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III BSC [2015-2018]

SEMESTER V

CORE: INDUSTRIAL BIOTECHNOLOGY - 509A

Multiple Choice Questions.

1. _____ proposed Fermentation theory.

- A. Louis Pasteur.
- B. Moritz traube.
- C. Alexander Fleming.
- D. Edward Buchner.

ANSWER: B

2. Which one of the following is used as both carbon and nitrogen source?

- A. Corn steep liquor.
- B. Peanut meal.
- C. Soya meal.
- D. Urea.

ANSWER: A

3. The valve commonly used to regulate the flow of water/steam is _____.

- A. Plug.
- B. Ball.
- C. Pinch.
- D. Globe.

ANSWER: D

4. The rising tube and the down coming tubes are the features of _____ fermenter.

- A. Airlift.
- B. Packed bed.
- C. Tower.
- D. Bubble column.

ANSWER: A

5. _____ is the optimal pH for ethanol production using yeast.

- A. 2.
- B. 3.
- C. 4.
- D. 7.

ANSWER: C

6. Which among the following is widely used in bakers yeast production?

- A. *S. cerevisiae*.
- B. *S. uvarum*.
- C. *S. carlsbergensis*.
- D. *Candida* sp.

ANSWER: A

7. The most common carbon and energy source used for bakers yeast production is _____.

- A. Starch.

- B. Molasses.
- C. Soybean meal.
- D. Sulfite waste liquor.

ANSWER: B

8. Who coined the term antibiotic?

- A. Alexander Fleming.
- B. S. Waksman.
- C. Louis Pasteur.
- D. Edward Jenner.

ANSWER: D

9. Antibiotics are mostly obtained from _____.

- A. Fungi.
- B. Actinomycetes.
- C. Cyanobacteria.
- D. Both A and B.

ANSWER: C

10. Antibiotics tend to be _____ metabolites.

- A. Primary.
- B. Secondary.
- C. Tertiary.
- D. Quaternary.

ANSWER: B

11. Example for live viral vaccine is _____.

- A. Poliomyelitis.
- B. Influenza.
- C. Pertussis.
- D. Tetanus.

ANSWER: A

12. Which of the following is a toxoid?

- A. Pertussis.
- B. Hepatitis B.
- C. Rubella.
- D. Tetanus.

ANSWER: D

13. _____ is the example for killed bacterial vaccine.

- A. Tetanus.
- B. Measles.
- C. Pertussis.
- D. Diphtheria.

ANSWER: C

14. Starch could be hydrolyzed by _____.

- A. Sulphuric acid.
- B. Hydrochloric acid.
- C. Nitric acid.
- D. Sulphonic acid.

ANSWER: B

15. In the manufacture of glucose the first step liquefaction involves the conversion of starch to _____ maltodextrin.

- A. High Dextrose.
- B. Low Dextrose.

- C. Low Dextrose Equivalent.
- D. High Dextrose Equivalent.

ANSWER: C

16. The microbial enzyme capable of converting glucose directly to fructose was reported by _____.

- A. Richard.
- B. Richard and Kooi.
- C. Kooi and Michael.
- D. Albert and Michael.

ANSWER: B

17. Starch undergoes hydrolysis to produce anhydrous alcohol.

- A. Protein.
- B. Enzyme.
- C. Glucose.
- D. Maltose.

ANSWER: B

18. is the major feed stock for the production of fuel alcohol.

- A. Sweet potato.
- B. Corn starch.
- C. Starch.
- D. Sugar beet.

ANSWER: B

19. Starch hydrolysis produce glucose, which is converted by the yeast to _____.

- A. Pyruvic Acids.
- B. Ethanol.
- C. Phosphenol Pyruvate.
- D. Carbon Dioxide.

ANSWER: B

20. L- glutamate is used in food as _____

- A. Preservative.
- B. Antibiotic.
- C. Taste inducer.
- D. All the above

ANSWER: C

21. _____ method is used to produce acid in large scale.

- A. Hydrolysis.
- B. Fermentation.
- C. Enzymatic.
- D. Degradation.

ANSWER: B

22. Amino acids are used as _____.

- A. Foods.
- B. Additive.
- C. Soaps.
- D. Oils.

ANSWER: B

23. _____ amino acids are used in cosmetics.

- A. Alanine.
- B. Arginine.
- C. Proline.
- D. L- serine.

ANSWER: D

24. Regulation of proline biosynthesis is done by _____ inhibition.

- A. Feed Back.
- B. Enzyme.
- C. Metabolite.
- D. Co-Factor.

