BIOLOGY

BOOKS - A2Z BIOLOGY (HINGLISH)

MICROBES IN HUMAN WELFARE

Section A Topicwise Question Topic 1 Microbes In Household Products

1. Microbes are present everywhere - in soil, water, air, inside our bodies and that of other plants and animals. They are present even at sites where no othe life-form could possibly exist, such as

A. Deep inside the geysers (thermal vents) where the temperature may be high as $100^{\circ} C$

B. Deep in the soil, and under the layers of snow several meters thick

C. In highly acidic environment

D. All of the above

Answer: D

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2. Proteinaceous infectious particles causing diseasea are

A. Virus

B. Viroids

C. Prions

D. All of the above

Answer: C

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3. Select the microbes from the following:

Protozoa

Bacteria

Fungi

Microscopic plant viruses

Viroids

Prions

A. a,b and c

B. a,b,c and d

C. d,e and f

D. a,b,c,d,e and f

Answer: D

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4. Which of the following microbes can be grown on nutritive media and form colonies?

(a) Bacteria

(b) Fungi

(c) Viruses (d) Viroids

A. a and b

B. c and d

C. a,b and c

D. a,b,c, and d

Answer: A

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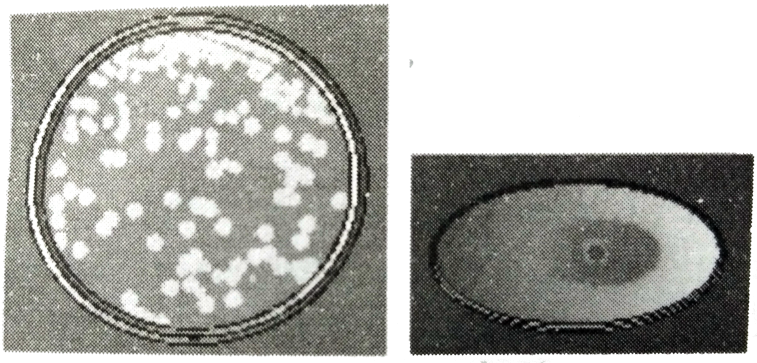

(a) (b)

5. Recognise the figure and find out the correct matching.

A. .a - bacterial colony, b - fungul colony

B. a - fungal colony, b - bacterial colony

C. a - viral colony, b - fungal colony

D. a - bacterial colony, b - viral colony

Answer: A

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6. The dough which is used formaking idli and dosa is fermented by

A. Saccharomyces cervisae

B. A bacterium

C. Lactobacillus

D. Propionibacterium sharmanii

Answer: B

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7. Large hole in Swiss cheese are due to production of large amount of C_2 by a

A. Bacteria

B. Fungi

C. Yeast

D. Lactobacillus

Answer: A

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8. Respiratory diseases are caused by

A. Salmonella typhi

B. HIV

C. Mycobacterium

D. Adenoviruses

Answer: D

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9. Cheeses are classified on the basis of

A. Flavour

B. Colour

C. Texture

D. All of the above

Answer: D

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10. Curd, cheese and butter are produced with the use of

A. Yeast

B. Penicillium

C. Streptococcus

D. None of th above

Answer: C

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11. Vineger is prepared from alcohol with the help of :

A. Lactobacillus

B. Acetobacter

C. Azotobacter

D. Rhizobium

Answer: B

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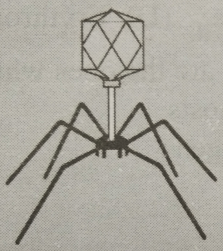
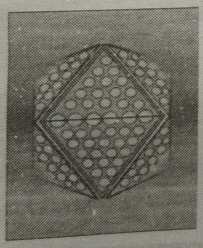
12. Match the following columns

	Column I		Column II
a.		1.	Adenovirus
b.		2.	Bacteriophage
c.		3.	TMV

A. a - 1, b - 2, c - 3

B. a - 2, b - 3,c - 1

C. a - 2, b - 1, c- 3

D. a - 3, b - 1, c - 2

Answer: C

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13. In cheese, microorganisms are required for

