Answer: D

Watch Video Solution

37. Which one of the following pairs is wrongly matched

A. Detergents - Lipase

B. Textile-Amylase

C. Fruit juice-Pectinase

D. Alcohol-Nitrogenase

Answer: D

Watch Video Solution

38. Which one of the following alcoholic drinks is produced without distillation ?

A. Rum

B. Wine

C. Brandy

D. Whisky

Answer: B

Watch Video Solution

39. Yeast Saccharomyces cerevisiae is used in the industrial production of:

A. Ethanol

B. corn meal

C. soya meal

D. ground gram

Answer: A

Watch Video Solution

40. Ethanol is commerically produced through a particular species of :

Watch Video Solution

41. The most cammon substrate used in disrlilleris for the production of ehanol is

A. molasses

B. corn meal

C. soya meal

D. ground gram

Answer: A

Watch Video Solution

42. Substrate for alcohol formation is :

A. Maize

B. Bajra

C. Sucrose

D. Galactose

Answer: C

Watch Video Solution

43. Torulopsis utils is

A. a food yeast

B. an important intestinal commersal

C. employed for the citric acid synthesis

D. a microorganism that yields third generation vaccines

Answer: A

Watch Video Solution

44. The application of microbial metabolism to trensform simple raw materials into valuabale products is

A. biocatalysis

B. fermentation

C. tissue culture

D. genetic engineering

Answer: B

Watch Video Solution

45. The fruit jucis turms bitter in taste if they are kept in open place for sometime, because of

A. bacteroa of the atmosphere react with the jucie

B. fermentation of the juice by yeast

C. some internal factors

D. all of the above

Answer: B

Watch Video Solution

46. Probiotics are

A. Food allergens

B. safe antibiotics

C. cancer inducing microbes

D. live microbial food supplements

Answer: D

Watch Video Solution

47. Fermentation consists of three steps . The correct sequence is :

A. Inoculation , sterilisation and inoculation

B. Product recovery , sterilisation and inoculation

C. Sterilisation, inoculation and product recovery

D. Sterilisation , product recovery and inoculation

Answer: C

Watch Video Solution

48. A bioreactors refers to

A. fermentation tank

B. tank for biochemical reactions

C. organisms reacting to a stimulus

D. nuclear reactor for biological studies

Answer: A

Watch Video Solution

49. Which of the folliowing statements is not trur for stirred tank fermentation

A. Buffer needed to control

B. Batch and feed possible

C. Control dissolved oxygen

D. Easy in process sampling

Answer: C

Watch Video Solution

50. The method of growing microorganism as a thin layer on the nutrient medium is known as:

A. Suspended growth system

B. Thin layer growth system

C. Support growth system

D. None of the above

Answer: C

Watch Video Solution

51. Axenic culture is best defined as:

A. Cell culture free from other microorganisms

B. Cell culture free from microorganisms

C. Cell culture of insectivorous plant

D. Cell culture

Answer: A

Watch Video Solution

52. Fermentation is represented by the equation

A. $C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O + 673Kcal$

B. $C_6H_{12}O_6 \rightarrow 2C_2H_5OH + 2 + 2CO_2 + 58kcal$

C. $6CO_2 + 12H_2O + C_6H_{12}O_6 + 6H_2O + 6O_2$

D. $6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6H_2O + 6O_2$

Answer: B

Watch Video Solution

53. The terms anaerobic and fermentation :

A. are one and the same

B. fermentation is souring

C. anaerobi respiration takes place in lower organisms

D. fermentation is anaerobic respiration by microorgansims and anaerobic respiration may take place sometimes in higher organisms

Answer: D

Watch Video Solution

54. Industrial production of ethanol from which is brought about by a certain species of:

A. Penicillin

B. Azotobacter

C. Saccharomyces

D. Lactobacillus

Answer: C

Watch Video Solution

55. Which among these are production by distillation of fermented broth?

(i) Whisky (ii) Wine

(iii) Beer (iv) Rum

(v) Brandy

A. (ii) and (iii) alone

B. (i) and (ii) alone

C. (iii) and (v) alone

D. (i),(iv) and (v) alone

Answer: D

Watch Video Solution

56. A complex polysaccharide produced from sucrose by the bacterium Leuconostoc mesenteroides is

A. chitin

B. starch

C. dextran

D. cellulose

Answer: C

Watch Video Solution

57. Which of these participate in the manufacture of dextrans ?

A. Mucor

B. Leuconostoc

C. Pseudomonas

D. Lactobacillus

Answer: B

Watch Video Solution

58. Dextran is used in :

A. bleeding

B. blood clotting

C. blood transfusion

D. blood preservation

Answer: C

Watch Video Solution

59. For industrial use , pure preparation of rennet enzyme was made by

A. Louis Pasteur

B. Christian Hansen

C. Payen and Persoz

D. Murray and Peterson

Answer: B

Watch Video Solution

60. Majority of industrial enzymes are produces from :

A. Algae

B. Mycoplasma

C. Gram-positive bacteria

D. Gram-negative bacteria

Answer: C

Watch Video Solution

61. The enzyme distase was identified by

A. Louis Pasteur

B. William Kuhne

C. Payen and Persoz

D. Christian Hansen

Answer: C

Watch Video Solution

62. Diastase converts :

A. Protein into sugar

B. Fats into fatty acids

C. Starch into maltose

D. Polypeptide into dipeptides

Answer: C

Watch Video Solution

63. An enzyme that can stimulate germination of barley seeds is

A. lipase

B. Protease

C. Invertase

D. α-amylase

Answer: D

Watch Video Solution

64. Which of the following enzymes is used in detergent and leather industries?

A. lipase

B. Protease

C. Glucoamylase

D. Glucose isomerase

Answer: B

Watch Video Solution

65. Modern detergents contain enzyme preparations of

A. Acidophiles

B. Alkaliphiles

C. Thermophiles

D. Thermoacidophiles

Answer: B

Watch Video Solution

66. Enzyme tissue plasminogen activator (TPA) is used for:

A. Dissolving blood clots

B. Clearing turbidity of juices

C. Maintaining turgor pressure

D. Stimulating thromboplastin production

Answer: A

Watch Video Solution

67. Which proteolytic enzyme induce lysis of fibrin during fibrinolysis ?

A. Plasmin

B. Fibrin

C. Thrombin

D. Platelet factor VIII

Answer: A

Watch Video Solution

68. Match the following list of bioactive substances and their roles.

Bioactive substance	Role
(i)Statin	(A)Removal of oil stains
(ii)CyclosporinA	(B)Removal of clots from blood vessels
(iii)Streptokinase	(C)Lowering of blood cholesterol
(iv)Lipase	(D)Immuno-suppressive agent

Choose the correct match.

