

M. Sc. Sem-3 (OLD COURSE)

Microbiology

MB-302 Pharmaceutical Microbiology and Fermentation technology

કુલ સમય :- ૬૦ મીનીટ

કુલ પ્રશ્નો : ૫૦

વિદ્યાર્થીએ ટીક કરવાના પ્રશ્નો : ૩૫

નોંધ : વિદ્યાર્થીએ માત્ર ૩૫ પ્રશ્નો જ ટીક કરવાના રહેશે. જો વધારે ટીક કરેલ હશે તો પ્રથમ ૩૫ પ્રશ્નો જ ગણતરીમાં લેવામાં આવશે.

- The most accurate method for microbial assay of antibiotics?
 - Physical assay
 - Chemical assay
 - Biological assay
 - Chemical and biological assay
- The international unit of penicillin is defined by how much amount of International Standard?
 - 1 mg
 - 0.262 μ g
 - 0.5988 μ g
 - 0.5 mg
- Inhibition zones are measured in tube-dilution method.
 - True
 - False
- plant pathogens are resistant against antibiotics.
 - True
 - False
- all microorganisms are avoided by
 - Sterilization
 - Disinfection
 - Surgical sterilization
 - Disinfection Sterilization
- Define Thermal death time
 - Time required to kill all cells at a given temperature
 - Temperature that kills all cells in a given time
 - Time and temperature needed to kill all cells
 - All of the above
- Pasteurization temperature is mostly
 - Above 150oC
 - Below 100oC
 - 110oC
 - None of these
- spores does not affected by one of the following method of sterilization
 - Drying
 - Hot air oven
 - Autoclave
 - None of these
- Autoclaving is performed at
 - Dry heat
 - Atmospheric pressure
 - 120°C
 - All of these
- Source of L-Lysine is
 - Corynebacterium glutamicum*
 - Clostridium botulinum*
 - Mycobacterium* sps
 - Pseudomonas*
- Which o the following method is used for sterilization of fermentation equipment
 - Radiation
 - Chemicals
 - Heating
 - All of these
- Interactions involved in binding a drug to the binding site of a protein.
 - Predominantly van der waals interactions
 - Predominantly ionic bonds
 - Predominantly hydrogen bonds
 - A combination of all of the above
- Find correct sentence to describe binding sites and binding regions?
 - a binding site is part of a binding region
 - a binding region is part of a binding site
 - a binding region is the same as a binding site
 - binding region is on a drug whereas a binding site is on a macromolecular target
- The term commonly describe an effect of drug similar to that of endogenous chemical messenger?
 - Agonist
 - Antagonist
 - partial agonist
 - inverse agonist
- Weight of bacteria in the digestive tract of a normal adult?
 - 2-4 pounds
 - 5 pounds
 - 3 kg
 - 198 grams
- Isolation of industrially important Antibiotic producing organisms done by
 - Disk plate method
 - Direct plate method
 - Serial dilution method
 - Crowded plate method
- A major component media for penicillin production is
 - Corn meal
 - Corn steep liquor
 - Cane steep liquor
 - None of these
- Thermo resistant bacteria are important in the preservation of foods by
 - Freezing
 - Canning
 - Chemicals
 - Irradiation
- Industrial Production of Vitamin-B12 is from
 - Propionibacterium* sps.
 - Pseudomonas* sps.
 - Both a and b
 - None of these
- Which of the following is the by-product during streptomycin production
 - Vitamin A
 - Proline
 - Vitamin B12
 - None of these
- For amylase production the micro organism required is
 - B. subtilis*
 - S. cereviceae*
 - A. nigar*
 - None of these
- The penicillin produced in large scale submerged fermentations are
 - Penicillin-A
 - Penicillin-D
 - Penicillin-G
 - None of these
- Antibiotics are used to treat infections by
 - Virus
 - Bacteria
 - All the microorganisms
 - None of the above