A. Ripening

B. Souring of milk

C. Souring and ripening

D. Development of resistance to spoilage

Answer: C

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14. Lactobacillus mediated conversion of milk to curd results because of:

A. Coagulation and partialdigestion 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 proteins and complete digestin of milk proteins

Answer: B

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15. Lactic acid bateria convert milk into curd an improves its nutritional quality by enhancing vitamin :

A. A

B. B

C. C

D. D

Answer: B

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Section A Topicwise Question Topic 2 Microbes In Household Products Fermented Beverages Antib

1. Production of beverages and antibiotics on an industrial scale requires growing microbes in very large vessels called

A. Setting tank

B. Fermentors

C. Biovessel

D. Agitator

Answer: B

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2. Type of the alcholic drinks are depend on the

A. Type of raw material used

B. Type of processing

C. Type of fermentors

D. Type of weather

Answer: D

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3. Penicillin was the first antibiotic which was a chance discovery. Alexander Fleming at that time was working on

A. Streptococci bacteria

B. Penicillium notatum

C. pencillium notatum

D. Staphylococci bacteria

Answer: D

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4. Which diseases are treated by antibiotics, among the following?(i) Kali Khansi

(ii) Kushtrog

(iii) Diphtheria

(iv) Plague

A. i,ii,iii

B. i,ii,iv

C. i,iii,iv

D. i,ii,iii,iv

Answer: D

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5. Pencillin was extensively used to treat American Soldiers wounded in _____ World War.

A. First

B. Seecond

C. Both A and B

D. None of the above

Answer: B

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6. Which of the following discases are treated by antibiotics ?

(i) Plague (ii) Diphtheria

(iii) Leprosy (iv) Whooping cough

A. a - 1, b - 2, c - 3, d - 4

B. a- 2, b - 3, c - 4, d - 3

C. a - 2, b - 4, c - 1, d - 3

D. a - 2, b - 1, c - 4, d - 3

Answer: C

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7. Full potential of Pencillin as an antibiotic was established by

A. Chain and Fleming

B. Chain andFlorey

C. Chain, Florey and Fleming

D. Florey and Fleming

Answer: B

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8. Fullnctioning of Stain is bases on

A. llosteric inhibition

B. Non- competitive inhibition

C. Competitive inhibition

D. Endproduct inhibition

Answer: C

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9. The most abundant prokaryotes helpful to humans in making curd and in production of antibiotics are ones categorised as:

A. Chemosynthetic autotrophs

B. Heterotrophic bacteria

C. yanobacteria

D. Archeabacteria

Answer: B

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10. Glucose fermentation by Yeast yields

A. Ethanol +$Co-(2)$

B. Ethanol +H_2O

C. Methanol + CO_2)

D. $H_2O + CO_2$

Answer: A

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11. Which of the folowing is used in the formation of beer and bread?

A. Rhizopus

B. Penicililum

C. Saccharomyces

D. Mucor

Answer: C

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12. Which of the following is called Baker'syeast and Brewer"s yeast?

A. Rhizopus

B. Penicililum

C. Saccharomyces

D. Mucor

Answer: C

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13. Penicillin inhibits bacterial multiplication because

A. Checks RNA synthesis

B. Checks DNA syntheis

C. Deastroyed chromatin

D. Inhibits cell wall formation

Answer: D

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14. Terramycin is obtained from:

A. Sterptomyces griseus

B. S. venzuelae

C. S. aureofaciens

D. S. rimosus

Answer: D

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15. Antibiotics are mostly obtained from

A. Fungi

B. Actinomycetes//Bacteria

C. Both A and B

D. yanobacteria

Answer: C

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16. Match the columns I and II, and choose combination from the options given.

	Column I		Column II
a	Citric acid	1	Bacteria
b	Acetic acid	2	Fungi
c	Butyric acid		
d	Lactic acid		
e	EthanolSA		

A. a - 2, b - 1, c - 1, d- 1, e-2

B. a - 1, b - 2, c - 1, d - 2, e - 1

C. a - 2, b - 2, c - 1, d - 1, e - 2

D. a - 2, b - 1, c - 1, d - 1, e - 2

Answer: D

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17. In 1928, a scientist discovered the first effective antibiotic. Scitist and antibiotic are

A. Fleming - Streptomycin

B. Fleming - Penicillin

C. - Pencillin

D. Waksman - Streptomycin

Answer: B

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18. Which is false about antibiotics ?