ANSWER: A

25. In repressor the amino acid product of the pathway binds to a specific repressor protein called as _____

- A. Repressor.
- B. Co Repressor.
- C. Enzyme Modulator.
- D. Promoters.

ANSWER: B

26. The parent strain which synthesizes all the amino acids called _____.

- A. Autotrophic.
- B. Prototrophic.
- C. Allotrophic.
- D. Auxotrophic.

ANSWER: B

27. _____ enzymes are the end product in the synthesis of unbranched pathway of *Serratia marcescens*.

- A. Alanine.
- B. Proline.
- C. Histidine.
- D. Arginine.

ANSWER: B

28. _____ is the member of pyruvate family.

- A. Valine.
- B. Methionin.
- C. Isoleucine.
- D. Tyrosine.

ANSWER: A

29. _____ belongs to the family of aromatic amino acids.

- A. Tyrosine.
- B. Valine.
- C. Threonine.
- D. Leucine.

ANSWER: A

30. _____ is used to remove the cell wall of bacteria.

- A. Pectinase.
- B. Amylase.
- C. Lysozyme.
- D. Lactase.

ANSWER: C

31. Aspartate, the starting material of the lysine pathway itself a product of a _____ pathway.

- A. Branched.
- B. Linear.
- C. Regulation.
- D. Degradation.

ANSWER: A

32. ___ is used as fungicide in agriculture.

- A. Polymyxin.
- B. Polyoxin D.
- C. Tetracycline.
- D. Chloramphenicol.

ANSWER: B

33. _____ belongs to penicillin.

- A. Methicillin.
- B. Kanamycin.
- C. Ribostamycin.
- D. Streptomycin.

ANSWER: A

34. Ampicillin and amoxicillin are _____ penicillins.

- A. Synthetic.
- B. Organic.
- C. Semisynthetic.
- D. Neutral.

ANSWER: C

35. E. coli exhibits resistant to _____.

- A. Ampicillin.
- B. Streptomycin.
- C. Ribostamycin.
- D. Methicillin.

ANSWER: A

36. The Candida species require fermentation equipment lined with plastic because they are extremely sensitive to _____.

- A. traces of cobalt
- B. traces of nickel
- C. traces of iron
- D. none of these

ANSWER: C

37. _____ is natural products produced by Streptomyces cattleya.

- A. Carbapenems.
- B. Thienamycin.
- C. Neomycin.
- D. Cefazolin.

ANSWER: B

38. γ -lactams is a _____ compound.

- A. Semi synthetic.
- B. Synthetic.
- C. Organic.
- D. Chemical.

ANSWER: B

39. Biosynthesis of penicillin and cephalosporin requires _____ and _____ amino acids.

- A. Valine, Cysteine.
- B. Arginine, Glycine.
- C. Glycine, Valine.
- D. Aniline, Cysteine.

ANSWER: A

40. _____ is an intermediate in the synthesis of lysine biosynthesis.

- A. Arginine.
- B. Lysine.
- C. Glycine.
- D. Methionine.

ANSWER: B

41. Lysine inhibits the production of _____ in fermentations. _____ inhibits the production of penicillin fermentation.

- A. Glycine.
- B. Lysine.
- C. Alanin.
- D. Acylampicillin.

ANSWER: B

42. Cycloserine may be isolated from the cultures of

- A. *S. orchidaceus*
- B. *S. lavendulae*
- C. *S. garyphalus*
- D. All of these

ANSWER: D

43. Primary treatment is the removal of _____ objects.

- A. Small.
- B. Large.
- C. Semisolids.
- D. Dirt.

ANSWER: B

44. Sediment solid particle are removed by _____ chamber.

- A. Grid.
- B. Filter.
- C. Semi Solids.
- D. Hollow.

ANSWER: A

45. The secondary treatment used to remove contaminants like _____.

- A. Bacteria and fungi.
- B. Virus.
- C. Protozoa.
- D. Plants.

ANSWER: A

46. What is the abbreviation of BOD?

- A. Biological Oxygen Demand.
- B. Biological Oxide Demand.
- C. Bacterial Oxygen Demand.
- D. Biological Oxygen Determination.

ANSWER: A

47. Filter and activated sludge process in _____ treatment process..

- A. Secondary.
- B. Tertiary.
- C. Anaerobic.
- D. Primary.

ANSWER: A

48. Chemoheterotrophs degrade many organic _____ containing substrates with the release of ammonia.

- A. Oxygen.
- B. Nitrogen.
- C. Phosphate.
- D. Nitrate.

