



BIOLOGY

BOOKS - PREMIERS PUBLISHERS

MICROBES IN HUMAN WELFARE

Textbook Questions Answers

1. Which of the following microorganism is used for production of citric acid in industries ?

A. *Lactobacillus bulgaris*

B. *Penicillium citrinum*

C. *Aspergillus niger*

D. *Rhizopus nigricans*

Answer: C



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2. Which of the following pair is correctly matched for the product produced by them ?

A. *Acetobacter aceti* - Antibiotics

B. *Methanobacterium* - Lactic acid

C. *Penicilium notatum* - Acetic acid

D. *Saccharomyces cerevisiae* - Ethanol

Answer: D



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3. The most common substrate used in distilleries for the production of ethanol is _____

A. Soyameal

B. Groundgram

C. Molasses

D. Corn meal

Answer: C



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4. Cry toxins obtained from *Bacillus thuringiensis* are effective against _____

A. Mosquitoes

B. Flies

C. Nematodes

D. Bollworms

Answer: D



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5. Cyclosporin - A is an immunosuppressive drug produced from

- A. *Aspergillus niger*
- B. *Manascus purpureus*
- C. *Penicillium notatum*
- D. *Trichoderma polysporum*

Answer: D



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6. Which of the following bacteria is used extensively as a bio - pesticide ?

A. *Bacillus thuringiensis*

B. *Bacillus subtilis*

C. *Lactobacillus acidophilus*

D. *Streptococcus lactis*

Answer: A



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7. Which of the following is not involved in nitrogen fixation ?

A. Pseudomonas

B. Azotobacter

C. Anabaena

D. Nostoc

Answer: A



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8. CO_2 is not released during

A. Alcoholic fermentation

B. Lactate fermentation

C. Aerobic respiration in animals

D. Aerobic respiration in plants

Answer: B



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9. The purpose of biological treatment of waste water is to _____ .

A. Reduce BOD

B. Increase BOD

C. Reduce sedimentation

D. Increase sedimentation

Answer: A



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10. The gases produced in anaerobic sludge digesters are

A. Methane, oxygen and hydrogen sulphide

B. Hydrogen sulphide, methane and sulphur dioxide

C. Hydrogen sulphide, nitrogen and methane

D. Methane, hydrogen sulphide and CO_2

Answer: D



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11. How is milk converted into curd ? Explain the process of curd formation.



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12. Give any two bioactive molecules produced by microbes and state their uses.



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13. What is biological oxygen demand ?



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14. Explain the role of cry-genes in genetically modified crops.



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15. Write the key features of organic farming.



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16. Justify the role of microbes as a bio-fertilizer.



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17. Write short notes on the following.

(i) Brewer's yeast (ii) *Ideonella sakaiensis* (iii)

Microbial fuel cells



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18. List the advantages of biogas plants in rural areas.



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19. When does antibiotics resistance develop ?



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



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Other Important Questions Answers Mcqs

1. Why penicillin is referred to as the queen of drugs?

A. Streptomycin

B. Chloromycin

C. Kanamycin

D. Penicillin

Answer: D



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2. Which one is not an antibiotic?

A. Erythromycin

B. Cyclosporin A

C. Bacitracin

D. Neomycin

Answer: B



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3. The study of wine and wine making is known as

A. Zymology

B. Homology

C. Oenology

D. Ornithology

Answer: C



4. Choose the odd man out:

- A. *Zymomonas mobilis*
- B. *Sarcina ventriculi*
- C. *Saccharomyces cerevisiae*
- D. *Clostridium butyricum*

Answer: D



5. Identify the odd one out:

A. Yogurt

B. Paneer

C. Bread

D. Cheese

Answer: C



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6. Find out the odd one out:

A. Lady bird beetle

B. Dragon fly

C. Trichoderma

D. E.coli

Answer: D



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7. Assertion: Microbial fuel cells work by allowing bacteria to oxidize or reduce organic molecules.

Reason: Bacterial respiration is basically on big redox reaction in which electrons are being moved around.

A. Both Assertion and Reason are correct,
Reason is the correct explanation of
Assertion

B. Both Assertion and Reason are correct,

Reason is not the correct explanation of

Assertion

C. Assertion is correct, Reason is wrong

D. Both Assertion and Reason are wrong

Answer: B



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8. Assertion: Biogas is produced by the breakdown of organic matter under anaerobic condition.

Reason: The breakdown of raw organic waste is carried out by anaerobic bacteria.

A. Both Assertion and Reason are correct,

Reason is the correct explanation of

Assertion

B. Both Assertion and Reason are correct,

Reason is not the correct explanation of

Assertion

C. Assertion is correct, Reason is wrong

D. Both Assertion and Reason are wrong

Answer: A



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9. Assertion: The Biological Oxygen Demand (BOD) is high in raw sewage.

Reason: The greater the BOD in waste water, the lesser is its polluting potential.

- A. Both Assertion and Reason are correct,
Reason is the correct explanation of
Assertion
- B. Both Assertion and Reason are correct,
Reason is not the correct explanation of
Assertion
- C. Assertion is correct, Reason is wrong
- D. Both Assertion and Reason are wrong

Answer: C



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10. Which of the following is a correct statement?

A. The sewage contains large amount of organic matter and less of microbes.

B. The sewage contains large amount of organic matter and microbes

C. The sewage contains less amount of organic matter and large amount of microbes

D. None of the above

Answer: B



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11. Choose the correct statement:

A. Cheese is dairy product produced by

coagulation of milk protein, casein

B. The enzyme rennet is used for the

coagulation of milk protein

C. Most cheese are made with a starter
bacteria Lactococcus

D. All the above statements are correct

Answer: D



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12. Indicate the correct statement:

A. Aerobic microbes degrade the pollutants
in the absence of oxygen

B. *Pseudomonas putida* is a genetically modified micro organism

C. It is multiplasmid organic matter degrading bacterium

D. It can digest nitrogenous materials in the soil

Answer: B



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Other Important Questions Answers Answer The Following

1. Give an example of anaerobic microbe involved in bioremediation.



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2. What re mycorrhiza ?



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3. Mention any two insect bio pesticides



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4. Explain the Yamuna Action plan.



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5. What are methanogens?



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6. Write a note on organic farming.



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7. Write notes on bioremediation.



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8. What is mycoherbicide?



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9. UV is an ideal disinfectant for waste. water

Give Reason.



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10. Name any two industrial process in which microbes are involved.



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11. What is Biofuel? Explain.



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12. Mention any three genetically engineered microorganisms and their functions.



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13. List any three differences of chemical farming and organic farming.



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14. Mention any three examples of biofertilizer.



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15. How is wine produced?



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16. Explain the role of microbes in biogas production.



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17. Draw the schematic diagram of the action of cry toxin.



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18. How is industrial alcohol produced?



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19. Draw and label the schematic diagram of sewage treatment process.



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