A. The term was coind by Waksman in 1942.

B. Antibiotics are capable of curing any disease

C. Some persons devlop allergy to antibiotics

D. Antibiotics are produced by microorganisms

Answer: B

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19. Streptomyces fradiae produces:

A. Auremycin

B. TerramycinNeomycin

C.

D. Erythrommycin

Answer: C

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20. Broad spectrum antibiotics are the ones which attack

A. Pathogens as well as hosts

B. A wide range of pathogens

C. Only a pathogen

D.

Answer: B

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21. Match column I with column II and select the correct option from the given codes

	Column I		Column II
A.	Aspergilius niger	(i)	Ethanol
B.	Clostridium butylicm	(ii)	Statins
C.	Saccharomyces cerevisiae	(iii)	Citric acid
D.	Trichoderma polysporum	(iv)	Butyric acid
E.	Monascus purpureus	(v)	Cyclosporin A

A. I - d, ii - c, iii - b, iv - a, v - c

B. I - e, ii - d, iii - a,iv - b, v - c

C. I - c, ii - d, ii - a, iv - e, v - b

D. I - c, ii - d, iii - e, iv - a, v - b

Answer: C

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22. Antibiotic are drugs commonly used to cure diseases of

A. Fungi

B. Viruse

C. Protozoams

D. Bacteria

Answer: D

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23. An enzyme that can stimulate germination of barley seeds is

A. Invertase

B. α- amylase

C. Lipase

D. Protease

Answer: B

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Section A Topicwise Question Topic 3 Microbes In Sewage Treatment

1. Full form of BOD is

A. Biological Oxygen Demand

B. Biological Organic Demand

C. Bichemical Oxygen Deficit

D. Biochemical Oxygen Demand

Answer: D

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2. BOD refers to the amoun of the ...a.... That would be consumed if all the ...b... in one ...c... of water were oxidised by ....d... .

A. a - bacteria, b - CO_{92}), c - ml, d - oxygen

B. a - microbes, b - organic matter, c litre, d - oxygen

C. a - oxygen,b - organic matter,c - ml, d - bacteria

D. a - oxygen, b - organic matter, c - ml, d - bacteria

Answer: C

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3. Activated sludge should have the ability to settle quickly so that it can

A. Absorb colloidal organic matter

B. Be discared and anaerobically digested

C. Be rapidally pumped back from sedimentation tank to aertion tank

D. Absorb pathogenic bacteria present in the wastte watr while sinking to the botton of the settling tank

Answer: C

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4. Filtration and Sedimentation are the sewage treatment steps involved in

A. 1^(@)`treatment

B. 2° treatment

C. Biological treatment

D. Both B and C

Answer: A

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5. In biological treatment, when the BOD of sewage is reduced significantly, the effluent is then passes into

A. settling tank

B. Aeration tank

C. Anaerobic sludge digesters

D. Aerobic sludge digesters

Answer: A

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6. Treatment of waste water is done by the

A. Autotrophic microbes

B. Heterotrophic microbes

C. Chemoautotrophic microbes

D. All of the above

Answer: B

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7. After secondary treatment, a part of activated sludge is passes back to aeration tank as inoculum while most of the part of activated sludge passed to

A. Anaerobic sludge digesters

B. Rivers and streams

C. Aeration tank

D. Settling tank

Answer: A

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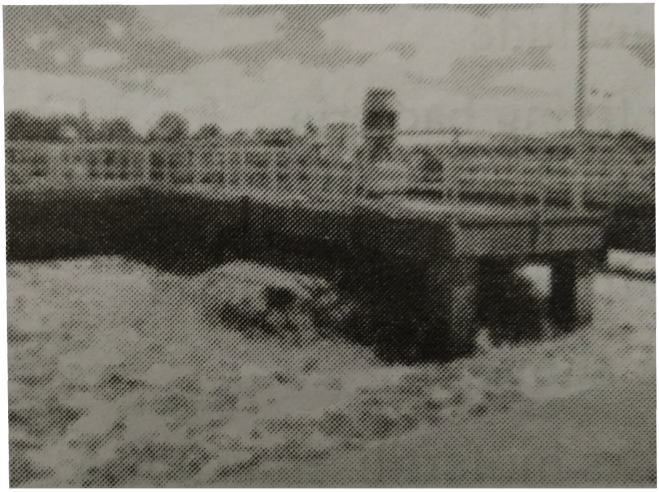
8. The following figure shows