ANSWER: B

49. The autotrophic nitrifying bacteria oxidize ammonia to nitrate by _____ .

- A. Nitrococcus.
- B. Nitrosomonas.
- C. Nitromonas.
- D. Nitricoccus.

ANSWER: B

50. The autotrophic nitrifying bacteria oxidase nitrite to nitrate by _____ .

- A. Nitrobacter.
- B. Nitrosomonas.
- C. Nitrococcus.
- D. Nitromonas.

ANSWER: A

51. Numerous bacterial species participate in the _____ forming stage.

- A. Acid.
- B. Oxygen.
- C. Basic.
- D. Phosphate.

ANSWER: A

52. _____ means conversion of monomeric compounds to higher organic acids.

- A. Acidogenesis .
- B. Methanogenesis.
- C. Monogenesis.
- D. Phaspogenesis.

ANSWER: A

53. _____ compounds are highly oxidized on thermodynamic grounds.

- A. Sodium.
- B. Chlorinated.
- C. Carbon.
- D. Sulphate.

ANSWER: B

54. The symbiotic relationship between two organisms of different species line in close and benefit each other is called as _____ .

- A. Mutualism.
- B. Commensalisms.
- C. Socialism.
- D. None of the above.

ANSWER: A

55. _____ is a product of toluene degradation which induces the expression of the genes of the pathway.

- A. Benzoate.
- B. Parathion.
- C. Biphenyl.
- D. Acetone.

ANSWER: A

56. Xyl genes encode _____ enzymes.

- A. Catabolic.

- B. Metabolic.
 - C. Anabolic.
 - D. Oxidative.
- ANSWER: A

57. Percolation of liquid through a pile of ore fragment to dissolve the metals in the ore is called _____.

- A. Opencut Mine.
- B. Smelting.
- C. Tailings.
- D. Dump Leaching.

ANSWER: D

58. The 95% ethanol is equivalent to _____.

- A. 190
- B. 110
- C. 170
- D. 120

ANSWER: A

59. _____ refuse material that results from washing or other treatment of ground ore.

- A. Tailings.
- B. Smelting.
- C. Dump leaching.
- D. Open cut mine.

ANSWER: A

60. _____ depends on the ability of various species of the acidophilic microorganisms.

- A. Indirect leaching.
- B. Direct leaching
- C. Dump leaching.
- D. Smelting.

ANSWER: A

61. _____ ore is obtained by open cut mining.

- A. Uranium.
- B. Copper.
- C. Iron.
- D. Silver.

ANSWER: B

62. _____ ore does not exist as a sulfide but as the oxide.

- A. Copper.
- B. Iron.
- C. Gold.
- D. Uranium.

ANSWER: D

63. Microorganism immobilizes metal ions by _____ process.

- A. Active and passive.
- B. Leaching.
- C. Dumping.
- D. Smelting.

ANSWER: A

64. Biosorption is a _____ process seen with both living and dead cells.

- A. Active.
- B. Passive.
- C. Neutral.

D. Negative.

ANSWER: B

65. The free ferrous ions react with hydrogen sulfate to form amorphous _____.

- A. Ferric sulfide.
- B. Ferrous sulfide.
- C. Ferric chloride.
- D. Ferrous sulphate.

ANSWER: B

66. _____ remove mercury from waste water.

- A. Dimethyl mercury.
- B. Methyl mercury.
- C. Methyl sulfide.
- D. Methyl and mercuric sulfide.

ANSWER: A

67. _____ bacteria use carbondioxide as a sole source of carbon.

- A. Sulphur containing.
- B. Nitrifying.
- C. Metal cleating.
- D. Metal adsorption.

ANSWER: B

68. _____ bacteria convert ammonia to nitrate.

- A. Nitrobacter.
- B. Nitrifying.
- C. Pseudomonas.
- D. Flavobacter.

ANSWER: A

69. Which of the following substance is employed to neutralize the lactic acid as it is produced (because lactic acid bacteria do not tolerate high concentrations of acid)?

- A. CaCO_3
- B. $(\text{NH}_4)_2 \text{HPO}_4$
- C. MgSO_4
- D. Na_2SO_4

ANSWER: A

70. _____ are inorganic materials that used as carriers.

- A. Alumina.
- B. Soil.
- C. Acids.
- D. Water.

ANSWER: A

71. Who insists that oil should be autoclaved?

- A. Fennel.
- B. Buell.
- C. Weston.
- D. Raper.