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

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

C. (i)-(d),(ii)-(a),(iii)-(d),(iv)-(c)

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

Answer: D

Watch Video Solution

69. The product of which of the following organsims has been commercialised as blood cholesterol lowering agent:

A. Saccharomyces cerevisiae

B. Trichoderma polysporum

C. Monascus purpureus

D. Aspergillus niger

Answer: C

Watch Video Solution

70. Continous addition of sugars in 'fed batch' fermentation is done to

A. degrade sewage

B. produce methane

C. obtain antibiotics

D. purify enzymes

Answer: D

Watch Video Solution

71. The concept of antibiosis was prodounded in 1889 by:

A. Louis Pasteur

B. Paul Vuillemin

C. Selman Waksman

D. Alexander fleming

Answer: B

Watch Video Solution

72. The terms "antibiotic " was coined by:

A. Edward Jenner

B. Louis Pasteur

C. Selman Waksman

D. Alexander fleming

Answer: C

Watch Video Solution

73. Waksman was a well known:

A. bryologist

B. phycologist

C. pteridologist

D. soil microbiologist

Answer: D

Watch Video Solution

74. Which of the following microbiologists won, the Nobel Prize in physiology and medicine in 1952 ?

A. Paul Ehrlich

B. Selman A. Waksman

C. Emil A. von Behring

D. Sir Alexander fleming

Answer: B

Watch Video Solution

75. Selman A. Waksman won Nobel Prize for:

A. Discovery and development of penicillin

B. Theories on the development of immunity

C. Discovery and devlepment of streptomycin

D. Development of serum therapy for diphtheria

Answer: C

Watch Video Solution

76. Antibiotics are mostly obtained from:

A. Fungi

B. Viruses

C. Bacteria

D. Angiosperms

Answer: C

Watch Video Solution

77. Antibiotics are :

A. bacteria that fix nitrogen

B. toxins produced by bacteria

C. drugs manufactured by bacteria

D. products of metabolism of bacteria

Answer: C

Watch Video Solution

78. Antibiotics are mostly produced commercially from:

A. immune host

B. parasitic host

C. saprophytic bacteria

D. viruses and other pathogenic microbes

Answer: C

Watch Video Solution

79. A compound which is produced by an organism and inhibits the growth of other organisms is called:

A. Antigen

B. Antibody

C. Antibiotic

D. Antimetabolite

Answer: C

Watch Video Solution

80. Antibiotics are:

A. toxins

B. drugs

C. syrups

D. plants

Answer: B

Watch Video Solution

81. Antibiotics inhibit the growth of or destroy

A. Bacteria and fungi

B. Bacteria and viruses

C. Bacteria , fungi and viruses

D. Bacteria , algae and viruses

Answer: A

Watch Video Solution

82. Antibiotics are obtained from

A. Fungi

B. Bacteria

C. Actinomycetales

D. All of these

Answer: D

Watch Video Solution

83. The prerequisties for biotechnological production of antibiotics is

A. to seacrh an antibiotic producing microorgansim

B. to join antibiotic gene with E.coli plasmid

C. to isolate antibiotic gene

D. all of the above

Answer: D

Watch Video Solution

84. First antibiotic isolated was

Or

Antiboitics are produced by

A. Penicillin

B. Neomycin

C. Streptomycin

D. Erythromycin

Answer: A

Watch Video Solution

85. Which of the following was an accidental discovery?

A. DNA

B. Insulin

C. Penicillin

D. Chloramphenicol

Answer: C

Watch Video Solution

86. Penicillin was discovered by:

A. Dubois

B. Waksman

C. A. Fleming

D. Robert Koch

Answer: C

Watch Video Solution

87. In 1928 , a scientist an antibiotic which was found to be very effective.

The name of the scientist and the antibiotic respectively are:

A. Woodruff and Actinomycin

B. Waksman and Streptomycin

C. Ceaser Milstein and Rifampicin

D. Alexander fleming and Penicillin

Answer: D

Watch Video Solution

88. Sir Alexander Flemming extracted penicillium from

A. Bacillus brevis

B. Penicillium notatum

C. Penicillium chrysogenum

D. Penicillium griseofulvin

Answer: B

Watch Video Solution

89. Broad spectrum antibiotic is that which

A. acts on both pathogen and host

B. acts on all bacteria and viruses

C. is effective in very small amounts

D. acts on a variety of pathogenic microoganisms

Answer: D

Watch Video Solution

90. Which of the following is a broad spectrum antibiotic?

A. Chloramphenicol

B. Aureomycin

C. Terramycin

D. All of these

Answer: D

Watch Video Solution

91. The antibiotic cephalosporin is obtained from a species of:

A. Algae

B. Bacillus

C. Fungus

D. Streptomyces

Answer: C

Watch Video Solution

92. The antibiotic inhibiting cell wall formation in bacterial cell is

A. Clavicin

B. Penicillin

C. Ergotine

D. None of these

Answer: B

Watch Video Solution

93. Modified antibiotics are manufactured by the technique of :

A. vernalization

B. ultrafiltration

C. ultracentrifuge

D. genetic engineering

Answer: D

Watch Video Solution

94. Which of the following is not an antibiotic

A. Citric acid

B. Cephalosporin

C. Streptomycin

D. Griseofulvin

Answer: A

Watch Video Solution

95. Highest number of antibiotics are produced by

A. Bacillus

B. Penicillium

C. Streptomyces

D. Cephalosporium

Answer: C

Watch Video Solution

96. Terramycin is obtained from:

A. Streptomyes fradia

B. Streptomyces rimosus

C. Streptomyces venezuelae

D. Streptomyces aureofaciens

Answer: B

Watch Video Solution

97. Oxytetracycline is another name for:

A. Penicillin

B. Terramycin

C. Neomycin

D. Streptomycin

Answer: B

Watch Video Solution

98. Terramycin inhibits the growth of :

A. Gram-positive bacteria

B. Fram-negative bacteria

C. Both of these

D. None of the above

Answer: C

Watch Video Solution

99. Streptomyces venezuelae is used to obtain:

A. Aureomycin

B. Tetracycline

C. Streptomycin

D. Chloramphenicol

Answer: D

Watch Video Solution

100. Chloroamphenicol and erythromycin are produced by:

A. Rhizobium

B. Nitrobacter

C. Streptomycin

D. Streptomyces

Answer: D

Watch Video Solution

101. The drug streptomycin inhibits the process of

A. Prokaryotic translation

B. Eukaryotic translation

C. Prokaryotic transcription

D. Eukaryotic transcription

Answer: A

Watch Video Solution

102. Streptomyces is produced by:

A. Streptomyces griseus

B. Streptomyces nodouse

C. Streptomyces venezuelae

D. Streptomyces aureofaciens

Answer: A

Watch Video Solution

103. Streptomyic was first isolated by:

A. Waksman

B. Robert Koch

C. Leeuwenhoek

D. Alexander Fleming

Answer: A

Watch Video Solution

104. Streptomycin is effective against bacteria

A. Gram-positive

B. Gram-negative

C. Both of these

D. None of these

Answer: C

Watch Video Solution

105. Streptomyces fradiae produces:

A. Neomycin

B. Terramycin

C. Aureomycin

D. Erythromycin

Answer: A

Watch Video Solution

106. Which of the antibiotics is fungal in origin?

A. Penicillum

B. Griseofulvin

C. Cephalosporin

D. All of these

Answer: D

Watch Video Solution

107. Bacterial resistance to antibiotic ampicillin can be due to presence of

A. ampicillinase

B. β-lactamase

C. phosphotransferase

D. penicillinase

Answer: A

Watch Video Solution

108. The prerequisties for biotechnological production of antibiotics is

A. to seacrh an antibiotic producing microorgansim

B. to join antibiotic gene with E.coli plasmid

C. to isolate antibiotic gene

D. all of the above

Answer: D

Watch Video Solution

109. Cycloheximide (actidione) was isolated from:

A. Streptomyces griseus

B. Xanthomonas citri

C. Streptomyces scabies

D. Erwinia amylovora

Answer: A

Watch Video Solution

110. Vitamin B_2 is found essentially in:

A. yeast

B. cereals

C. vegetables

D. all of these

Answer: D

Watch Video Solution

111. The vitamin whos content increases following the conversion of milk into curd by lactic acid bacteria is

A. Vitamin C

B. Vitamin D

C. Vitmain B_{12}

D. Vitamin E

Answer: C

Watch Video Solution

112. Which is source of Vitamin B_{12}

A. Asbhya gossypii

B. Propionibacterium

C. Pseudomonas denitrificans

D. None of the above

Answer: A

Watch Video Solution

113. Vitamin B_{12} is produced directly during the course of fementation by

A. Ashbya gossypii

B. Rhizopus stolonifer

C. Propionibacterium

D. Saccharomyces cerevisiae

Answer: C

Watch Video Solution

114. The bacteria used in the production of Vitamin B_{12}:

A. Propionibacterium frendenreichii

B. Bacillus magathenium

C. Strepomyces olivaceus

D. All of the above

Answer: D

Watch Video Solution

115. Yeast yield:

A. Riboflavin

B. Vitamin B_{12}

C. Tocopherol

D. Ascorbic acid

Answer: A

Watch Video Solution

116. Stirred-tank biroreactors have been designed for

A. purification of the product

B. addition of preservatives to the product

C. ensuring anaerobic conditions in the culture vessel

D. availablity of oxgyen throughout the process

Answer: D

Watch Video Solution

117. The first organic acid to be produced industrially by fermentation was :

A. Citric acid

B. Lactic acid

C. Acetic acid

D. Aspergillus

Answer: B

Watch Video Solution

118. Acetobacter acid ferementation is brought about by :

A. Nitrobacter

B. Rhizopus

C. Acetobacter

D. Aspergillus

Answer: C

Watch Video Solution

119. Which is maitained for optimum production of vinegar

A. Anaerobic condition

B. temperature at 65° C

C. Aerobic condition

D. Microaerophilic condition

Answer: C

Watch Video Solution

120. Which one of the following pairs is wrongly matched

A. Yeast-Ethanol

B. Streptomyces-Antibiotics

C. Coliforms-Vinegar

D. Methanogens-Gobar gas

Answer: C

Watch Video Solution

121. Match the following list of bacteria and their commercially important products

	Bacterium		Product
A.	Aspergillus niger	i.	Lactic acid
B.	Acetobacter aceti	ii.	Butyric acid
C.	Clostridium butylicum	iii.	Acetic acid
D.	Lactobacillus	iv.	Citric acid

A. A-2, B-3,C-4,D-1

B. A-2,B-4,C-3,D-1

C. A-4,B-3,C-2,D-1

D. A-4,B-3,C-3,D-2

Answer: C

Watch Video Solution

122. Sour taste of vinegar in due to:

A. Lactic acid

B. Acetic acid

C. Butyric acid

D. Fumaric acid

Answer: B

Watch Video Solution

123. Vineger is prepared from alcohol with the help of :

A. Rhizobium

B. Acetobacter

C. Azotobacter

D. Lactobacillus

Answer: B

Watch Video Solution

124. Which of the following organisc acids was prodcuded by fermentatio

A. Citric acid

B. Oxalic acid

C. Lactic acid

D. Propionic acid

Answer: C

Watch Video Solution

125. Match the microbes in column I with their commercial /industrial products in columnII and choose the correct answer

Column I		Column II	
A.	*Aspergillus niger*	1.	Ethanol
B.	*Clostridium butylicum*	2.	Stains
C.	*Saccharomyces cerevisiae*	3.	Citric acid
D.	*Trichoderma polysporum*	4.	Butyric acid
E.	*Monascus purpureus*	5.	Cyclosporin A