A. Priamry treatment

B. Secondary treatment

C. Biological treatment

D. Both B and C

Answer: D

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9. Physical removal of large and small particle from the sewage through filtration and sedimentation is called

A. Primary treatment

B. Secondary treatment

C. Biological treatment

D. Both B and C

Answer: A

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10. Select the correct statement from th following.

A. Activated sludge in settlement tanks of sewage treatment plant is a rich source of aerobic bacteria

B. Biogas is produced by the activity of aerobic bacteria on naimal waste (dung)

C. Methanobacterium is an aerobic bacterium found in rumen of cattle

D. Biogas, commonly called gobar gas, is pure methane.

Answer: A

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11. Group of bacteria used in biogas production is

A. Eubacteria

B. Organotrophs

C. Mthanotrophs

D. Methanogens

Answer: D

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12. Sewage treatment process in which part of decomposer bacteria is recycled into starting of the process is called

A. Cyclic treatment

B. Primary treatment

C. Tertiary treatment

D. Activated sludge treatment

Answer: D

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13. Methanogens growing anaerobically on cellulosic material produce

A. Methane

B. Methane and hydrogen

C. Methane and carbon dioxide

D. Methane, carbon dioxide and hydrogen

Answer: D

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Section A Topicwise Question Topic 4 Microbes In Production Of Biogas

1. Microbes produce different types of gaseous end products during growth and metabolism.

A. Microbes

B. Organic substractesutilised by microbes

C. End product

D. Both A and C

Answer: D

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2. In which of the following examplesCO_2 gas is produced?

(a). Fermentation of dough

(b). Cheese making

(c). Production of beverages

(d). Biogas production

Alchoholic fermentatation

(e). Alcholic fermentation

(f). Lactic acid fermentation

A. a,b,c and e

B. a,b,c, and d

C. a,b,c,d and e

D. a,b,b,d,e and f

Answer: C

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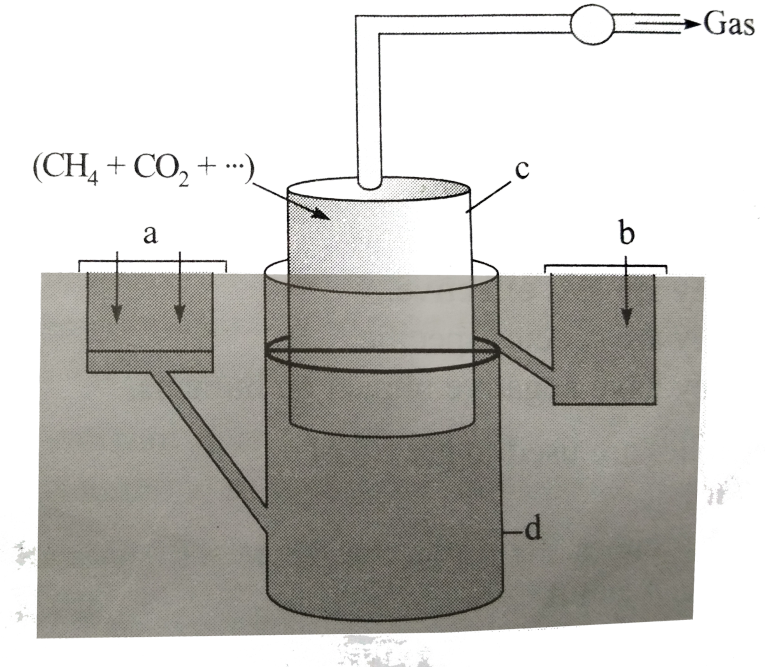
3. Recognise the figure and find out the correct matching.