ANSWER: A

72. Storage at very low temperature or by using nitrogen source is called as _____ preservation.

- A. Lyophilized.
- B. Cryogenic.
- C. Glycerol.
- D. Mineral oil.

ANSWER: B

73. A culture containing a single type of microorganism is called _____.

- A. Mono culture.
- B. Pure culture.
- C. Auxenic culture.
- D. Slant culture.

ANSWER: B

74. Gel formations are formed by the interactions of _____.

- A. Carbon.
- B. Ion.
- C. Hydrogen.
- D. Carboxylic groups.

ANSWER: B

75. Which species from the followings is resistant to methyl tryptophan?

- A. Candida utilis
- B. E. coli
- C. B. subtilis
- D. Hansenula anomala

ANSWER: C

76. _____ is an example for bacterial polysaccharides.

- A. Citrobacter.
- B. Clavibacter.
- C. Azotobacter.
- D. Brevibacterium.

ANSWER: C

77. Koji process is also called as _____ fermentation.

- A. Liquid State
- B. Gas State
- C. Aqueous State.
- D. Solid State.

ANSWER: D

78. Allosteric enzyme has _____ site to bind the regulator.

- A. Regulatory.
- B. Substrate.
- C. Receptor.
- D. Repressor.

ANSWER: A

79. Conversion of glucose by _____ pathway yield ethanol and carbondioxide.

- A. Glycolysis.
- B. HMP.
- C. TCA.
- D. Glycogen.

ANSWER: A

80. The first residue from fermented substrate distillation is called as _____.

- A. Alcohol.
- B. Stillage.
- C. Liquid.
- D. Ethanol.

ANSWER: B

81. The conversion of glucose to ethanol and CO₂ is a _____ reaction.

- A. Endothermic.
- B. Exothermic.
- C. Mesothermic.
- D. Thermophilic.

ANSWER: B

82. _____ is used as a substrate in the production of ethanol by *Zymomonas melitis*.

- A. Xylose.
- B. Lactose.
- C. Fructose.
- D. Maltose.

ANSWER: A

83. _____ is a semisynthetic penicillin.

- A. Acylampicillins
- B. Cephalosporins.
- C. Streptomycin.
- D. Dibekacin.

ANSWER: A

84. In fermentation process usage of computer are introduced in _____ stage.

- A. I
- B. II
- C. III
- D. IV

ANSWER: D

85. In antibiotic production _____ is used as antifoam agent.

- A. Fats and oils.
- B. Carbohydrates
- C. Protein
- D. Amino acids.

ANSWER: A

86. Alcohol production from starch and raw sugar utilizes selected strains of _____.

- A. *Saccharomyces cerevisiae*
- B. *Candida pseudotropicalis*
- C. *Candida utilis*
- D. none of these

ANSWER: A

87. In _____ method, the enzyme producing culture is grown on the surface of a suitable semisolid substrate.

- A. Semisolid culture.
- B. Submerged culture.
- C. Auxenic culture.
- D. All the above.

ANSWER: A

88. _____ is being used as inducer in cellulose production.

- A. Isomaltose.
- B. Dextran.
- C. Sucrose.
- D. Cellulose.

ANSWER: D

89. _____ are widely used in chemical as well as fermentation industries.

- A. Enzymes.
- B. Brewery products.
- C. Industrial solvents.
- D. All the above.

ANSWER: C

90. _____ is the mixing process carries out in a fermenter.

- A. Agitation.
- B. Filtration.
- C. Purification.
- D. Sedimentation.

ANSWER: A

91. _____ acts by the end product binding to the enzyme at an allosteric site.

- A. Repression.
- B. Inhibition.
- C. Stimulation.
- D. Activation.

ANSWER: B

92. _____ occurs at the gene level by a derivative of the end product combing with the genome to prevent the transcription of mRNA.

- A. Inhibition
- B. Stimulation.
- C. Repression.
- D. Activation.

ANSWER: C

93. Fungal amylases using stationary culture with wheat bran utilizes _____.

- A. *A. oryzae*
- B. *A. niger*
- C. *A. flavus*
- D. *S. cerevisiae*

ANSWER: A

94. _____ sterilization is used in filtering the suspended particles.

- A. Filter.
- B. Heat.
- C. Detergent.
- D. Autoclave.

ANSWER: A

95. _____ fermentor is used to immobilize the cells.

- A. Packed glass bead.
- B. Air lift.
- C. Bubble column.
- D. None of the above.

