BIOLOGY

BOOKS - MODERN PUBLISHERS

BIOLOGY (HINGLISH)

MICROBES IN HUMAN WELFARE

Practice Problems Beverages Antibiotics And Household Products

1. What are micro-organisms?

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2. What is peculiar about Thermoplasma ?

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3. What is biogas?

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4. Which factors determine the nature of alcoholic beverage produced ?

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5. Give the scientific name of Brewer's yeast

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6. State one difference between wine and whisky

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7. Who reported the medicinal importance of antibiotics?

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8. What are antibiotics?

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9. What is peculiar about Griseofulvin ?

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10. Define bioactive molecules.

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11. Give the source and function of Streptokinase enzyme.

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12. Which bioactive compound lowers cholesterol level of Blood ?

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13. Expand the term LAB.

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14. What do you mean by ripening of cheese ?

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15. What is peculiar about Swiss cheese ?

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Practice Problems Sewage Treatment Biogas Biocontrol Agents And Biofertilizers

1. Define sewage.

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2. Expand the term STP.

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3. Define primary sludge.

Watch Video Solution

4. What is activated sludge ?

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5. Name the micro-organisms from which erythromycin is obtained

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6. Expand the term BOD.

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7. Define bioactive molecules

Watch Video Solution

8. Which organisms are employed in gobar gas production ?

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9. Expand the term KVIC.

Watch Video Solution

10. Define biocontrol agents.

Watch Video Solution

11. Why biopesticides are better than chemical pesticides?

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12. What are Baculoviruses ? Given one example.

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13. Define biofertilizers.

Watch Video Solution

14. What do you mean by Bt in Bt-cotton ?

Watch Video Solution

15. What are mycorrhizae ?

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Ncert File Exercise Questions

1. What is sewage?

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2. Give examples to prove that microbes release gases during metabolism.

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3. In which food would you find lactic acid bacteria? Mention some of their useful applications.

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4. What are bioherbicides?

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5. In which way microbes have played a major role in controlling diseases caused by harmful bacteria?

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6. Name any two species of fungus, which are used in the production of the antibiotics.

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7. What is sewage? In which way can sewage be harmful to us?

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8. What is the key difference between primary and secondary sewage treatment?

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9. Do you think mirocbes can also be used as source of energy ? If yes, how ?

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10. Which microorganisms are used as biofertilisers?

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11. Define BOD

Watch Video Solution

12. Find out the name of the microbes from which Cyclosporin A (an immunosuppressive drug) and Statins (blood cholesterol lowering agents) are obtained.

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13. From which fungi penicillin is obtained?

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14. Define sewage

Watch Video Solution

15. How do biofertilisers enrich the fertility of the soil?

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Ncert File Exemplar Problems Multiple Choice Questions

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. Vitamin B_{12}

D. Vitamin E

Answer: C

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2. What is Biogas?

Watch Video Solution

3. What is the role of cyclosporin A?

Watch Video Solution

4. Match the following list of bacteria and their commerically 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

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

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

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

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

Answer: C

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5. Match the following list of bacteria and their commerically important products :

Bioactive Substance	Role
(i) Statin	(a) Removal of oil stains
(ii) Cyclosporin-A	(b) Removal of clots from blood vessels
(iii) Streptokinase	(c) Lowering of blood cholesterol
(iv) Lipase	(d) Immuno-suppressive agent

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

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6. The primary treatment of waste water involves the removal of

A. Dissolved impurities

B. Stable particles

C. Toxic substances

D. Harmful bacteria

Answer: B

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

A. Total organic matter

B. Biodegradable organic matter

C. Oxygen evolution

D. Oxygen consumption

Answer: D

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

A. Wine

B. Whisky

C. Rum

D. Brandy

Answer: A

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

A. Gas Authority of India

B. Oil and Natural Gas Commission

C. Indian Agricultural Research Institute and Khadi & Village Industries Commission

D. Indian Oil Corporation

Answer: C

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10. 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

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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 become 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

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12. Mycorrhiza does nto help the host plant in

A. Enhancing its phosphorus uptake capacity

B. Increasing its tolerance to drought

C. Enhancing its resistance to root pathogens

D. Increasing its resistance to insects

Answer: D

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

A. Anabaena

B. Nostoc

C. Azotobacter

D. Pseudomonas

Answer: D

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14. Big holes in Swiss cheese are made by a

A. A machine

B. A bacterium that produces methane gas

C. A bacterium producing a large amount of carbon dioxide

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

Answer: C

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

A. Burnt

B. Burried in land fills

C. Used as manure

D. Used in civil construction

Answer: C

Watch Video Solution

16. Methanogens do not produce

A. Oxygen

B. Methane

C. Hydrogen sulphide

D. Carbon dioxide

Answer: A

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17. 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 organic matter

Answer: A

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18. Match the items 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*

Choose the correct match :

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

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

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

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

Answer: B

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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: A

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Ncert File Exemplar Problems B Very Short Answer Type Questions

1. Why does 'Swiss cheese' have big holes?

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2. What are fermentors?

 Watch Video Solution

3. Name a microbe used for statin production.

How do statins lower blood cholesterol level?

 Watch Video Solution

4. Why do we prefer to call secondary waste water treatment as biological treatment?

Watch Video Solution

5. What for nucleopolyhedro viruses are being used now a-days?

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6. How has the discovery of antibiotics helped mankind in the field of medicine?

 Watch Video Solution

7. Why is distillation required for producing certain alcoholic drinks?

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8. Write the most important characteristic that Aspergillus niger, Clostridium butylicum, and Lactobacillus share.

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9. What would happen if our intestine harbours microbial flora exactly similar to that found in the rumen of cattle?

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10. Give any two microbes that are useful in biotechnology.

Watch Video Solution

11. What is the source organism for Eco RI, restriction endonuclease?

Watch Video Solution

12. Name any genetically modified crop.

Watch Video Solution

13. Why are blue-green algae not popular as biofertilisers?

Watch Video Solution

14. Which species of Penicillium produces Roquefort cheese?

Watch Video Solution

15. Name the states involvedin Ganga Action Plan.

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16. Name any two industrially important enzymes.

Watch Video Solution

17. Name an immunosuppressive agent.

Watch Video Solution

18. Given an example of a rod-shaped virus.

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19. What is the group of bacteria found in both the rumen of cattle and sludge of sewage treatment?

Watch Video Solution

20. Name a microbe used for the production of Erythromycin

Watch Video Solution

21. What are Bioactive molecules?

Watch Video Solution

Ncert File Exemplar Problems C Short Answer Type Quesitons

1. What is the use Statins?

 Watch Video Solution

2. What is the source of Chloromycetin?

 Watch Video Solution

3. How do the mycorrhizal fungi help the plants?

 Watch Video Solution

4. Why are cyanobacteria considered useful in paddy fields?

Watch Video Solution

5. Who discovered penecillin?

Watch Video Solution

6. Name the scientists who were credited for showing the role of Penicillin as an antibiotic.

Watch Video Solution

7. How do bioactive molecules of fungal origin help in restoring good health of humans?

Watch Video Solution

8. What roles do enzymes play in detergents that we use for washing clothes? Are these enzymes produced from some unique microorganisms?

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9. What is the chemical nature of biogas. Name an organism which is involved in biogas production?


