

NEET : CHAPTER WISE TEST- 8

SUBJECT :- BIOLOGY

CLASS :- 12th

CHAPTER :- MICROBES IN HUMAN WELFARE

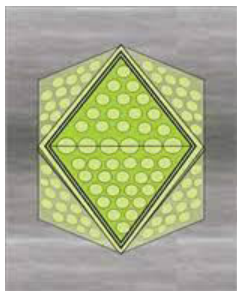
DATE.....

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SECTION.....

(SECTION-A)

1. Look at the figure, and select the correct option.



- (A) This is a prokaryote that causes respiratory disorder.
(B) This is a nucleoprotein particle that is capable of causing respiratory infections.
(C) This is an adenovirus that causes urinary infections
(D) This is a fungal colony growing in a Petri dish.

2. Read the following four statements. Find out correct option with respect to lactic acid bacteria.

- A. They produce acids the coagulate and partially digest milk fat.
B. They require suitable temperature for their multiplication.
C. They play a beneficial role by checking disease- causing microbes in our stomach.
D. They improve the nutritional quality by increasing the amount of riboflavin.

- (A) (A) and (C) (B) (B) and (D)
(C) (B) and (C) (D) (A), (C) and (D)

3. Lactic acid bacteria improve the nutritional quality of curd by increasing the content of

- (A) Vitamin B₂ (B) Vitamin B₆
(C) Vitamin B₁₂ (D) Vitamin D

4. Inoculum is added to milk during curd formation in order to

- (A) Increase the vitamin B₂ content
(B) Coagulate the milk proteins
(C) Improve the flavor of milk
(D) Partially digest the milk fat

5. Complete the following analogy:
Swiss cheese: *Propionibacterium shermanii*
: Bread : _____.

- (A) *Candida albicans*
(B) Lactic acid bacteria
(C) *Clostridium butylicum*
(D) *Saccharomyces cerevisiae*.

6. Milk preparation in which fruit or fruit flavor is added called

- (A) Cheese (B) Buttermilk
(C) Curd (D) Yogurt

7. Identify A and B in the following sentence:
Swiss cheese has large holes due to production of large amount of "A" by the activity of "B."

- (A) A - Ethanol; B-*Penicillium* sp.
(B) A - CO₂ ; B-*Propionibacterium shermanii*
(C) A CO₂ ; B-*Saccharomyces cerevisiae*
(D) A-Methane; B-Methanogens

8. In the fermentation of dough and cheese making, the main gas produced is

- (A) Methane and H₂
(B) Methane, CO₂ and H₂
(C) Carbon dioxide
(D) Carbon monoxide

9. Swiss cheese and camembert cheese are ripened by a _____ and a _____ respectively.

- (A) Bacterium, yeast.
(B) *Penicillium* sp., bacterium.
(C) Bacterium, *Penicillium* sp.
(D) Yeast, bacterium.