ANSWER: A

96. *Aspergillus niger* is used in _____ fermentation.

- A. Citric acid.
- B. Carboxylic acid.
- C. Alcohol.
- D. Vitamin B12.

ANSWER: A

97. _____ is the basic ingredients in beer Production.

- A. Malted barley.

- B. Grapes.
 - C. Lemon.
 - D. Wheat.
- ANSWER: A

98. People who can't digest malt beer can use _____

- A. Wheat.
- B. Sorghum.
- C. Corn.
- D. Rice.

ANSWER: B

99. _____ is used to enhance beer production.

- A. Hops.
- B. Sugar
- C. Glucose.
- D. Sucrose.

ANSWER: A

100. ____ is responsible for fermentation of beer.

- A. Yeast.
- B. Bacteria.
- C. Fungi.
- D. None of above.

ANSWER: A

101. ____ metabolites the sugars extracted from grains, which produces alcohol and CO₂.

- A. Bacteria.
- B. Yeast.
- C. Fungi.
- D. Molds.

ANSWER: B

102. Malting step is used in _____ process.

- A. Baking.
- B. Brewing.
- C. Viniger fermentation.
- D. Canning.

ANSWER: B

103. _____ is the separation process of wort.

- A. Mashing.
- B. Milling.
- C. Lautering
- D. Malting

ANSWER: C

104. ____ is a process of combining mixture of milled grains.

- A. Mashing.
- B. Milling
- C. Malting
- D. Lautering

ANSWER: A

105. _____ is the method involved in beer production.

- A. Infusion
- B. Fission
- C. Lautering

D. None of the above

ANSWER: A

106. _____ F temperature is used to ferment beer.

A. 55-60

B. 60-65.

C. 70-75.

D. 80-85.

ANSWER: A

107. _____ causes contamination in beer production.

A. Aspergillus.

B. Pseudomonas.

C. Candida

D. Streptomyces.

ANSWER: B

108. _____ is made up of milk yeast.

A. Tartte

B. Sake

C. Kvass

D. Pombe

ANSWER: A

109. Which of the following organism produces enzyme taka diastase?

A. A. oryzae

B. B. subtilis

C. A. niger

D. S. cerevisiae

ANSWER: A

110. _____ is used to synthesis dextran.

A. Glucose

B. Sucrose

C. Maltose

D. Galactose

ANSWER: B

111. In food industry _____ is used as thickening agent.

A. Dextran

B. Xantham gum

C. Chymosin.

D. Trypsin.

ANSWER: A

112. Dextran was discovered by _____.

A. Louis Pasteur

B. Selman waksman.

C. Howard Horey.

D. Ernst chain.

ANSWER: A

113. _____ is used for blood clotting.

A. Xantham gum

B. Dextran.

C. Trypsin.

D. chymosin.

ANSWER: B

114. _____ is the use of micro-organism metabolism to remove pollutants.

- A. Biodegradation
- B. Bioremediation
- C. Precipitation
- D. Mineralization

ANSWER: B

115. ?- amylases are produced by _____ fermentation.

- A. Continuous
- B. Stirred
- C. Fed batch.
- D. Bubble column.

ANSWER: C

116. Xanthan gum is a _____ .

- A. Polysaccharide
- B. Monosaccharide
- C. Disaccharide
- D. Protein

ANSWER: A

117. _____ control concerted feed back inhibition.

- A. Kinases
- B. Synthase
- C. Aspartokinase
- D. Carboxylase

ANSWER: C

118. ___ mutant is used in production of lysine.

- A. Auxotrophic
- B. Heterotrophic
- C. Mesotrophic
- D. Autotrophic

ANSWER: A

119. _____ system is sensitive than surface systems in citric acid production.

- A. Submerged
- B. Decotation
- C. Upward
- D. Downward

ANSWER: A

120. _____ is used to separate the mycelium during citric acid production.

- A. Filtration
- B. Sedimentation
- C. Centrifugation
- D. Rotation

ANSWER: C

121. Which of the following is not an industrial product made by the fungus *Aspergillus niger*?

- A. Galactosidase
- B. Citric acid
- C. Gluconic acid
- D. Lysine

ANSWER: D

122. _____ reactor is used to produce citric acid.

- A. Bubble
 - B. Airlift
 - C. Tower
 - D. Loop jet.
- ANSWER: B

123. Fermentation carrying out in a brewing industry is _____ fermentation.

- A. Continous
 - B. Batch
 - C. Fed batch
 - D. Continous batch.
- ANSWER: B

124. _____ is a substrate for fungal single cell protein.