Watch Video Solution

10. How do microbes reduces the environmental degradation causes by chemicals?


Watch Video Solution

11. What is a broad spectrum antibiotic? Name one such antibiotic.

Watch Video Solution

12. What are viruses parasitising bacteria called ? Etc.

Watch Video Solution

13. Which bacterium has been used as a clot buster? What is its mode of action?

Watch Video Solution

14. What are biofertilisers? Give two examples.

Watch Video Solution

Ncert File Exemplar Problems D Long Answer Type Questions

1. Why is aerobic degradation more important then anaerobic degradation for the treatment of large volumes of wastewaters rich in organic matter. Disuss.

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2. (a) Discuss about the major programs that the Ministry of Environment and Forests, Government of India, has initiated for saving major India rivers from pollution.

(b) Ganga has recently been declared the

national river. Discuss, the implication with respect to pollution of this river.

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3. Draw a diagrammatic sketch of biogas plant and label its various components given below. Gas holder, sludge chamber, Digester, Dung+water chamber. Also briefly explain the utility of this biogas plant.

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4. Describe the main ideas behind the biological control of pests and diseases.

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5. (a) What would happen if a large volume of untreated sewage is discharged into a river?

(b) In what way anaerobic sludge diagestion is important in sewage treatments?

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6. Which type of food would have lactic acid bacteria? Discuss their useful application.

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Hots Higher Order Thinking Skills Brain Twisting Very Short Answer Questions One Mark Each

1. What causes doughing of wheat flour?

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2. Define antibiotics

Watch Video Solution

3. Give the source and significance of streptokinase.

Watch Video Solution

4. Define sewage.

Watch Video Solution

5. What are the composition of biogas?

Watch Video Solution

6. Which microbes are employed to produce biogas ?

Watch Video Solution

7. What are baculoviruses ?

Watch Video Solution

8. Define biofertilizers.

Watch Video Solution

9. What advantages the fungus derives from the mycorrhizal association ?

Watch Video Solution

10. Mention the role of cyclosporin A

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Hots Higher Order Thinking Skills Brain Twisting Short Answer Questions Two Mark Each

1. Why are biogas plants mainly located in the rural areas ?

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2. Write the role of streptokinase

Watch Video Solution

3. Mention one role of statin

Watch Video Solution

4. List four antibiotic and their sources ?

Watch Video Solution

5. What is sewage ?

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6. "BOD and DO have inverse relationship. Justify the statement.

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Hots Higher Order Thinking Skills Brain Twisting Short Answer Questions Three Marks Each

1. Expand the term LAB. Give their occurrence and significance.

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2. Show the relationship between BOD and DO with the help of a diagram. What is ill-effect of increase of BOD in water?

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3. Write notes on the following

(i) Baculoviruses

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4. What is biogas?

Watch Video Solution

Hots Higher Order Thinking Skills Brain Twisting Long Answer Quesitions Five Marks Each

1. What are Baculoviruses?

Watch Video Solution

2. Define bioactive molecules

Watch Video Solution

3. Write short notes on: (i) Mycorrhizae

Watch Video Solution

Quick Memory Test A Say True Of False

1. Which bacterium produces butyric acid?

Watch Video Solution

2. Beer, wine and whisky are non-alcoholic beverages.

Watch Video Solution

3. Griseofulvin increases a number of fungal diseases in the plants.

Watch Video Solution

4. Fermentation tank where fermentation is carried out in the presence of micro-organisms is called bioreactor.

Watch Video Solution

5. Chloremphenicol is extracted from Streptomyces griseus

Watch Video Solution

6. Presence of high amounts of organic wastes in the sewage decreases both BOD and DO.

Watch Video Solution

7. Organic farming involves the replacement of chemical fertilizers and pesticides by biofertilizers and blopesticides.

Watch Video Solution

8. Single cell proteins are the amounts of proteins produced by gingle cell of microbe per day.

Watch Video Solution

9. Bacillus ramosus is an ammonifying bacterium while Nitrosomonas is a N_2 fixing bacterium.

Watch Video Solution

10. Biogas plant provides energy source as well as manure.

Watch Video Solution

11. Bacteria used for converting milk into curd is Streptococcus.

Watch Video Solution

12. Methanogens do not produce oxygen.

Watch Video Solution

13. Streptokinase is used for removing clots from blood vessels of patients who suffer from

myocardinal infarction

Watch Video Solution

Quick Memory Test B Complete The Missing Links

1. The property of antibiotics to kill the pathogenic organisms is called .....,

Watch Video Solution

2. Penicillin is commonly called .... and was discovered by .....

Watch Video Solution

3. A mixture of methane, carbon dioxide, hydrogen and hydrogen sulphide is called.....

Watch Video Solution

4. .....is commonly called Baker's yeast.

Watch Video Solution

5. Acetobacter aceti converts ..... into vinegar.

Watch Video Solution

6. Neomycin antibiotic is produced by ..... while streptomycin is produced by .....

Watch Video Solution

7. In STP, solid and large sized wastes are removed by ..... while organic wastes are subjected to microbial decomposition by .....

Watch Video Solution

8. Curdling of milk is done by .....

Watch Video Solution

9. Enzyme ..... are used in detergents while fruit juices are clarified by ..... enzymes.

Watch Video Solution

10. Presence of more organic wastes in waste water increaso..... but decreases .....

Watch Video Solution

11. Biogas is produced during anaerobic fermentation of ..... material.

Watch Video Solution

12. Aphids on the mustard plants are controlled with the help of .....

Watch Video Solution

13. .....is a symbiotic N_2 fixer while ..... is a free living soil N_2 fixer.

Watch Video Solution

14. In paddy fields, ... are most important biofertlizers.

Watch Video Solution

15. Symbiotic association between fungus and root of higher plant is

Watch Video Solution

16. Micro-organism used to produce lactic acid through fermentation process is known as.....

Watch Video Solution

Quick Memory Test C Choose The Correct Alternative

1. Microbial digestion of organic wastes of sewage is called primary/secondary/tertiary treatment.

Watch Video Solution

2. A free living aerobic organism that helps in N_2 fixation is Azotobacter/Clostridium/Rhizobium.

Watch Video Solution

3. Chloromycetin antibiotic was extracted from Streptomyces griseus/venzuelae.

Watch Video Solution

4. Therapeutic significance of penicillin was given by Alexander Fleming/Chain and Florey.

Watch Video Solution

5. Gin is a distilled alcoholic drink/undistilled alcoholic drink

6. Enzyme lipase used in detergents to remove the oil stains from the clothes is produced by Candida/Aspergillus spp.

7. Bioactive molecule statin/cyclosporin-A is a yeast product and is produced by Monascus purpureus.

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8. Ripening of Swiss cheese is done by Propionibacterium/Leuconostoc

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9. GAP-II Programme was started in 1986/1993.

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10. Ny-fixing cells of Cyanobacteria are Heterocysts/Hormogones.