A. A-3,B-4,C-1,D-5,E-2

B. A-4,B-5,C-2,D-1,E-3

C. A-5,B-4,C-1,D-2,E-3

D. A-3,B-4,C-5,D-1,E-2

Answer: A

Watch Video Solution

126. Aspergillus niger is used for for commerical and industrial production of :

A. Citric acid

B. Lactic acid

C. Acetic acid

D. butyric acid

Answer: A

Watch Video Solution

127. Substance with core structure made up of one 5-carbon and three 6-carbon rings are:

A. Steroids

B. Alcohols

C. Neutral fats

D. Organic acids

Answer: A

Watch Video Solution

128. The conversion of cortexolone to prednisolone involves:

A. hydroxylation

B. dehydrogentation

C. hydroxylation , dehydrogenation

D. dehydrogenation , hydroxylation

Answer: C

Watch Video Solution

129. Utility of fungi for steroid conversion was demonstracted by:

A. Paven and Persoz

B. Murray and Peterson

C. Milstein and Kohler

D. Waksman and Woodruff

Answer: B

Watch Video Solution

130. Name the fungus used for steroid synthesis

A. Aspergillus oryzae

B. Torulopsis utilis

C. Rhizopus stolonifer

D. activated crassa

Answer: C

Watch Video Solution

131. Wastewater treatment generates a large quantity of sludge, which can be treated by

A. digesters

B. chemicals

C. oxidation pond

D. activated sludge

Answer: C

Watch Video Solution

132. The primary treatement of wastewater involves the removal of

A. stable particles

B. toxic substance

C. harmful bacteria

D. activated impurities

Answer: A

Watch Video Solution

133. BOD of waste water is estimated by measuring the amount of

A. oxygen evolution

B. total organic matter

C. oxygen consumption

D. biodegradable organic matter

Answer: C

Watch Video Solution

134. What would happen if oxygen availability to activated sludge flocs is reduced?

A. It will slow down the rate of degradation of organic matter

B. The centre of flocs will bocome anoxic , which would cause death of bacteria and eventually breakage of flocs

C. Flocs would increase in size as anaerobic bacteria would grow around flocs

D. Protozoa would grow in large numbers

Answer: B

Watch Video Solution

135. Activated sludge should have the ability to settle quickly so that it can :

A. be rapidly pumped back from sedimentation tank to aeration tank

B. absorb pathogenic bacteria present in waste water while sinking to the bottom of the settling tank

C. be discarded and anaerobically digested

D. absorb colloidal oraganic matter

Answer: A

Watch Video Solution

136. Sewage treatment process in which part of decomposer bacteria is recycled into starting of the process is called :

A. Cyclic treatment

B. Primary treatment

C. Tertiary treatment

D. Activated sludge treatment

Answer: D

Watch Video Solution

137. Select the correct statement from the following

A. Biogas is produced by the activity of aerobic bacteria on animal waste

B. Methanobacterium is an aerobic bacterium found in rumen of cattle.

C. Bigas, commonly called gobar gas, is pure methane

D. Activated sludge-sediment in settlement tanks of sewage treatment plant is a rich source of aerobic bacteria

Answer: D

Watch Video Solution

138. Secondary sewage treatment is mainly a

A. biological process

B. physical process

C. mechanical process

D. chemical process

Answer: A

Watch Video Solution

139. Which of the following is mainly produced by the activity of anaerobic bacteria on sewage

A. Marsh gas

B. Laughing gas

C. Propane

D. Mustard gas

Answer: A

Watch Video Solution

140. Mathanogens do not produce

A. oxygen

B. methane

C. carbon dioxide

D. hydrogen sulfide

Answer: A

Watch Video Solution

141. Methanogenic bacteria are not found in

A. rumen of cattle

B. gobar gas plant

C. activated sludge

D. bottom of waterlogged paddy fields

Answer: C

Watch Video Solution

142. The technology of biogas production from cow dung was developed in india largely due to the efforts of

A. Gas Authority of India

B. Indian Oil Corporation

C. Oil and Natural Gas Commission

D. Indian Agricultural Research Institute and Khadi and village Industries Commission

Answer: D

Watch Video Solution

143. The residue left after methane production from cattle dung is

A. burnt

B. used as manure

C. buried in land fills

D. used in civil construction

Answer: B

Watch Video Solution

144. The free-living fungus Trichoderma can be used for

A. killing insects

B. biological control of plant diseases

C. controlling butterfly caterpillars

D. producing antibiotics

Answer: B

Watch Video Solution

145. Match the microbal products listed under column I with the realted microbes given under column II. Choose the appropriate option from the

given choices.

Column I		Column II	
(A)	Citric acid	p	Methanobacterium
(B)	Cyclosporin A	q	*Monascus purpureus*
(C)	Statin	r	*Aspergillus niger*
(D)	Gobar gas	s	*Trichoderma polysporum*
		t	*Clostridium butylicum*

A. $A - q, B - s, C - t, D - t$

B. $A - r, B - s, C - q, D - p$

C. $A - r, B - s, C - q, D - t$

D. $A - t, B - q, C - s, D - r$

Answer: B

Watch Video Solution

146. Mycorrhiza does nto help the host plant in

A. Enhancing its phosphorus uptake capacity

B. Increasing its tolerance to drought

C. Enhancing its resisitance to root pathogens

D. Increasing its resistance to insects

Answer: D

Watch Video Solution

147. Which one of the following is not a nitrogen-fixing organism ?

A. Nostoc

B. Anabaena

C. Azotobacter

D. Pseudomonas

Answer: D

Watch Video Solution

148. An organism used as biofertilizer for raising soyabean crop is

Or

Most famous nitrogen fixing bacterium/biofertilizer is

A. Nostoc

B. Azotobacter

C. Azospirillum

D. Rhizobium

Answer: D

Watch Video Solution

149. The most abundant prokaryotes helpful to humans in making curd from milk and in production of antibiotics are the ones categorised as

A. cyanobacteria

B. archaebacteria

C. heterotrophic bacteria

D. chemosynthetic autotrophs

Answer: C

Watch Video Solution

150. In gobar gas, the maximum amouts is that of

Or

Biogas produced through anaerobic fermentation of organic material is primarily

A. Butane

B. Methane

C. Propane

D. Carbon dioxide

Answer: B

Watch Video Solution

151. Domestic sewage of large cities

A. when treat in STPs does not really require the aeration step as the sewage contains adquate oxygen

B. has very high amounts of suspended soluble and dissolved salts

C. has a high BOD as it contains both aerobic and bacteria

D. is processed by aerobic and then anaerobic bacteria in the secondary treatment in Sewage Treatment Plants (STPs)

Answer: D

Watch Video Solution

152. Match the items in column I with those in column II and choose the correct answer

	Column I		Column II
$P.$	Blue green algae as biofertilizers	$i.$	Ectommycorrhiza
$Q.$	Fungi as biofertilizers	$ii.$	Thiobacillus sp
$R.$	Free living nitrogen fixing bacteria	$iii.$	Anabaena sp
$S.$	Phosphate solubilizing bacteria	$iv.$	Clostridium sp
		$v.$	Azospirillum sp