- A. Molasses
 - B. Sugar beet.
 - C. Corn steep liquor.
 - D. Starch.
- ANSWER: A

125. Algae are _____ growers.

- A. Very fast.
 - B. Very slow.
 - C. Relatively slow.
 - D. Rapid.
- ANSWER: C

126. _____ is an example of mushroom.

- A. Agaricus
 - B. Pharicus
 - C. Cereus
 - D. Proteases
- ANSWER: A

127. Acidification of milk is done by _____ acid.

- A. Citric
 - B. Lactic
 - C. Sulfuric
 - D. Acetic
- ANSWER: B

128. In cheese fermentation process, _____ is produced as a by product.

- A. Curd.
 - B. Whey.
 - C. Protein.
 - D. Raw milk.
- ANSWER: B

129. _____ vaccine contains purified antigens instead of whole organisms

- A. Viral
 - B. Subunit
 - C. Attenuated
 - D. Live-attenuated
- ANSWER: B

130. _____ vaccines are developed against capsulated bacteria.

- A. Subunit
- B. Viral

- C. Conjugate
 - D. Attenuated
- ANSWER: C

131. _____ is an example of live-attenuated vaccine

- A. HBV
- B. BVH
- C. Vaccinia virus.
- D. Haemophilus influenzae virus.

ANSWER: A

132. _____ polysaccharide capsules are used as vaccines.

- A. Plant
- B. Viral
- C. Bacterial
- D. Yeast

ANSWER: C

133. _____ are manufactured from bacterial toxins.

- A. Endotoxin
- B. Toxoids
- C. Ectotoxin
- D. Both a and b

ANSWER: B

134. _____ is responsible for the mottled blue-green appearance in cheese production.

- A. Penicillium
- B. Bacillus
- C. A. niger.
- D. S. cerevisae.

ANSWER: A

135. _____ is made from Lactococcus lactis.

- A. Gruyere
- B. Mozzarella
- C. Cheddar cheese
- D. Parmesan.

ANSWER: C

136. _____ method is used commercially for the production of baking strains of S. cerevisae

- A. Malting
- B. Mashing
- C. Skimming
- D. Milling

ANSWER: C

137. _____ is used in bioprocess.

- A. Alcohol
- B. Alkenes
- C. Methanol
- D. Ethanol

ANSWER: A

138. Optimum pH required for the development of yeast is _____.

- A. 4 to 6
- B. 6 to 7
- C. 4 to 5
- D. 7 to 8

ANSWER: B

139. An alternate process for carbonating beer is known as ____ process.

- A. Mashing
- B. Washing
- C. Krausening
- D. Milling

ANSWER: C

140. ____ beer is a heavy beer.

- A. Lager
- B. Bock
- C. Ace
- D. Porter

ANSWER: B

141. ____ is extracted from cereal based crops.

- A. Bioethanol
- B. Biodiesel
- C. Petrol
- D. Ethanol

ANSWER: B

142. Biodiesel is produced from ____ oil.

- A. Coconut oil.
- B. Palm oil.
- C. Olive oil.
- D. Sesame oil.

ANSWER: B

143. ____ is used as symbiotic nitrogen fixers.

- A. Azotobacter
- B. Rhizobium
- C. Blue green algae
- D. Azolla

ANSWER: B

144. Who discovered Azotobacter?

- A. Beijerinck
- B. Eli Lilly
- C. Howard Horey
- D. Ernst chain.

ANSWER: A

145. ____ has an inhibitory relationship with other organisms.

- A. Agonist
- B. Antagonist
- C. Symbiotic
- D. none of above

ANSWER: B

146. Who is called as father of fermentation?

- A. Robert Hook
- B. Lazaro Spallanzani.
- C. Theodar Schwann.
- D. Louis Pasteur.

ANSWER: D

147. _____ algae have 70% of hydrocarbons.

- A. Botyococcus.
- B. Azolla
- C. Anabenae
- D. Spirillum

ANSWER: B

148. Who demonstrated biogas?

- A. Volta
- B. Ghai and Thomas
- C. Harberland
- D. Potter

ANSWER: A

149. _____ split water by heat.

- A. Electrolysis
- B. Thermolysis
- C. Photolysis
- D. Thermochemical lysis

ANSWER: B

150. _____ is a source of hydrogen.

- A. Halobacteria
- B. Pseudomonas
- C. Bacillus
- D. Acetobacter

ANSWER: A

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