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Revision Exercises Mcqs

1. Heterocysts that take part in nitrogen fixation occur in

A. Nostoc

B. Polysiphonia

C. Fuchs

D. Ulothrix

Answer: A

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2. Chemical substance prouduced by one microorganism to inhibit the growth of another microorganism is called

A. Vaccine

B. Toxoid

C. Toxin

D. Antibiotic

Answer: D

Watch Video Solution

3. Rennin used in cheese indusry is

A. Antibiotic

B. Alkaloid

C. Enzyme

D. Inhibitor

Answer: C

 Watch Video Solution

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

A. Escherichia coli

B. Saccharmiyces cereviste

C. Bacillus subtilis

D. Pseudomonas putida

Answer: D

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5. Nitrosomonas changes

A. Nitrite to nitrate

B. Nitrogen to ammonia

C. Ammonia to nitrogen

D. Ammonia to nitrite

Answer: D

 Watch Video Solution

6. One of the useful activities of several bacteria is

A. Nitrification

B. Biogeochemical cycles

C. Nitrogen fixation

D. Sulphurification

Answer: B

Watch Video Solution

7. A bacterium which has been genetically modified to control pollution is

A. Pseudomonas

B. Rhizobium

C. Nitratacter

D. Nitromonas

Answer: A

Watch Video Solution

8. Soil microorganism which converts proteins to ammonia is :

A. Bacillus vulgaris

B. Nitrosomonas

C. Pseudomonas

D. None of these

Answer: A

 Watch Video Solution

9. A completely free living organism which takes part in N.-fixation is

A. Anzberia

B. Bacillus

C. Azotobacter

D. Rhizobium

Answer: C

Watch Video Solution

10. Cheese maturation is connected with:

A. Aspergillus oryzae

B. A. niger

C. Penicillium camemberti

D. P. chrysogenum

Answer: C

View Text Solution

11. A free living as well as symbiotic nitrogen-fixing prokaryote is:

A. Spirogyra

B. Anabaena

C. Oedogonium

D. Cladophora

Answer: B

 Watch Video Solution

12. Antibiotic flavicin is produced by

A. Aspergillus fumigatus

B. A. cazatics

C. Streptomyces griseus

D. S. Fradie

Answer: A

Watch Video Solution

13. Nitrogen fixation is performed by

A. Green algae and fungi

B. Ferns and cycads

C. Legumes and cereals

D. Blue-green algae and bacteria

Answer: D

Watch Video Solution

14. Bt-gene occurs in:

A. Bacillus thuringiensis

B. Escherichia coli

C. Agrobacterium tumefaciens

D. Rhizobium leguminosarum

Answer: A

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15. Mycorrhizal association occurs in Pinus, Ficus and

A. Utricularia

B. Legumes

C. Eucalyptus

D. Azadirachta

Answer: C

Watch Video Solution

16. Chloromycetin is obtained from

A. Streptonryces rimosus

B. S. verzele

C. S. griseus

D. S. scoleus

Answer: B

 Watch Video Solution

17. Organism useful in degrading organic pollutants is

A. Pseudomonas

B. Nitrosormones

C. Chlamydia

D. Actinomycetes

Answer: A

Watch Video Solution

18. In Nostoc, enzyme nitrogenase occurs in:

A. Vegetative cells

B. Heterocysts

C. Both (a) and (b)

D. Only in hormogones

Answer: B

Watch Video Solution

19. Citric acid is obtained from:

A. Aspergillus niger

B. Streptococci

C. Penicillium notatum

D. Saccharomyces cerevisiae

Answer: A

Watch Video Solution

20. Citric acid is produced by

A. Rhizopus

B. Micor

C. Aspergillus

D. Saccharomyces

Answer: C

Watch Video Solution

21. Which one converts nitrite to nitrate?

A. Nitrosomong

B. Nitrobacter

C. Azotobacter

D. Krizobium

Answer: B

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22. VAM contains

A. Symbiotic bacteria

B. Saprophytic bacteria

C. Symbiotic fungi

D. Saprophytic fungi

Answer: C

 Watch Video Solution

23. Which one of the following can fix nitrogen?

A. Oscillatoria

B. Spirogyra

C. Nostoc

D. None of these

Answer: C

Watch Video Solution

24. A free living anaerobic nitrogen fixing bacterium is :

A. Rhizobium

B. Anabaena

C. Azotobacter

D. Clostridium

Answer: D

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25. Antibiotics are

A. Drugs to kill viruses

B. oxins produced by bacteria

C. Products of bacterial metabolism

D. Both (b) & (c)

Answer: D

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Revision Exercises Very Short Answers Type Questions

1. The root nodules formed by leguminous plants have a red pigment called

A. Haemoglobin

B. Phycocyanin

C. Leghaemoglobin

D. Anthocyanin

Answer:

Watch Video Solution

2. Rhizobium phaseoli fixes atmospheric nitrogen symbiotically in :

A. Pea

B. Bean

C. Jowar

D. Maize

Answer:

Watch Video Solution

3. During biogas production, microorganisms used to bring about the anaerobic digestion is:

A. Pseudomonas

B. Rhizobium

C. Methanococcus

D. Methanobacillus

Answer:

Watch Video Solution

4. Write the name of any one disease in crops caused by fungi

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5. For biological control, which fungus is used in the treatment of plant diseases?

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6. Why is femn Azad frequently grown with the rice crop?

View Text Solution

7. What is the scientific name of baker's yeast?

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8. Which species of yeast is used for making bread and ethanol?

Watch Video Solution

9. What is sewage ? How is sewage disposed of ?

Watch Video Solution

10. What is biogas?

Watch Video Solution

11. Which micro-organism is used to produce hepatitis B vaccine?

Watch Video Solution

12. Expand the term LAB.

Watch Video Solution

13. Name the bacterium which was controlled with penicillin by Alexander Fleming

Watch Video Solution

14. Which of the microrganisms is used for production of citric acid in industries ?

Watch Video Solution

15. The scientific name of Baker's yeast is

Watch Video Solution

16. Write the scientific name of the microorganism used to produce ethanol.

Watch Video Solution

17. Name the bacteria which acts as Natural Genetic Engineer.

Watch Video Solution

18. Mention the role of Methanobacterium in rumen of cattle.

Watch Video Solution

19. Name the micro-organism that converts milk to curd.

Watch Video Solution

20. Where Lactobacillus is used commercially?

Watch Video Solution

21. Write the scientific name of the source organism for citric acid.

Watch Video Solution

22. Write the full form of SCP.

Watch Video Solution

23. What is the aim of Ganga Action Plan?

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Revision Exercises B Questions From Cbse Examinations

1. Bacteria that convert milk into curd play two other beneficial roles. What are they?

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2. Name the group of organisms and the substrate they act on to produce biogas.

Watch Video Solution

3. Which of the following is a free living bacteria that can fix nitrogen in the soil.

Spirulina, Azospirillum, Sonalika

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4. Milk starts to coagulate when Lactic Acid Bactria (LAB) is added to warm milk as a starter. Mention any other two benefits LAB provides.

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5. Mention the role of cyanobacteria as a biofertiliser.

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6. Write the scientific name of the microbe used for fermenting malted cereals and fruit juices.

Watch Video Solution

7. Write an alternate source of protein for animal and human nutrition.

Watch Video Solution

8. Name the type of association that genus Glomus exhibits with higher plants.

Watch Video Solution

9. Name the enzyme produced by Streptococcus bacterium. Explain its importance In medical sciences.

Watch Video Solution

10. Name the source of streptokinase . How does this bioreactor molecule function in our body?

 Watch Video Solution

11. Mention the importance of Lactic acid bacteria to humans other than setting milk into curd.

 Watch Video Solution

12. How do methanagens help in Producing biogas?

Watch Video Solution

13. Name the source of cyclosporin - A . How does - this bioactive molecule function in our body ?

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14. Name the bacterium responsible for the large holes seen in "Swiss Cheese" What are these holes due to?