A. a-sludge, b - dung and water, c - digester, d- gas holder

B. b - sludge, a - dung and water, d - digester, c - gas holder

C. a - sludge, b - dung and water, d - digester, c - gas holder

D. b - sludge, a - dung and water, c - digester, d - gas holder

Answer: B

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4. A peculiar odour that occurs in marshy areas and cowsheds is due t gas produced by

A. Cyanobacteria

B. Archeabacteria

C. Mycoplasme

D. Slime Moulds

Answer: B

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Section A Topicwise Question Topic 5 Microbes As Biocontrol Agents

1. If we need to protect our crops from mosquitoes then we can use

A. Ladyibird beetle

B. Dragonflies

C. Bacillus thuringiensis

D. Both A and B

Answer: B

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2. Baculoviruses are used as biological control agents that attacks

A. Insects

B. Mammals

C. Other arthrpods

D. Both A and C

Answer: D

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3. Biological method of control of pets and disease rlies on

A. Interspecific competition

B. Intraspecific competition

C. Natural predation

D. Introduced chemicals

Answer: C

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4. To control butterfly catrpillars we can use

A. Ladybird beetle

B. Dragonflies

C. Nuceopolyhedrovirus

D. Bacillus thuringiensis

Answer: D

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5. Which is incorrect about the Nucleopolyhedrovirus (NPV)?

A. These are species- specific.

B. These are broad-spectrum.

C. They have no negative impact on plants, mammals, bird fish and non-target insects.

D. They aid in an overall IPM programme or when an ecologically sensitive area is being treated.

Answer: B

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6. Which of the following is one of the advantage of application of viruses as bioinsecticides?

A. They are not used in IPM.

B. They are less effective.

C. They are species specific.

D. They have negative impact on humans.

Answer: C

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7. Dragonflies are used to get rid of

A. Aphids

B. Mosquitoes

C. Both A and B

D. Shoot borer and frruit borer

Answer: B

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8. The majority of Baculoviruses are used as biological control agents as

A. They are species-specific

B. They have no negative impact on non-targets

C. Beneficial insects are being conserved

D. All of the above

Answer: D

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9. Which is a microbial insecticide ?

A. Bacillus thuringiensis

B. B. subtilis

C. B.polymixa

D. B.brevis

Answer: A

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Section A Topicwise Question Topic 6 Microbes As Biofertilisers

1. Which of the following is not an advantage of mycorrhiza?

A. Nitrogen fixation

B. Resistance to root borne pathogens

C. Tolerance to salinity and drought

D. Phosphorus absortion

Answer: A

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2. The country pioneer in production of fuel alcohol is

A. Saudi Arabia

B. Japan

C. Brazil

D. Iran,Iraq

Answer: C

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3. Farmers have reported have reported 50% higher yiels of Rice by using biofertilizer

A. Azolla pinnata

B. Legume-Rhizobium symbiosis

C. Glomus

D. Mycorrhiza

Answer: A

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4. Latest trend in plant disease control is

A. Chemical control

B. Biological control

C. Good manure and fertiliser

D. Breeding for disease resistance

Answer: B

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5. Biofertilisers include

A. Nitrogen fixing bacteria

B. Mycorrhiza

C. Nitrogen fixing cyanobacteria

D. All of the above

Answer: D

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6. Azolla is used as biofertilizer as it has

A. Rhizobium

B. Cyanobacteria

C. Mycorrhiza

D. Large quantity of humus

Answer: B

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7. Organic farming is raising crops through use of

A. Biofertilisers

B. Manures

C. Resistant Varieties

D. All of the above

Answer: D

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8. Organic farming does not include

A. Green manures

B. Chemical fertilizer

C. Crop rotation

D. Compost and farmyard manures

Answer: B

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9. Mycorrhiza is helpful in

A. Synthesis of food

B. Getting nutrients from soil

C. Providing resistance against different regulators

D. Increase the fertility od soil

Answer: B

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10. If wheat field is inoculated with Rhizobium

A. Soil will become nitrogen rich

B. No effect on soil nitrogen

C. Soil will be depleted of nitrogen

D. Soil will become rich in calcium

Answer: B

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11. Which of the following acts as biofertiliser

A. Nostoc

B. Rhizobium

C. Mycorrhiza

D. All of the above

Answer: D

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Section B Assertion Reasoning Questions

1. Assertion:Besides macroscopic plants and animals, microbes are the major components of biological systems on this earth.