A. P-iii,Q-I,R-v,S-ii

B. P-v,Q-I,R-ii,S-iv

C. P-v,Q-iv,R-I,S-ii

D. P-iv,Q-I,R-v,S-ii

Answer: A

Watch Video Solution

153. A good producer of citric acid is :

A. Clostridium

B. Aspergillus

C. Pseudomonas

D. Saccharomyces

Answer: B

Watch Video Solution

154. During sewage treatment, biogases are produced which includes :

A. methane , oxygen, hydrogen , sulphide

B. hydrogen, sulphide, nitrogen, methane

C. methane , hydrogen, sulphide, carbon dioxide

D. hydrogen sulphide, methane , sulphur dioxide

Answer: C

Watch Video Solution

155. In anaerobic sludge digestion, during secondary treatment of sewage, biogas is produced which is a mixture of :

A. methane and H_2S

B. (a) and CO_2

C. (a),(b) and CO

D. (a),(b),(c) and ethane

Answer: B

Watch Video Solution

156. A biofertiliser is :

A. a cyanobacterium like Anabaena species living in cavities of Azolla leaves.

B. symbiotic association like Azotobacter which fixes atmospheric nitrogen

C. green manure in which a quickly growing crop is cultivated and ploughed under.

D. green manure in which a quickly growing crop is cultivated and ploughed under.

Answer: A

Watch Video Solution

157. What gases are produced in anaerobic sludge digestres

A. Methane and CO_2 only

B. Hydrogen sulphide and CO_2

C. Methane, hydrogen sulphide and O_2

D. Methane, hydrogen sulphide and CO_2

Answer: D

Watch Video Solution

158. Bioreactors are useful in

A. separation and purification of a product

B. processing of large volumes of culture

C. isolation of genetic material

D. none of these

Answer: B

Watch Video Solution

159. Viruses of genus Nucleopolyhedrovirus are employed as

A. antibiotics

B. gobar gas producers

C. biological sludge digesters

D. atmospheric nitrogen fixing agents

Answer: C

Watch Video Solution

160. Ernest chain and Howared Florey's contribution was

A. discovery of streptokinase

B. isolating the bacterial plasmid

C. dicovery of the DNA sequencer

D. establishing the potenial of penicillin as an effective antibiotic

Answer: D

Watch Video Solution

161. Microorganism used for commercial production of aceti acid is

A. Acetobacter

B. Aspergillus niger

C. Clostridium butylicum

D. Saccharomyces cerevisiae

Answer: A

Watch Video Solution

162. Bacillus thuringiensis (Bt) strains have been used for designing novel:

A. bio-fertilizers

B. bio-insecticidal plants

C. bio-mineralization process

D. bio-metallurigical techniques

Answer: B

Watch Video Solution

163. Floc is _____.

A. a mesh-like structure formed by the association of bacteria and fungal filaments in sewage treatment

B. the effluent in primary treatment tank obtained during sewage treatment

C. the primary sludge produced in sewage treatment

D. a type of biofortified food

Answer: A

Watch Video Solution

164. Roquefort Cheese' is ripened by using

A. fungus

B. bacterium

C. type of yeast

D. cyanobacteria

Answer: A

Watch Video Solution

165. Yeast is used for commerical production of :

A. methanol

B. ethanol

C. butanol

D. citric acid

Answer: B

Watch Video Solution

166. Microbe yielding 'clot buster' for myocardial infarction is

A. Streptococcus

B. Penicillium notatum

C. Acetobacter aceti

D. Clostridium butylicum

Answer: A

Watch Video Solution

167. Blood cholesterol lowering statins are obtained from

A. Acetobacter aceti

B. Monascus purpureus

C. Clostridium butylicum

D. Trichoderma polysporum

Answer: B

Watch Video Solution

168. Which of the antibiotics is not produced by one of the Monera (Streptomyces)?

A. Pencillin

B. Tetramycin

C. Streptomuycin

D. Erythromycin

Answer: A

Watch Video Solution

169. The process of conversion of nitrogen to ammonia by the microbes is described as:

A. nitrification

B. denitrification

C. nitrogen fixation

D. Haber's process

Answer: C

Watch Video Solution

170. A microbial biocontrol agent that can be used to control butterfly caterpillars is

A. Lactobacillus

B. Saccharomyces

C. Cyanobacteria

D. Bacillus thuringiensis

Answer: D

Watch Video Solution

171. During waste water treatment, trickling filter is used for :

A. tertiary treatment

B. Primary treatment

C. secondary aerobic treatment

D. secondary anaerobic treatment

Answer: C

Watch Video Solution

172. Which one of the following organsims is not used as biocontrol agent ?

A. Bacillus subtilis

B. Bacillus sphaericus

C. Trichoderma viride

D. Bacillus thuringiensis

Answer: A

Watch Video Solution

173. Yeast is used in the production of

A. Cheese and butter

B. bread and beer

C. citric acid and lactic acid

D. lipase and pectinase

Answer: B

Watch Video Solution

174. During sewage treatment, biogases are produced which includes :

A. methane , oxygen, hydrogen , sulphide

B. hydrogen, sulphide, nitrogen, methane

C. Methane, hydrogen sulphide and carbon dioxide

D. hydrogen, sulphide, methane, sulphur oxide

Answer: C

Watch Video Solution

175. During Biogas production acetic acid is transformed into the final product by the enzymes of

A. Clostridium

B. Pseudomonas

C. Penicillium

D. Methanobacillus

Answer: D

Watch Video Solution

176. The initial step in preparation of beer is

A. malting

B. distillation

C. clarification

D. carbonxylation

Answer: A

Watch Video Solution

177. The clot formation can be prevented by treatmet with _____ in gene therapy:

A. Dnase

B. TPA

C. TGF-B

D. Recombinant vaccine

Answer: B

Watch Video Solution

178. Match the following list of microbes and their importance

(A)	*Saccharomyces cerevisiae*	(i)	Production of immunosuppressive agents
(B)	*Monascus purpureus*	(ii)	Ripening of swiss cheese
(C)	*Trichoderma polysporum*	(iii)	Commerical production of ethanol
(C)	*Propionibacterium sharmanii*	(iv)	Production of blood cholesterol lowering agents

A. $\begin{matrix}(A) & (B) & (C) & (D)\\ (iv) & (iii) & (ii) & (i)\end{matrix}$

B. $\begin{matrix}(A) & (B) & (C) & (D)\\ (iv) & (ii) & (i) & (iii)\end{matrix}$

C. (A) (B) (C) (D)
(iii) (iv) (i) (ii)

D. (A) (B) (C) (D)
(iii) (i) (iv) (ii)

Answer: C

Watch Video Solution

179. Which antibiotic is not produced by streptomyces

A. Bacitracin

B. Chloromycetin

C. Nystatin

D. Amphotericin

Answer: A

Watch Video Solution

180. Flooding of the field controls:

A. Fungi

B. Bacteria

C. Viruses

D. Nematodes

Answer: D

Watch Video Solution

181. The primitive prokaryotes responsibel for the production of biogas from the dung of ruminant animals include

A. Eubacteria

B. Halophiles

C. Methanogens

D. Thermoacidophiles

Answer: C

Watch Video Solution

182. Which of the following is wrongly matched in the given table ?

A.