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15. Explain the significant role of the genus Nucleopoyhedrovirus in ab ecological sensitive area.

Watch Video Solution

16. Mention a product of human welfare obtained with the help of each one of the following microbes :

(a) LAB

(b) Sacchromyces cerevisiae

(c) Propionibacterium shermanii

(d) Aspergillus niger

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17. Explain the process of secondary treatment give to the priamry effluent up to the point it

shows significant change in the level of biological oxygen demand (BOD) in it.

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18. Explain the function of "anaerobic sludge digester" in a sewage treatement plant.

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19. Name a genus of baculovirus. Why are they considered good biocontrol agents ?

Watch Video Solution

20. Name a free-living and symbiotic bacterium that serve as bio-fertilizer. Why are they so called ?

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21. How does the applications of the fungal genus, Glomus, to the agricultural farm increase the farm output?

Watch Video Solution

22. How does the applications of cyanobacteria help improve agriculture output?

Watch Video Solution

23. How do mycorrhizae help the plants to grow better?

Watch Video Solution

24. Name the microbes that help production of the following products commercially :

(a) Statin

(b) Citric acid

(c) Penicillin

(d) Butyric acid

Watch Video Solution

25. Write the binomials of two fungi and mention the profucts/bioactive molecules they

help to produces.

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26. Explain the process of sewage water treacment before it can be discharged into natural water bodies . Why is this treatment essential ?

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27. Mention one use of statins

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Revision Exercises Short Answer Type I Questions Two Marks Each Questions From State Board Examinations

1. Name two antibiotics that are produced from bacteria along with the name of concerned bacteria.

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2. Name the microbes lised for the production of Acetic acid and Lactic acid.

Watch Video Solution

3. What are biofertilisers? Give two examples.

Watch Video Solution

4. What are bloactive molecules. Name item.

Watch Video Solution

5. Name any two recombinant proteins. Write their uses in therapeutics.

Watch Video Solution

6. 'Microbes can be used as biopesticides". Briefly explain with the help of two examples.

Watch Video Solution

7. Name two special categories of microbas involved in production of biogas. Write composition of biogas.

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8. Why is Azolla frequently grown with the rice crop?

Watch Video Solution

9. How does biofertilizers enrich the fertility of soil?

 Watch Video Solution

10. Name any two species of fungus, which are used in the production of the antibiotics.

 Watch Video Solution

11. What is the source of cyclosporin - A? What is its significance?

Watch Video Solution

12. What are baculoviruses? Give example of baculoviruses.

Watch Video Solution

13. What are advantages of biofertilizers over chemical fertilizers? Give an example of biofertilizer.

Watch Video Solution

14. What are antibiotics? Name the organism from which Penicillin was first extracted.

Watch Video Solution

15. What are antibiotics? Name two microorganisms used to produce antibiotics.

Watch Video Solution

16. Write an account on the role of microbes in biogas production.

Watch Video Solution

17. What are advantages of biopesticides (Any two points)?

Watch Video Solution

18. Name the steps of biogas production

Watch Video Solution

19. Complete the table with appropriate terms:

Organism	Scientific name	Bioactive Product
Fungus	A	Citric acid
B	*Acetobacter-aceti*	Acetic acid
Fungus	*Trichoderma polysporum*	C
Yeast	D	Statin

View Text Solution

20. What is biogas? Name the principal organism involved in its production.

Watch Video Solution

21. Name the bacterium responsible for the large holes seen in "Swiss Cheese" What are these holes due to?

Watch Video Solution

22. What is the role of microbes in the production of bioactive molecules?

Watch Video Solution

23. Write down the role of Baculoviruses in biological control.

Watch Video Solution

24. Write down the role of bacteria as biofertilizers.

Watch Video Solution

25. How does microbial biocontrol agents control butterfly caterpillars?

Watch Video Solution

26. What is the rule of anabaena as botertilizers ?

Watch Video Solution

27. Write down the rule of microbes for the production of fermented beverages.

Watch Video Solution

28. What is the role of microbes in sewage treatment plant?

Watch Video Solution

29. What is chemical composition of blogas?

Watch Video Solution

30. What is haker's yeast? Che its application.

Watch Video Solution

31. Microbes an uwful to human beings in diverse ways. Name the following

(a) Microbe known "Baker's yeast".

(b) Lactic acid producing bacterium.

(c) Fungus which helps in the production of

bioactive molecule cyclosporine-A

(d) Symbiotic nitrogen fixing bacterium.

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Revision Exercises Short Answer Type Questions Three Marks Each A Questions From State Board Examinations

1. Write a note on the role of microbes in sewage treatment.

Watch Video Solution

2. What is the role of microbes in Industrial production.

Watch Video Solution

3. Write a note on the role of microbes in food processing.

Watch Video Solution

4. Describe briefly the role of microbes in sewage treatment.

Watch Video Solution

5. Discuss cyanobacteria as biofertilizers,

Watch Video Solution

6. Two types of fungi act as biofertilizers. What are those? How do they act as biofertilizers?

Watch Video Solution

7. What are mycorrhizae? Mention two importances of it.

Watch Video Solution

8. Describe the application of microbes in sewage treatment.

Watch Video Solution

9. Explain the role of methanogens in production of biogas

Watch Video Solution

10. State the medicinal value and the bioactive molecules produced by Streptococcus. Monascus and Trichoderma.

Watch Video Solution

11. What are methanogens? How do they help to generate biogas?

Watch Video Solution

12. What are baculoviruses? Explain their role in biocontrol of pests.

Watch Video Solution

13. How does bacteria act as a biofertilizer? Explain with examples.

Watch Video Solution

14. How does biofertilizers enrich the fertility of soil?

Watch Video Solution

15. What is biogas?

Watch Video Solution

16. (a) Biofortification. (b) Role of microbes in household food processing.

Watch Video Solution

17. Define fermentation and describe briefly how alcohol is produced in this process

Watch Video Solution

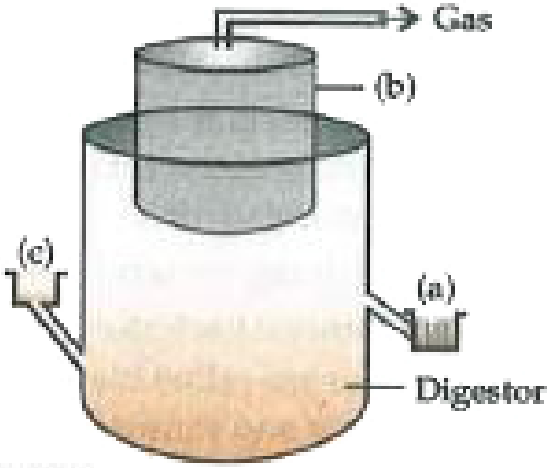
18. What are biopesticides? Write briefly on biopesticides with examples.

Watch Video Solution

Revision Exercises Short Questions From Cbse Examinations

1. The diagram below is that of a typical biogas plant. Explain the sequence of events

occurring in a biogas plant. Identify a,band c.



Watch Video Solution

2. (a) Why are fruit juices brought from market clearer as compared to those made at home?

(b) Name the bioactive molecules produced by

Trichoderma polysporum and Monascus purpureus.

Watch Video Solution

3. Describe how biogas is generated from activated sludge. List the components of biogas.

Watch Video Solution

4. Name the plant pest that destroys cotton bolls. Explain the role of Bacillus thuringiensis in protecting the cotton crop against the pest.