24. What is meant by antibiotic resistance?
 - a) It means our body has become resistant to the antibiotic
 - b) It means the bacteria have developed antibiotic resistance
 - c) Both (a) and (b)
 - d) None of the above
25. Cell-wall biosynthesis is inhibited by antibiotics by inhibiting the biosynthesis of which of the following?
 - a) Lipopolysaccharide
 - b) Cellulose
 - c) Peptidoglycan
 - d) proteins
26. Structurally all penicillins have only beta-lactam present in them.
 - a) True
 - b) False
27. Which of the following inhibits protein synthesis by combining with the 50S subunit ribosome?
 - a) Streptomycin
 - b) Tetracycline
 - c) Chloramphenicol
 - d) Penicillin
28. Which of the following is the most accurate method for microbial assay of antibiotics?
 - a) Physical assay
 - b) Chemical assay
 - c) Biological assay
 - d) Chemical and biological assay
29. The international unit of penicillin is defined by how much amount of International Standard?
 - a) 1 mg
 - b) 0.262 µg
 - c) 0.5988 µg
 - d) 0.5 mg
30. Which of the following is effective in the control of tuberculosis in humans?
 - a) Nitrofurans
 - b) Nalidixic Acid
 - c) Sibromycin
 - d) Isoniazid
31. Which of the following microorganism produces dextran?
 - a) *Bacillus polymyxa*
 - b) *Bacillus thuringiensis*
 - c) *Leuconostoc mesenteroides*
 - d) *Streptomyces olivaceus*
32. Microbial fermentation produces D optical isomers of the amino acids.
 - a) True
 - b) False
33. Which of the following raw materials are important for the production of glutamic acid?
 - a) Glycerol
 - b) corn-steep liquor
 - c) tryptone
 - d) biotin
34. Which of the following yeast is used for the production of riboflavin?
 - a) *Saccharomyces cerevisiae*
 - b) *Ermothecium ashbyi*
 - c) *Saccharomyces rouxii*
 - d) *Candida utilis*
35. Which of the following product utilizes whey as its raw material?
 - a) lactic acid
 - b) acetic acid
 - c) glutamic acid
 - d) lysine
36. Which of the following is not a desired characteristic of the organism to be used for industrial application?
 - a) should produce less amount of product
 - b) should be readily available
 - c) should grow rapidly
 - d) should be nonpathogenic
37. Industrial fermentation are performed in large tanks of capacity _____.
 - a) 100 gal
 - b) 1000 gal
 - c) 50,000 gal
 - d) 10,000 gal
38. Solvents and enzymes are found in which of the following categories of microbial products?
 - a) Pharmaceutical chemicals
 - b) Commercially valuable chemicals
 - c) Food supplements
 - d) Alcoholic beverages
39. The leavening or rising of dough is due to which of the following gases?
 - a) Oxygen
 - b) carbon dioxide
 - c) hydrogen
 - d) sulphur dioxide
40. Which of the following yeast can be used to produce microbial protein?
 - a) *Saccharomyces cerevisiae*
 - b) *Candida milleri*
 - c) *Ermothecium ashbyi*
 - d) *Candida utilis*
41. Which of the following product acts as a substrate for the production of citric acid?
 - a) Molasses
 - b) corn-steep liquor
 - c) barn
 - d) soyabean meal
42. Paper, glass beads can be used to immobilize enzymes.
 - a) True
 - b) False
43. *Rhizopus nigricans* produces which of the following products?
 - a) Citric acid
 - b) Fumaric acid
 - c) Gibberellic acid
 - d) Lactic acid
44. The protein content which is extracted from mixed or pure cultures of yeasts, bacteria, algae, and fungi is called
 - a) triple cell protein
 - b) single cell protein
 - c) double cell protein
 - d) tetra cell protein
45. The technique of Subchondroplasty (SCP) is introduced by
 - a) Gregor Mendel
 - b) Louis Pasteur
 - c) professor Scrimshaw
 - d) Ian Wilmot
46. By using the single-cell protein, the amount of protein that can be produced by algae grown in ponds (per acre) is
 - a) 20 tons
 - b) 30 tons
 - c) 40 tons
 - d) 50 tons
47. The substrate used by microorganisms to produce single-cell proteins includes
 - a) methane gas
 - b) industrial wastes
 - c) agricultural wastes
 - d) all of above
48. Which of the following is not a phase of the brewing process?
 - a) Fermentation
 - b) Pre-fermentation
 - c) Wort manufacture
 - d) Post-fermentation
49. The volume of alcohol in beers is measured by _____.
 - a) Alcohol by weight
 - b) Alcohol by mass
 - c) Alcohol by percentage
 - d) Alcohol by volume
50. Sake is produced by fermentation of sugars.
 - a) True
 - b) False