Microbe	Product	Application
Streptococcus	Streptokinase	removal of clot from blood vessel

B.

Microbe	Product	Application
Clostridium butylicum	Lipase	removal of stains

C.

Microbe	Product	Application
Trichoderma polysporum	Cyclosporin A	immuno-suppressive dru

D.

Microbe	Product	Application
Monascus purpureus	Stains	lowering of blood cholesterol

Answer: B

Watch Video Solution

183. Match column I with column II and select the correct option from the given codes

	Column I		Column II
A.	Aspergilius niger	(i)	Ethanol
B.	Clostridium butylicm	(ii)	Statins
C.	Saccharomyces cerevisiae	(iii)	Citric acid
D.	Trichoderma polysporum	(iv)	Butyric acid
E.	Monascus purpureus	(v)	Cyclosporin A

A. $\begin{matrix} A & B & C & D \\ \text{(iii)} & \text{(i)} & \text{(iv)} & \text{(ii)} \end{matrix}$

B. $\begin{matrix} A & B & C & D \\ \text{(i)} & \text{(iv)} & \text{(ii)} & \text{(iii)} \end{matrix}$

C. $\begin{matrix} A & B & C & D \\ \text{(iii)} & \text{(iv)} & \text{(i)} & \text{(ii)} \end{matrix}$

D. $\begin{matrix} A & B & C & D \\ \text{(iii)} & \text{(i)} & \text{(ii)} & \text{(iv)} \end{matrix}$

Answer: A

Watch Video Solution

Examplar Problems

1. The vitamin whos content increases following the conversion of milk into curd by lactic acid bacteria is

A. Vitamin C

B. Vitamin D

C. Vitmain B_{12}

D. Vitamin E

Answer: C

Watch Video Solution

2. Wastewater treatment generates a large quantity of sludge, which can be treated by

A. digesters

B. activated sludge

C. chemicals

D. oxidation pond

Answer: D

Watch Video Solution

3. Methanogenic bacteria are not found in

A. rumen of cattle

B. gobar gas plant

C. activated sludge

D. bottom of waterlogged paddy fields

Answer: C

Watch Video Solution

4. Match the following list of bacteria and their commercially important products.

Bacterium	Product
(i) Aspergillus niger	(A) Lactic acid
(ii) Acetobacter aceti	(B) Butyric acid
(iii) Clostridium butylicum	(C) Acetic acid
(iv) Lactobacillus	(D) Citric acid

Choose the correct match.

A. i-d,ii-c,iii-b,iv-a

B. i-b,ii-c,iii-d,iv-a

C. i-b,ii-d,iii-c,iv-a

D. i-d,ii-a,iii-c,iv-b

Answer: A

Watch Video Solution

5. Match the following list of bioactive substance and their roles

	Bioactive		Role
$A.$	Statin	$i.$	Removal of oil stains
$B.$	Cyclosporin A	$ii.$	Removal of clots from blood vessels
$C.$	Streptokinase	$iii.$	Lowering of blood chloesteroal
$D.$	Lipase	$iv.$	Immuno-suppressive agent

Choose the correct match

A. i-b,ii-c,iii-a,iv-d

B. i-d,ii-b,iii-a,iv-c

C. i-d,ii-a,iii-d,iv-c

D. i-c,ii-d,iii-b,iv-a

Answer: D

Watch Video Solution

6. The primary treatement of wastewater involves the removal of

A. stable particles

B. toxic substance

C. harmful bacteria

D. dissolved impurities

Answer: A

Watch Video Solution

7. BOD of waste water is estimated by measuring the amount of

A. oxygen evolution

B. total organic matter

C. oxygen consumption

D. biodegradable organic matter

Answer: C

Watch Video Solution

8. Which one of the following alcoholic drinks is produced without distillation ?

A. Rum

B. Wine

C. Whisky

D. Brandy

Answer: B

Watch Video Solution

9. The technology of biogas production from cow dung was developed in india largely due to the efforts of

A. Indian Oil Corporation

B. Gas Authority of India

C. Oil and Natural Gas Commission

D. Indian Agricultural Research Institute and Khadi and village Industries Commission

Answer: D

Watch Video Solution

10. The free-living fungus Trichoderma can be used for

A. biological control of plant diseases

B. controlling butterfly caterpillars

C. producing antibiotics

D. killing insects

Answer: A

Watch Video Solution

11. What would happen if oxygen availability to activated sludge flocs is reduced ?

A. It will slow down the rate of degradation of organic matter

B. The centre of flocs will bocome anoxic , which would cause death of bacteria and eventually breakage of flocs

C. Flocs would increase in size as anaerobic bacteria would grow around flocs

D. Protozoa would grow in large numbers

Answer: B

Watch Video Solution

12. Mycorrhiza does nto help the host plant in

A. Increasing its tolerance to drought

B. Increasing its resistance to insects

C. Enhancing its phosphorus uptake capacity

D. Enhancing its resisitance to root pathogens

Answer: B

Watch Video Solution

13. Which one of the following is not a nitrogen-fixing organism ?

A. Nostoc

B. Anabaena

C. Azotobacter

D. Pseudomonas

Answer: D

Watch Video Solution

14. Big holes in Swiss cheese are made by a

A. machine

B. bacterium that produces methane gas

C. bacterium producing a large amount of carbon dioxide

D. fungus that releases a lot a gases during its metabolic activities

Answer: C

Watch Video Solution

15. The residue left after methane production from cattle dung is

A. burnt

B. used as manure

C. burried in land fills

D. used in civil construction

Answer: B

Watch Video Solution

16. Mathanogens do not produce

A. oxygen

B. methane

C. carbon dioxide

D. hydrogen sulphide

Answer: A

Watch Video Solution

17. Activated sludge should have the ability to settle quickly so that it can

A. absorb pathogenic bacteria present in waste water while sinking to the bottom of the settling tank.

B. be rapidly pumbed back from sedimentation tank to aeration tank.

C. be discarded and anaerobically digested

D. absorb colloidal oraganic matter

Answer: B

Watch Video Solution

18. Match the items in column 'A' and column 'B' and choose correct answer.

$Column A$	$Column B$
(i) Lady bird	(A) Methanobacterium
(ii) Mycorrhiza	(B) Trichoderma
(iii) Biological control	(C) Aphids
(iv) Biogas	(D) Glomus