Watch Video Solution

5. What are Methanogens? Name the animals they are present in and the role they play there.

Watch Video Solution

6. The diagram above is that of a typical biogas plant. Explain sequence of events in a biogas plant. Identify a, b and c.

Watch Video Solution

7. Choose any three microbes from the following which are suited for organic farming which is in great demand these days. Mention one application of each one chosen: Mycorrhiza, Monascus, Anabaer, Rhizobium, Methanobacterium, Trichoderma

Watch Video Solution

8. State the medicinal value and the bioactive molecules produced by :

Streptococcus, Moonascus ,Trichoderma.

Watch Video Solution

9. Given below is a list of six micro- organisms . State their usefulness to humans.

(a) Nuclelolyedrovirus

(b) Sachharomycess cerevisiae

(c) Monascus purpureus

(d) Trichoerma polysporum

(E) Penicllium notatum

(F) Prpopionibacterium sharmanii

Watch Video Solution

10. (a) How do organic farmers control pests ? Give two example.

(b) State the difference in their approach from that of conventional pest control methods.

Watch Video Solution

11. (a) Organic farmers prefer biological control of diseases and pests to the use of chemicals for the purpose justify

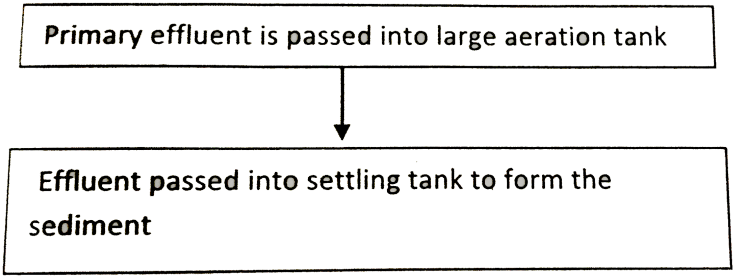
(b) Give example of a bacterium a fungus and an insect that are used as bio-control agents

Watch Video Solution

Revision Exercises V Case Baged Short Answer Type Questions

1. Large quantities of sewage is generated everyday in cities and towns, which is treated in Sewage Treatment Plants (STPs) to make it less polluted. Given below is the flow diagram of one of the stages of STP.

Observe the given flow diagram and answer the questions accordingly



(a) Why primary effluent is passed into large aeration tanks?

(b) Write the technical term used for the sediment formed? Mention its significance

(c) Explain the final step that results in the formation of biogas in the large tank before the treated effluent is released into water bodies.

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2. Antibiotics are the chemicals obtained from the useful micro-organisms and employed to kill some harmful micro organisms. But all the

antibiotics do not have medicinal importance.

Answer the following questions related to antibiotics:

(i) List the properties of the antibiotics to be used in medicines.

(ii) Discovery of penicillin is said to be a serendipity. Why is it called so?

(iii) Name the source of streptomycin antibiotic.

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Revision Exercises V Long Answer Type Questions Five Marks Each A Questions From State Board Examinations

1. How microbes can be used as biofertilizers?

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2. What is the role of microbes in sewage treatment plant?

Watch Video Solution

3. What is the role of microbes in production of biogas?

Watch Video Solution

4. How can microbes be used for production of biogas?

Watch Video Solution

5. How can microbes be used for production of chemicals and enzymes?

 Watch Video Solution

6. How can microbes be used in sewage treatment?

 Watch Video Solution

7. What are biofertilizers ? Explain how fungi act as bio-fertilizers.

8. Discuss the biological methods of control of insect pests.

9. Describe the biogas plant with a neat labelled diagram.

Watch Video Solution

10. What is the role of microbes in sewage treatment plant?

Watch Video Solution

11. What is biogas? What are the advantages of biogas?

Watch Video Solution

12. Explain the role of three micro-organisms as biocontrol agents.

Watch Video Solution

13. What is significance of BOD?

Watch Video Solution

14. Give an example for a fungus found in mycorrhiza.

Watch Video Solution

Competition File Objective Type Questions A Multiple Choice Questions Mcqs From Aipmt Neet Other Competitive Examinations

1. Which one of the following is a viral disease of poultry?

A. Pasteurellosis

B. Salmonellosis

C. Coryza

D. New castle disease

Answer: D

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2. Azotobacter and Beijerinckia are examples of :

A. Symbiotic nitrogen fixers

B. Non-symbiotic nitrogen fixers

C. Ammonifying bacteria

D. Disease causing bacteria

Answer: B

Watch Video Solution

3. Mycorrhizae are found in:

A. Oligotrophic soil

B. Eutrophic soil

C. Both of these

D. None of these

Answer: A

 Watch Video Solution

4. A major component of gobar gas is

A. Ammonia

B. Methane

C. Ethane

D. Butane

Answer: B

Watch Video Solution

5. A free-living nitrogen-fixing cyanobacterium which can also form symbiotic association with the water fern Azolla is :

A. Tolypothrix

B. Chlorella

C. Nostoc

D. Anaboer

Answer: D

Watch Video Solution

6. First hormone produced artificially by culturing bacteria is

A. Insulin

B. Thyroxine

C. Testosterone

D. Adrenaline

Answer: A

Watch Video Solution

7. Mycorrhiza is an example of

A. Parasitism

B. Symbiosis

C. Saprophytism

D.) None of these

Answer: B

 Watch Video Solution

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

A. Chitin

B. Starch

C. Cellulose

D. Dextran

Answer: D

 Watch Video Solution

9. Ethyl alcohol si commercially manufactured from

A. Bajra

B. Grapes

C. Maize

D. Sugarcane

Answer: D

 Watch Video Solution

10. An anaerobic bacterium capable of atmospheric N-fixation is:

A. Clostridium

B. Azotobacter

C. Rhodospirillum

D. Chlorobium

Answer: A

Watch Video Solution

11. Penicillin was discovered by:

A. Robert Brown

B. Robert Hooke

C. Fleming

D. B. McClintock

Answer: C

Watch Video Solution

12. Most potential organisms for production of insecticide is

A. Xanthomonas oryzae

B. Bacillus thuringiensis

C. Cranmis tiliaria

D. Helianthus C

Answer: B

Watch Video Solution

13. Cry 1 endotoxins obtained from Bacillus Thuringiensis are effective against

A. Nematodes

B. Bollworms

C. Mosquitoes

D. Flies

Answer: B

Watch Video Solution

14. Modern detergents contain enzyme preparations of

A. Thermoacidophiles

B. Thermophiles

C. Acidophiles

D. Alkaliphiles

Answer: D

Watch Video Solution

15. Nitrogen fixation in root nodules of Alnus is brought about by

A. Frankin

B. Azorhizobium

C. Bradyrhizobium

D. Clostridium

Answer: A

Watch Video Solution

16. Mycorrhizae show :

A. Amensalism

B. Parasitism

C. Commensalism

D. Symbiosis

Answer: D

 Watch Video Solution

17. Which of the following is a symbiotic nitrogen fixer ?

A. Glomus

B. Azotobacter

C. Franks

D. Azolla

Answer: C

 Watch Video Solution

18. Which of the following fixes atmospheric nitrogen?

A. Nesto

B. Algae

C. Methanogens

D. None of these

Answer: A

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19. Pasteurization takes place at:

A. 30°C for 60 minutes

B. 40°C for 30 minutes

C. 62°C for 30 minutes

D. 30°C for 20 minutes

Answer: C

Watch Video Solution

20. An example of symbiotic bacterium is

A. Ervini amylovord

B. Rhizobium leguminosarum

C.) Xanthomoras campestris

D. Agrobacterium tumefacias

Answer: B

Watch Video Solution

21. Which of the following is a free-living nitrogen fixing bacterium present in the soil ?

A. Nitrosomonas

B. Rhizobium

C. Pscudomonas

D. Azotobacter

Answer: D

 Watch Video Solution

22. Lichen is the association of :

A. Alga and alga

B. Alga and roots of higher plants

C. Alga and fungus

D. Fungus and fungus

Answer: C

 Watch Video Solution

23. A common biocontrol agent for the control of plant diseases is

A. Baculo virus

B. Bacillus thuringiensis

C. Glomus

D. Trichoderma

Answer: D

Watch Video Solution

24. An example of endomycorrhiza is

A. Nostoc

B. Glomus

C. Agaricus

D. Rhizobium

Answer: B

 Watch Video Solution

25. Which one of the following is now being commercially produced by biotechnological procedures?

A. Nicotine

B. Mophine

C. Quinine

D. Insulin

Answer: D

Watch Video Solution

26. Which of the following is produced by genetically-enineered bacteria ?

A. Thyroxine

B. Insulin

C. Glucagon

D. ADH

Answer: B

Watch Video Solution

27. Biogas production is carried out by :

A. Thermoacidophiles

B. Methanogens

C. Halophiles

D. Ruminants

Answer: B

Watch Video Solution

28. Biogas , produced by fermentation of manure, sewage cattle dung etc. predominantly comprieses :

A. Methane, nitrogen and hydrogen

B. Methane and carbon dioxide

C. Methane and carbon monoxide

D. Methane and nitric oxide

Answer: A

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29. Single cell protein refers to

A. A specific protein extracted from pure culture of single type of cells

B. Sources of mixed proteins extracted from pure or mixed cultures of cells.

C. Proteins extracted from a single cell

D. A specific protein extracted from a single cell

Answer: B

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30. 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 digestino of milk proteins

Answer: D

Watch Video Solution

31. Bacillus thuringiensis is used to control

A. Bacterial Pathogens

B. Fungal pathogens

C. Nematodes

D. Insect pests

Answer: C

Watch Video Solution

32. Procbiotics are :

A. Cancer-inducing microbes

B. Safe antibioties

C. Live microbial food supplements

D. Food allergens

Answer: D

Watch Video Solution

33. Which of the following microbes in used for commercial production of ethanol ?

A. Closteridium butylium

B. Streptococcus

C. Trichoderma polysporum

D. Saccharmyces cerevisiae

Answer: B

34. Penicillin was discovered by

A. A Fleming

B. W. Fleming

C. Blakslee

D. Dodge

Answer: D

Watch Video Solution

35. A prokaryotic autotrophic nitrogen fixing symbiont is found in

A. Alnus

B. Cyas

C. Cicer

D. Pisum

Answer: B

Watch Video Solution

36. Which one of the following is not a biofertilizer?

A. Agrobacterium

B. Rhizobium

C. Nostoc

D. Mycorrhiza

Answer: B

Watch Video Solution

37. An organism used as a biofertilizer for raising soyabean crop is

A. Azotobacter

B. Azospiriullum

C. Rhizobium

D. Nostoc

Answer: B

Watch Video Solution

38. The function of leghaemoglobin in the root nodules of legumes is

A. Inhibition of nitrogenase activity

B. Oxygen removal

C. Nodule differentiation

D. Expression of nif gene

Answer: A

 Watch Video Solution

39. Which one of the following helps in absorption of phosphorus from soil by plants

or

Which one of the following microbes forms symbiotic association with plants and helps them in their nutrition

A. Glomus forms mycorrhizal association with the roots of higher plants and increases the absorption of phosphorus, provides resistance to root borne pathogens, and increase the tolerance of

plants to increased salinity as well as drought.

B. Rhizobium

C. Frankia

D. Anabaena

Answer: B

 Watch Video Solution

40. Organisms called Methanogens are most abundant in a

A. Sulphur rock

B. Cattle yard

C. Polluted stream

D. Hot spring

Answer: D

Watch Video Solution

41. Cyclosporine A, which is used as an immunosuppressive, agent, is produced by:

A. Aspergillus

B. Clostridium

C. Saccharomyces

D. Monascus

Answer: C

Watch Video Solution

42. Flemming, Chain and Florey were awarded the Nobel Prize in 1945 for the discovery of

A. HIV

B. CT-scan

C. Penicillin

D. Staphylococcus

Answer: D

Watch Video Solution

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

(i) Whisky (ii) Wine

(iii) Beer (iv) Rum

(v) Brandy

A. (II) and (iii)

B. (i) and (ii) alone

C. (ii) and (v) alone

D. (iv) and (v) alone

Answer: A

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44. Nitrifying bacteria

A. Convert free nitrogen to nitrogen compounds

B. Convert proteins into ammonia

C. Reduce nitrates to free nitrogen

D. Oxidise aummonia to nitrates

Answer: B

Watch Video Solution

45. Ethanol is commercially produced through a particular species of:-

A. Closteridium

B. Trichoderma

C. Aspergillus

D. Saccharomyces

Answer: A

 Watch Video Solution

46. Rotenone is a

A. Bioherbicide

B. Commonly used biofertilizer

C. Bioinsecticide

D. Juvenile hormone

Answer: C

 Watch Video Solution

47. Which of the following plants are used as green manure in crop fields and in sandy soils

A. Crotolaria juncea and Alhali comelorum

B. Crotoluria procera and Phyllanthrus nirudi

C. Saccharum munja and Lantana camara

D. Dichunthum annulatum and Acacia Filotica

Answer: B

Watch Video Solution

48. A common biocontrol agent for the control of plant diseases is

A. Agrobacterium

B. Glomus

C. Trichoderma

D. Baculovirus

Answer: A

Watch Video Solution

49. In paddy fields, biological nitrogen fixation is chiefly brought about by

A. Cyanobacteria

B. Green algae

C. Mycorrhizae

D. Rhizobium

Answer: B

 Watch Video Solution

50. Cyclosporine A, which is used as an immunosuppressive, agent, is produced by:

A. Aspergillus

B. Clostridium

C. Saccharomyces

D. Trichoderma

Answer: D

Watch Video Solution

51. Food poisoning is caused by

A. Nitrosornoas

B. Lactobacillus

C. Escherichi coli

D. None of these

Answer: C

 Watch Video Solution

52. 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. Chemosynthetic autotrophs

D. Heterotrophic bacteria

Answer: D

Watch Video Solution

Watch video solution

53. Monascus purpureus is a yeast ued commercially in the production of

A. Ethanol

B. Streptokinase for removing clots from vlood vessels

C. Citric acid

D. Blood cholesterol lowering statins

Answer: D

Watch Video Solution

54. Which one of the following helps in absorption of phosphorus from soil by plants

or

Which one of the following microbes forms symbiotic association with plants and helps them in their nutrition