10. Read the following statements, and state true (T) or false (F).

A. In stomach, lactic acid bacteria play a very beneficial role in checking disease-causing microbes.

B. Leavening is swelling of dough during bread making.

C. The dough that is used for making foods such as dosa and idli is fermented by yeast.

D. Microbes are also used to ferment fish, soybean, and bamboo shoots to make food.

- (A) A-T; B-T; C-F; D-T
(B) A-T; B-T; C-F; D-F
(C) A-T; B-F; C-T; D-F
(D) A-T; B-F; C-T; D-T

11. Ethanol is commercially produced through a particular species of

- (A) *Penicillium*
(B) *Saccharomyces*
(C) *Streptococcus*
(D) *Actinomyces*

12. The large vessels for growing microbes on an industrial scale are called
 (A) Tanks (B) Digesters
 (C) Fermenters (D) All of the above
13. After fermentation, distillation is not necessary for the production of
 (A) Wine and beer
 (B) Whisky and brandy
 (C) Beer and rum
 (D) Wine and rum
14. The most common substrate used in distilleries for the production of ethanol is
 (A) Zea maize (B) Molasses
 (C) Soyabean (D) Fruits
15. The chemical substances produced by some microbes that can kill or retard the growth of other microbes are called
 (A) Antibiotics
 (B) Biocides
 (C) Bioactive molecules
 (D) Prebiotics
16. The scientist credited for showing the role of penicillin as an antibiotic is/are
 (A) Louis Pasteur
 (B) Workman
 (C) Alexander Fleming
 (D) Chain and Florey
17. Chain and Florey were awarded the Noble Prize in 1945 for the extraction of
 (A) Streptomycin (B) Penicillin
 (C) Statins (D) Streptokinase
18. Penicillin was accidentally discovered when Alexander Fleming was working with the culture of
 (A) Penicillium notatum
 (B) Streptococcus bacteria
 (C) Staphylococcus bacteria
 (D) Streptobacillus bacteria
19. Antibiotics have greatly improved our capacity to treat the following deadly disease except
 (A) plague (B) diphtheria
 (C) kali khansi (D) cancer
20. Read the following statements with respect to antibiotics, and state true (T) or false (F).
 A. Antibiotics means "prolife" in the context of disease-causing organisms.
 B. Waksman discovered Streptomycin and coined the term antibiotics.
 C. Therapeutic value of penicillin was established by Chain and Florey.
 D. Most of the antibiotics are obtained from Actinomycetes.
- (A) A-T; B-T; C-F; D-F
 (B) A-F; B-T; C-T; D-T
 (C) A-F; B-T; C-F; D-F
 (D) A-T; B-F; C-T; D-T
21. The chemicals that are prolife with reference to human beings.
 (A) Are regarded as one of the most significant discovery of the twentieth century.
 (B) Have greatly improved our capacity to treat deadly disease.
 (C) Can kill or retard the growth of disease-causing microbes.
 (D) All of the above.
22. All of the following are characteristics of a good antibiotic except
 (A) Broad spectrum
 (B) Immediate reaction
 (C) Destroy microflora of alimentary canal or heart
 (D) No side effect
23. Microbes are also used in the commercial production of certain organic acids. Butyric acid is produced by (A), and lactic acid is produced by (B).
 (A) A-Clostridium butylicum; B-Lactobacillus
 (B) A-Lactobacillus, B-Aspergillus
 (C) A-Clostridium butylicum; B-Aspergillus
 (D) A-Bacillus; B-Aspergillus
24. Citric acid is obtained through the fermentation carried out by_____.
 (A) Saccharomyces
 (B) Aspergillus niger
 (C) Rhizopus
 (D) Clostridium
25. Select the incorrectly matched pair.
 (A) Statin-Yeast
 (B) Streptokinase - Modified by genetic engineering
 (C) Cyclosporin A - Fibrinolytic effect
 (D) Lipases - Removes oily stains from the laundry
26. Tissues plasminogen activator (TPA) is obtained from
 (A) Trichoderma (B) Streptococcus
 (C) Monascus (D) Streptomyces
27. Cyclosporin A is obtained through fermentation activity of a fungus.
 (A) It has antifungal activity.
 (B) It has immunosuppressive but no antifungal property.
 (C) It is a blood cholesterol lowering agent.
 (D) It is used as blood clot busters.

28. *Monascus purpureus* is a source of
 (A) Blood clot removing agent
 (B) Blood purifying agent
 (C) Blood cholesterol lowering agent
 (D) Immunosuppressive agent
29. Match column I with column II, and choose the correct answer.
Column I
 a. Lipases
 b. Pectinases
 c. Streptokinase
 d. Statins
Column II
 (i) Clarifying fruit juices
 (ii) Clot buster
 (iii) Detergent formulation
 (iv) Blood cholesterol lowering agent
 (A) a – (iii); b – (i); c – (ii); d – (iv)
 (B) a – (iii); b – (iv); c – (ii); d – (i)
 (C) a – (iv); b – (ii); c – (i); d – (iii)
 (D) a – (i); b – (iii); c – (ii); d – (iv)
30. A patient brought to a hospital with myocardial infarction is immediately given
 (A) Penicillin (B) Statins
 (C) Streptokinase (D) Cyclosporin A
31. Blood cholesterol lowering agent
 (A) Is a degraded cholesterol
 (B) Does not allow synthesis of enzyme for cholesterol synthesis
 (C) Competitive inhibits the enzyme for cholesterol synthesis
 (D) Is commercially obtained from the bacteria *Monascus*.
32. _____ help in clarifying fruit juices.
 (A) Lipases and proteases
 (B) Pectinases and proteases
 (C) Amylases and lipases
 (D) Gluconic acid and lactic acid
33. The primary treatment of sewage involves
 (A) Decomposition
 (B) Microbial activity
 (C) Sequential filtration and sedimentation
 (D) Fermentation
34. Pick the incorrect match regarding sewage.
 (A) High BOD of water
 More potential of water
 (B) Activated sludge
 Secondary treatment
 (C) Anaerobic sludge
 Aerobic flocs
 (D) Physicochemical process
 Tertiary treatment