The correct answer is

A. i-b,ii-d,iii-c,iv-a

B. i-d,ii-a,iii-b,iv-c

C. i-c,ii-d,iii-b,iv-a

D. i-c,ii-b,iii-a,iv-d

Answer: C

Watch Video Solution

19. Which one is the most important role of microorganism for the wellbeing of humans?

A. Sewage treatment

B. Production of methane

C. Biological control of plant disease

D. Conversion of milk to curd

Answer: D

Watch Video Solution

Question Based On Ncert Text

1. Which one of the following statements about microbes is wrong?

A. All microbes are harmfull, they cause different serious diseases.

B. Microbes like bacteria and many fungi can be grown on nutritive media to form colonies.

C. Microbes are the major components of biological systems on earth.

D. Microbes are used to ferment fish, soyabean and bamboo shoots to make foods.

Answer: A

Watch Video Solution

2. Select the correct option:

(A)	Propionibacterium	(i)	Citric acid
(B)	Trichoderma polysporum	(ii)	Roquefort cheese
(C)	Aspergillus niger	(iii)	Swiss cheese
(D)	Fungi	(iv)	Cyclosporin A

A. (A) (iv) (B) (i) (C) (ii) (D) (iii)

B. (A) (iii) (B) (i) (C) (iv) (D) (ii)

C. (A) (iii) (B) (ii) (C) (iv) (D) (i)

D. (A) (iii) (B) (iv) (C) (i) (D) (ii)

Answer: D

Watch Video Solution

3. Diagram of a typical biogas plant is given below. Identify B,C and D:

A. A-Dung , Water, B-Digester, C-Sludge, D-Gas holder

B. A-Digester, B-Dung-water,C-Sludge , D-Gas holder

C. A-Drug, Water , B-Sludge , C-Digester , D-Gas holder

D. A-Gas holder, B-Dung, Water,C-Digester , D-Sludge

Answer: A

View Text Solution

4. Which of the following statement/s is/are wrong?

I. The puffed-up appearance of dough is due to the production of CO_2 gas.

II.LAB produce acids that coagulate and partially digest the milk proteins.

III. The yeast Saccharomyces cerevisiae is used for break-making.

IV. The large holes in 'Swiss cheese' are due to production of a large amount of CO_2 by Propionibacterium sharmanii.

V. The 'Roquefort cheese' are ripened by growing a specific bacterium on them.

A. II and IV only

B. V only

C. III and V only

D. I, II and III only

Answer: B

Watch Video Solution

5. Match the type of bacteria listed in column I with their activity given in column II. Choose the correct combination of alphabets of the two columns

	Column-I (Types of bacterial)		Column-II (Activity)
$A.$	Steptomyces	$p.$	Food poisoning
$B.$	Rhizobium	$q.$	Source of antibiotics
$C.$	Nitrosomonas	$r.$	Nirogen fixation
$D.$	Acetobacter	$s.$	Nitrification
		$t.$	Vinegar synthesis

A. (A) (B) (C) (D)
(ii) (i) (iv) (iii)

B. (A) (B) (C) (D)
(iv) (i) (ii) (iii)

C. (A) (B) (C) (D)
(i) (iii) (iv) (ii)

D.
(A)	(B)	(C)	(D)
(iii)	(ii)	(iv)	(i)

Answer: A

Watch Video Solution

6. Consider the following statements.

A. Cyclosporin A is used as an immunosuppressive agent in organ-transplant patients.

B. Wine and beer are produced by distillation whereas whisky, brandy and run are produced without distillation of the fermented both.

C. Streptomycin was the first antibiotic to be dicovered.

D. Cyclosporin A is produced by the fungus Trichoderma polysporum.

Of the above statements:

A. B and C are correct

B. B and D are correct

C. A and B are correct

D. A and D are correct

Answer: D

Watch Video Solution

7. Select the correct option:

(A)	Bt cotton	(i)	Saccharomyces	
(B)	Ethanol	(ii)	Biogas	
(C)	Dung	(iii)	Blood	cholesterol lowering agent
(D)	Statins	(iv)	Insect resistant plant	

A. (A) (B) (C) (D)
(ii) (i) (iv) (iii)

B. (A) (B) (C) (D)
(iv) (i) (ii) (iii)

C. (A) (B) (C) (D)
(i) (iii) (iv) (ii)

D. (A) (B) (C) (D)
(iv) (ii) (iii) (i)

Answer: B

Watch Video Solution

8. Read the following five statements (A to E) and select the option with all correct statements:

The greater the BOD of waste water, more is its polluting potential.

(B). Statins produced by the yeast Trichoderma polysporum act as blood - cholesterol lowering agents.

(C) Baculoviruses are pathohens that attack insects and other arthropods.

(D) The majority of baculoviruses used as biological control agents are in the genus Nucleopolyhedrovirus.

(E) Treatment of waste water is done by the autotrophic microbes naturally present in the sewage.

A. (A),(D) and (E)

B. (B),(C) and (E)

C. (A),(C) and (D)

D. (A),(B) and (D)

Answer: C

Watch Video Solution

9. Which of the following statement/s is/are wrong?

I. Drug can be used for generation of biogas, commonly called gobar gas.

II. Biofertilisers are organisms that enrich the nutrient quality of the soil.

III. Cyanobacteria are heterotrophic microbes widely distributed in aquatic and terrestrial environments.

IV. Many members of the genus Glomus form mycorrhiza.

V. Biogas produced by microbes is used as a source of energy in urban areas.

A. III and V only

B. I, II and III only

C. II and IV only

D. IV and V only

Answer: A

Watch Video Solution

Assertion Reason Type Questions

1. (A) : Botulism can be avoided by heating food before consumption.

(R) : The toxin is destroyed on exposure to temperature of $90^{\circ} C$ for ten minutes.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

2. (A): Typhoid fever is a viral disease.