A. Azotobacter

B. Aspergillus

C. Glomus

D. Trichoderma

Answer: C

Watch Video Solution

55. Yeast is used in the production of

A. Citric acid and lactic acid

B. Lipase and pectinage

C. Bread and beer

D. Cheese and butter

Answer: C

Watch Video Solution

56. A nitrogen-fixing microbe associated with Azolla in rice fields is.

A. Spirulina

B. Aspergillus

C. Glomus

D. Trichoderma

Answer: B

Watch Video Solution

57. Which one of the following is an example of carrying out biological control of pests/diseases using microbes ?

A. Trichoderma spp. against certain plant pathogens

B. Nucleopolyhedrovirus against white rust in Brassica

C. Bt-cotton to increase cotton yield

D. Lady bird beetle against aphids in mustard

Answer: A

Watch Video Solution

58. Trichoderma is an example of which of the following group of Fungi?

A. Phycomycetes

B. Zygomycetes

C. Deuteromycetes

D. Basidiomycetes

Answer: C

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59. To speed up the malting process in brewing industry the growth hormone used is

A. Auxin

B. Gibberllic acid

C. Kinetin

D. Ethylene

Answer: B

 Watch Video Solution

60. Lactic acid bacteria (LAB) grow in milk and convert it to curd and also improve its nutritional quality by increasing

A. Vitamin-A

B. Vitamin B_{12}

C. Vitamin B_1

D. vitamin C and A

Answer: B

Watch Video Solution

61. An alga which can be employed as food for human being is

A. Spirogyra

B. Polysiphonia

C. Ulothrix

D. Chlorella

Answer: D

62. What gases are produced in anaerobic sludge digestres

A. Methane, Hydrogen sulphide and O_2

B. Hydrogen sulphide and CO_2

C. Methane and CO_2 only

D. Methane Hydrogen sulphide and $CO_2\backslash\backslash$

Answer: D

Watch Video Solution

63. which of the following is included in biopesticide ?

A. Viruses and bacteria

B. Viruses, bacteria and fungi

C.) Viruses, bacteria, fungi protozoans and mites

D. Viruses, bacteria, fungi and protozoa.

Answer: B

Watch Video Solution

64. In Bt cotton, the Bt toxin present in plant tissue as pro-toxin is converted into active toxin due to

A. Alkaline pH of insect gut

B. Acidic pH of insect gut

C. Action of gut micro-organisms

D. Presence of conversion factors in insect gut

Answer: A

Watch Video Solution

65. Microbial biocontrol agent for butterfly caterpillar is :

A. Bacillus thuringierisis

B. Saccharomyces

C. Lactobacillus

D. Cyanobacteria

Answer: A

Watch Video Solution

66. Antibiotic penicillin is produced from

A. Bacteria

B. Fungus

C. Lichen

D. Algae

Answer: B

 Watch Video Solution

67. Biogas is mainly formed of

A. CH_4

B. O_2

C. N_2

D. CO_2

Answer: A

Watch Video Solution

68. Rhizobium is an example of:

A. Biofertilizer

B. Biopesticide

C. Biopesticide

D. Symbiotic fungus

Answer: A

Watch Video Solution

69. Microbe responsible for converting milk into curd is :

A. Penicillium

B. Aspergillus

C. Saccharomyces

D. Lactobacillus

Answer: D

Watch Video Solution

70. Methanogens belong

A. Slime moulds

B. Eubacteria

C. Archaebacteria

D. Dinoflagellates

Answer: C

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71. Match Column-I with Column -II and select the correct option using the codes given

below

	Column-I		Column-II
(a)	Citric acid	(i)	Trichoderma
(b)	Cyclosporin A	(ii)	Clostridium
(c)	Statins	(iii)	Aspergillus
(d)	Butyric acid	(iv)	Monascus

A. $\begin{matrix} 1 & 2 & 3 & 4 \\ (\text{iii}) & (\text{iv}) & (\text{i}) & (\text{ii}) \end{matrix}$

B. $\begin{matrix} 1 & 2 & 3 & 4 \\ (\text{iii}) & (\text{i}) & (\text{ii}) & (\text{iv}) \end{matrix}$

C. $\begin{matrix} 1 & 2 & 3 & 4 \\ (\text{iii}) & (\text{i}) & (\text{iv}) & (\text{ii}) \end{matrix}$

D. $\begin{matrix} 1 & 2 & 3 & 4 \\ (\text{i}) & (\text{iv}) & (\text{ii}) & (\text{iii}) \end{matrix}$

Answer: C

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72. The primitive prokaryotes responsible for the prouduction of biogas from the dung of ruminant animals include the

A. Eubacteria

B. Halophiles

C. Thermoacidophiles

D. Methanogens

Answer: D

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73. Which of the following is wrongly matched in the given table:

Microbe	Product	Application
(a) *Closteridium butylinum*	Lipase	Removal of oil stains
(b) *Trichoderma polysporum*	Cyclosporin – A	Immuno – suppressive drug
(c) *Monascus purpureus*	Statins	Lowering of blood cholesterol
(d) *Streptococcus*	Streptokinase	Removal of clot from blood vessel

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74. The scientific name of Baker's yeast is

A. Saccharomyces

B. Lactobacillus

C. Aspergillus niger

D. Streptococcus

Answer: A

Watch Video Solution

75. Bacteria which converts milk into curd is

A. Lactobacillus

B. Streptococcus

C. Closteridium

D. Spirillium

Answer: A

 Watch Video Solution

76. Which of the following is correctly matched for the product produced by them

A. Actobacter acete: Antibiotics

B.) Methanobacterium: Lactic acid

C. Penicillium nokturn: Acetic acid

D. Saccharomyces cerevisie: Ethanol

Answer: D

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77. Bacillus thuringiensis is used as

A. Biafertilizer

B. Biopesticide

C. Biocontroller

D. Bioweapon

Answer: B

Watch Video Solution

78. Bt cotton is resistant against

A. Salt

B. Herbicide

C. Insect

D. Drought

Answer: C

Watch Video Solution

79. A nitrogen-fixing microbe associated with Azolla is:

A. Anaebaena

B. Spirulina

C. Totypothrix

D. Nostoc

Answer: A

 Watch Video Solution

80. A nitrogen-fixing microbe associated with Azolla in rice fields is.

A. Sprulina

B. Arabiana

C. Frankin

D. Tolypothrir

Answer: B

Watch Video Solution

81. Aquatic fern which is an excellent biofertilizer

A. Azolla

B. Salvini

C. Marsala

D. Pteridium

Answer: A

82. Methanogen do rot produce:

A. Oxygen

B. Methane

C. Hydrogen sulphide

D. Carbon dioxide

Answer: A

Watch Video Solution

83. Spirulina is a

A. Biofertilizer

B. Biopesticide

C. Edible fungus

D. Single cell protein

Answer: D

 Watch Video Solution

84. Devine and Collego are:

A. Bioinsecticides

B. Biofungicides

C. Bioherbicides

D. Single cell protein

Answer: C

View Text Solution

85. . Bacterium Lactobucillus is used in the preparation of edible product:

A. Desa

B. Idli

C. Curd

D. Toddy

Answer: C

View Text Solution

86. Bacterium Propionibacterium shermanit is used in the preparation of edible product:

A. Curd

B. Swiss cheese

C. Idli

D. Roquefort cheese

Answer: B

Watch Video Solution

87. Brewer's yeast is used in the production of industrial product

A. Bread

B. Ethanol

C. Penicillin

D. Acetic acid

Answer: B

Watch Video Solution

88. Pericidium roqueforti is used in the production of:

A. Wine

B. Curd

C. Bread

D. Cheese

Answer: D

Watch Video Solution

89. Antibiotic penicilin is produced from a:

A. Bacteria

B. Fungus

C. Lichen

D. Algae

Answer: B

 Watch Video Solution

90. N_2 - fxing bacteria in legume plants are:

A. Azotobacter

B. Frankia

C. Rizobia

D. None

Answer: C

Watch Video Solution

91. N_2 - fixing bacteria in non-legume plants are:

A. Frukia

B. Rhizobia

C. Plasmodium

D. Aspergillus

Answer: A

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92. Thiobacillus is group of bacteria helpful in carrying out:

A. Nitrogen fexation

B. Chemoautotrophy

C. Nitrification

D. Deriitrification

Answer: D

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93. Which of the following is a commercial blood cholesterol lowering agent?