35. The sewage matter is treated till the BOD is reduced. Identify the treatment process
 (A) Primary treatment
 (B) Secondary treatment
 (C) Tertiary treatment
 (D) Chemical treatment

(SECTION-B)

36. Supply of oxygen to the biogas plant will have
 (A) Positive effect
 (B) No effect
 (C) Negative effect
 (D) First positive and then negative effect
37. The rumen of cattle harbors
 (A) Methanogens
 (B) Cyanobacteria
 (C) Methane-degrading bacteria
 (D) Cellulogens
38. Read the following statement with respect to biogas production, and state true (T) and false (F).
 A. The type of the gas produced depends upon the microbes and the organic substrate they utilize.
 B. Certain bacteria that grow aerobically on cellulose material produce large amount of methane along with CO₂ and H₂.
 C. *Methanobacterium* is a common methanogen.
 D. Methanogens are commonly found in the anaerobic sludge during sewage treatment.
 (A) A-T; B-F; C-T; D-T
 (B) A-F; B-T; C-T; D-T
 (C) A-T; B-F; C-T; D-T
 (D) A-F; B-F; C-T; D-T
39. A _____ is placed over the slurry in biogas plant.
 (A) Gas holder
 (B) Floating cover
 (C) Digester
 (D) Gas filter
40. The main component of the raw material used for biogas production is
 (A) Vegetable waste
 (B) Cow dung
 (C) Agriculture waste
 (D) Industrial waste
41. The residual left after methane production from cattle dung is
 (A) Burnt
 (B) Buried in landfills
 (C) Used as manure
 (D) Used in civil construction

42. Go through following matches with respect to biocontrol agents, and select the correct option.
 A. Ladybird beetle-Aphids
 B. Dragonflies-Mosquitoes
 C. Bacillus thuringiensis- Butterflies/caterpillars
 D. Trichoderma-Plant pathogens
 (A) Only (A) and (B) are correct.
 (B) Only (C) is correct.
 (C) Only (D) is correct.
 (D) All (A), (B) (C), and (D) are correct.
43. The nuclear polyhedro viruses (NPV) are
 (A) Not baculoviruses.
 (B) Effective against rodents.
 (C) Broad-spectrum insecticides.
 (D) Effective against insects and other arthropods.
44. Which of the following organisms is not used during biocontrol method?
 (A) Bacillus thuringiensis
 (B) Trichoderma
 (C) Ladybird beetle
 (D) Monascus purpureus
45. Which of the following is an example of carrying out biological control of pest or disease-causing microbes?
 (A) Bt spores to increase sugarcane yield.
 (B) Nuclear polyhedro virus against mammals, birds, and fish.
 (C) Ladybird beetle against mosquito.
 (D) Trichoderma species against certain plant pathogens.
46. Microbes used to control pests under IPM include
 (A) Dragonfly (B) Ladybird
 (C) Trichoderma (D) Cactoblastis
47. Consider the following four statements (A-D) related to organic farming, and select the correct option stating which ones are true (T) and false (F).
 A. The pests are not eradicated but instead are kept at manageable levels by a simple system of checks and balances with in a living and vibrant ecosystem.
 B. The more variety a landscape has, the less sustainable it is.
 C. No need to use chemical insecticides and pesticides.
 D. Uses chemical fertilizers containing organic com- pounds only.
- | | A | B | C | D |
|-----|--------|--------|--------|-------|
| (A) | A – T; | B – F; | C – T; | D – F |
| (B) | A – T; | B – F; | C – T; | D – T |
| (C) | A – F; | B – T; | C – T; | D – F |
| (D) | A – F; | B – T; | C – F; | D – T |
48. The organisms that are used to enrich the nutrient quality of the soil are called
 (A) VAM
 (B) Methanogensval
 (C) Biofertilizers
 (D) Biocontrol agents
49. Which of the following organisms can increase the nitrogen content of the soil?
 (A) Trichoderma and Anabaena
 (B) yeast and Penicillium
 (C) Glomus and Nostoc
 (D) Azospirillum and Azotobacter
50. Which of the following is not a belief of an organic farmer?
 (A) Complete eradication of pests
 (B) Biodiversity furthers health
 (C) Integrated pest management
 (D) Less dependence on chemicals