(R) : It is caused by togavirus.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: D

Watch Video Solution

3. (A) : Cholera is mainly a water-borne diease

(R): The key treatment is the restoration of body's water balance.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: B

Watch Video Solution

4. (A): Anthrax is a common disease of cattle, sheep and goats.

(R) : Humans may acquire infection through contact with spore containing animals.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: B

Watch Video Solution

5. (A) : Bubonic plague is basically a blood disease.

(R): The bacteria multiply in the blood stream and localize in the lymph nodes.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

6. (A): Syphilis is a common veneral disease.

(R) : Infection may be acquired during sexual intercourse.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

7. (A): Koch's postulates cannnot be applied to M. leprae, the causative agent of leprosy.

(R) : Pathogen has not yet been cultivated in artificial laboratory medium.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

8. (A) : Trachoma is reported to the leading cause of blindness.

(R) : It is an infection of the conjunctive of the eye.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

9. (A) : Measles is a common chilhood disease caused by a DNA virus.

(R) : This disease affects throat and its main symptom is suffocation.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: D

Watch Video Solution

10. (A) : Yellow fever is haemorrhagic viral disease.

(R): Tiger mosquito, Aedes aegypti is the agent of its transmission.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: B

Watch Video Solution

11. (A) : HIV is a retrovirus.

(R) : It can synthesis DNA and RNA.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

12. (A) : Goat is a disease of joints.

(R): It is associated with inborn error of uric acid metabolism.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: B

Watch Video Solution

13. (A): Cancer incidence increases with age.

(R) : Oncogenes are epistatic to other genes of normal body functions.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution

14. (A) : Cancer cells divide giving rise to masses of cells called neoplasm.

(R) : These cells fail to exhibit contact inhibition.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

15. (A) : Breast cancer is the most common disease in women.

(R) : It is generally found in women under the age of 25 years.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution

16. (A) : Chickens posses innate immunity to anthrax.

(R) : Their high body temperature inhibits the growth of bacteria.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

17. (A) : Plama cells of out immune system are immoral.

(R): These cells are responsible for cell-mediated immunity.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: D

Watch Video Solution

18. (A) : Antibodies are chemically protein molecules.

(R): They are produced by lymphocytes.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: B

Watch Video Solution

19. (A):IgG is the most important long-acting antibody.

(R) : It plays a major role in allergic reaction.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution

20. (A) : IgA is known as the secretory antibody.

(R) : It is found in tears, saliva and colostrum.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

21. (A) : IgE is important in the allergic response.

(R) : It attaches to the surface of basophils and mast cells.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

22. (A) : Any substance that increase body temperature is called pyrogen.

(R): Aspirin in an antipyretic drug which brings down fever.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: B

Watch Video Solution

23. (A) : Allergy is an inappropriate over reaction of immune system.

(R) : It is treated with drugs that cause vasodilation.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution

24. (A) : Hashimoto's disease is an example of auto-immune disease.

(R) : This disease is due to the destruction of adrenal gland.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution

25. (A) : Cyclosporine is an immunosuppressive drug.

(R) : it inhibits the activity of helper T-cells.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

26. (A) : The corneal grafts have a much better chance of success.

(R) : The healthy cornea has no blood supply and less access to WBCs.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

27. (A) : Amphetamine is a systhetic stimulant of CNS.

(R) : It is also used to relieve nasal congestion .

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: B

Watch Video Solution

28. (A) : Benzopyrene is a cancer inducing hydrocarbon.

(R): It si found in coaltar and tobacco smoke.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: B

Watch Video Solution

29. (A) : Tobacco smoke is injurious to a pregnant woman.

(R) : Nicotine causes retardation of the growth of foetus.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

30. (A) : The alcohol acts on the CNS as a stimulant.

(R) : It increases the activity of brain thereby increasing anxiety and tension.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: D

Watch Video Solution

31. (A) : LSD is one of the most dangerous hallucinogens of modern times.

(R) : It is produced by the Indian hemp plant Cannabis sativa.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution

32. (A) : Coconut milk is very rich and nutritive drink.

(R) : It is in fact a free nuclear endosperm.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

33. (A) : Rapid cell divison in an explant can be induced with cytokinin.

(R) : The mass of differentiated tissue produced is called callus.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution

34. (A) : Hybridization results in the production of heterozygous individuals showing heterosis.

(R) : Hybrids are always superior than their pure parents.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

35. (A): Mutations are always beneficial.

(R): Generally it produces offsprings with advantageous features.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: D

Watch Video Solution

36. (A) : Meristem culture is used to produce disease free plants.

Spirulina is the richest source of protein known.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: B

Watch Video Solution

37. (A) : Meristem culutre is used to produce disease free plants.

(R): The apical meristem is free from pathogen specially viruses.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

38. (A) : Animal husbandry deals with the care and breading of livestock.

(R) : It does not include poultry farming and fisheries.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution

39. (A) : Buffaloes are bette than cows.

(R) : They are more resistant to diseases, give more milk and live longer.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

40. (A) : Goat is also called 'poor mans's cow'.

(R) : It yields only a small quantity of milk.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

41. (A) : Donkeys cannot withstand adverse weather conditions.

(R) : They need much care and attention.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: D

Watch Video Solution

42. (A): Honey bees are colonial , social and polymorphic insects.

(R) : A colony of honeybee consists of four castes, viz. , drones , queens, workers and soldiers.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution

43. (A) : Microbes are very important component of life on Earth.

(R) : All microbes are pathogenic.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution

44. (A) : Cheese is one of the oldest food items.

(R) : It is prepared by the coagulation of casein.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: B

Watch Video Solution

45. (A) : Antibiotics are produced by bacteria and fungi.

(R) : These drugs are not effective against viruses.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: B

Watch Video Solution

46. (A) : Dextran is a microbially produced biopolymer.

(R) : It is used as a 'clot buster' for removing clots from blood vessels.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution

47. (A) : Sewage cannot be directly discharged into natural water bodies.

(R) : It contains large amount of pathogenic microbes.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

48. (A) : Biogas plants are usually build in rural areas.

Cattle dung is available in large quantities.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: A

Watch Video Solution

49. Assertion : Leguminous plants are best preferred for rotation of crops. Reason : They have root nodules which possess nitrogen fixing bacterium Clostridium

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the correct explanation of (A).

C. If (A) is true but (R) is false.

D. If both (A) and (R) are false.

Answer: C

Watch Video Solution