A. Cyclosporin-A

B. Statin

C. Streptokinase

D. Lipases

Answer: B

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94. Select the correct group of biocontrol agents.

A. Bacillus thuringiensis,Tabcco Mosaic Vrius , Ahids

B. Trichoderma,Baculovirus, Bacillus thuringiensis

C. Oscillatoria, Rhizobium Trichoderma

D. Nostoc, Azospirillum, Nucleopolyhedrovirus

Answer: B

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95. Match the following organisms with the products they produce:

1. *Lactobacillus*	(i) Cheese
2. *Saccharomyces cerevisiae*	(ii) Curd
3. *Aspergillus niger*	(iii) Citric acid
4. *Acetobacter aceti*	(iv) Bread
	(v) Acetic acid

Select the correct option :

A. 1-(ii),2-(iv),3-(v),4-(iii)

B. 1-(ii),2-(iv),3-(iii),4-(iv)

C. 1-(iii),2-(iv),3-(v),4-(i)

D. 1-(ii),2-(i),3-(iii),4-(v)

Answer: B

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96. Acetic acid is produced by the use of micro-organismi called

A. Aspergillus niger

B. Acetobacter acet

C. Clostridium butyline

D. Lactobacillus bulgaricus

Answer: B

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97. The common nitrogen-fixer in the paddy fields is :

A. Rhizobium

B. Azospirillum

C. Oscillatoria

D. Frankia

Answer: D

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Competition File Objective Type Questions Matching Type Questions

1. Match the columns :

Column A	Column B
(i) *Streptomyces*	(a) Food poisoning
(ii) *Rhizobium*	(b) Source of antibiotics
(iii) *Nitrosomonas*	(c) Nitrogen fixation
(iv) *Acetobacter*	(d) Nitrifying
	(e) Vinegar synthesis

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

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

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

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

Answer:

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Competition File Objective Type Questions C Assertion Reason Type Questions

1. Assertion : Insulin is a type of antibiotic

Reason : Insulin is synthesized by microbes by the process of fermentation.

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation of Assertion

C. It Assertion and true but Reason is false.

D. If both Assertion and Reason are false.

Answer: D

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2. Assertion : Rotenone is a bioinsecticide.

Reason: Rotenone is obtained from living organisms and is employed to kill bacteria

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation of Assertion

C. If Assertion is true but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

3. Assertion : Chemical fertilizers and pesticides are not only expensive but also pose environmental hazards.

Reason: Any mismanagement during application of chemical fertilizers and

pesticides is likely to cause damage not only to crops but also to man.

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation of Assertion

C. It Assertion and true but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

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4. Assertion : Anabaena is commonly called a symbiotic biofertilizer.

Reason: Anabaena is found as endosymbiont in the thallus of Anthoceras.

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation of Assertion

C. It Assertion and true but Reason is false.

D. If both Assertion and Reason are false.

Answer: C

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5. Assertion : Only Lactobacillus lactic causes curdling of milk.

Reason: Only these bacteria can produce lactic acid.

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation of Assertion

C. If Assertion is true but Reason is false.

D. If both Assertion and Reason are false.

Answer: D

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6. Assertion : Discovery of penicillin by Alexander Fleming was a serendipity

Reason: A Fleming was working on Penicillium notatum along with Staphylococcus bacteria,

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation of Assertion

C. It Assertion and true but Reason is false.

D. If both Assertion and Reason are false.

Answer: C

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7. Assertion : BOD indicates the extent of water pollution by organic wastes.

Reason: Increase in BOD decrease dissolved oxygen of waste water.

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation

of Assertion

C. It Assertion and true but Reason is false.

D. If both Assertion and Reason are false.

Answer: B

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8. Assertion : Nucleopolyhedro virus is called a baculovirus.

Reason: Nucleopolyhedro virus is employed to control Bacillus bacteria.

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation of Assertion

C. If Assertion is true but Reason is false.

D. If both Assertion and Reason are false.

Answer: C

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9. Assertion : Nitogen - fixing bacteria in legume root nodules survive in oxygen - depleted cells of nodules.

Reason : Leghaemoglobin completely removes oxygen from the nodule cells.

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation of Assertion

C. If Assertion is true but Reason is false.

D. If both Assertion and Reason are false.

Answer: C

10. Assertion : Nitrogen fixing enzyme in legume root nodules function at low oxygen concentration.

Reason : Low oxygen concentration is provided by leghaemoglobin.

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation

of Assertion

C. It Assertion and true but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

11. Assertion : Organichlorine presticides are organic compounds that have been chlorinated.

Reason:Fenitrothion is one of the organochlorine pesticides.

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation of Assertion

C. It Assertion and true but Reason is false.

D. If both Assertion and Reason are false.

Answer: C

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12. Assertion : Baculoviruses are biocontrol agents of genus Nucleopolyhedrovirus.

Reason: They are effective against plant pathogens.

A. If both Assertion and Reason are true and Reason is a correct explanation of Assertion.

B. If both Assertion and Reason are true but Reason is not a correct explanation of Assertion

C. If Assertion is true but Reason is false.

D. If both Assertion and Reason are false.

Answer: B

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Chapter Practice Test Multiple Choice Questions One Mark Each Section A

1. What is the source of Streptokinase?

2. What are lipases?

3. Which of the following substances is an immuo-suppressive agent ?

A. Statin

B. Streptokinase

C. Lipase

D. Cyclosporin - A

Answer: D

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4. Thiobacillus bacteria are invloled in

A. Nitrogen fixation

B. Nitrification

C. Denitrification

D. Ammonification

Answer: C

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5. What are biofertilisers?

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Chapter Practice Test Short Answer Type I Questions Two Mark Each Section B

1. What is Mycorrhizae?

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2. Mention the source of Chloramphenicol

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3. What are baculoviruses ? Give one example

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4. Expand the term LAB.

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5. Define bioactive substance .

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Chapter Practice Test Short Answer Type Ii Questions Three Marks Each

1. What is the source of Erythromycin?

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2. Mention the composition of biogas.

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3. What are methanogens ?

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4. What are mycorrhizae ?

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Chapter Practice Test Case Based Short Answer Type Question Three Marks Each Section D

1. What is organic farming?

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Chapter Practice Test Long Answer Type Question Five Marks Each Section E

1. What is sewage ?

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2. What is the source of streptomycin?

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3. Define biogas

Watch Video Solution

4. Expand the term BOD.

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5. Define antibiotic

Watch Video Solution

6. Who discovered the first antibiotic ?

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7. What are antibiotics?

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8. Name the source organisms of streptomycin and chloromycetin.

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