Reason: Microbes causea large number of diseases in humans, plants and animals.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: B

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2. Assertion: Not all the microbes are harmful, several microbes are useful to man in diverse ways.

Reason: Microbes are used to ferment fish, soyabean and bamboo-shoot to make food.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: A

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3. Assertion: Lactobacillus and LAB grow in milk and convert it to curd.

Reason: In our stomach, the LAB plays very beneficial role in checking disease causing microbes.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: B

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4. Assertion: Cheese is one of the oldestfood items in which microbes ere used.

Reason: Different varieties of cheese are known by their charateristic texture, flavour and taste, the specificity coming from the microbes wer used.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: B

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5. Assertion: Toddy is a traditional drink of some part of northen India.

Reason: Toddy is made by fermenting sap from sugarcane.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: D

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6. Assertion: Ethanol is produced by fermenting malted cereals and fruit juices by yeast.

Reason: Wine and beer are produced by distillation of the fermented broth.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: C

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7. Assertion: Antibiotics produced by microbes are regarded as one of the most significant discoveries of nineteenth century

Reason: Anti is a Latin word that means 'against' and bio means 'life', together they mean "agains tlife' (in the context of disease causing organisms).

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: D

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8. Assertion: Discovery of the first antibiotic was a chance discovery.

Reason: Penicillin was the first antibiotic.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: B

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9. Assertion: Bottled fruit juices bought from the market are clearer as compared to those made at home.

Reason: Bottled juices are clarofied by the use of pectinases and proteases.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: A

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10. Assertion: The municipal waste-water is also called sewage.

Reason: Amalor component of sewage is human excreta.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: B

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11. Assertion: Sewage contains large amounts of organic matter and microbes. Many of which are pathogenic.

Reason: Before disposal, sewage is treated in sewage treatment plants (STP_s)

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: B

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12. Assertion: Indirectly, BOD is measure of organic matter present in the water.

Reason: The BOD test measures the rate of uptake of oxygen by micro-organisms in a sample of water.

A. If both assertion and reason are true and the reason is the correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: A

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13. Assertion: The greater the BOD of waste water, less is its polluting potential.

Reason: The effuent from the primary treatment plant is generally released into natural water bodies like rivers and streams.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: D

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14. Assertion: Biogas can be used as source of energy.

Reason: Biogas is inflammable.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: A

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15. Assertion: Till date, no man-made technology has been able to rival the microbial treatment of sewage.

Reason: Untreated sewage is often discharged directly into rivers leading to their pollution and increase in water-borne disease.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: B

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16. Assertion: Ganga Action Plan and Yamuna Action Plan has intiated to save these major rivers from pollution.

Reason: These action plans has intiated by IARI and KVIC.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: C

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17. Assertion: Biogas plants are more often built in rural areas

Reason: Cattle dung is available in large quantities in rural areas wherecattle ae used for a variety of purposes.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: A

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18. Assertion: Soil is polluted through use of weedicides to remove weeds. Reason: Agricultural chemicals (like insecticides and pesticided) are toxic and extremely harmful, to human beings and animals alike, and have been polluting environment (soil,ground water), fruits, vegetables and crop plants.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: B

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19. Assertion: The use of bicontrol measures will greatly reduce our dependence on toxic chemicals and pesticides.

Reason: Bt is used to protect the brassicas and fruit trees from butterfly caterpillars.

A. If both assertion and reason are trueand the reason is the correct explanation of the assrertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If assertion istrue but reason is false.

D. If both assertion and reason are false.

Answer: B

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Section D Chapter End Test

1. The antibiotic cephalosporin is obtained from a species of:

A. Bacterium

B. Alga

C. Fungus

D. Mycoplasma

Answer: C

Watch Video Solution

2. Who is credited with indentifying petro crops?

A. Swaminathan

B. Calvin

C. Krebs

D. Borlaug

Answer: B

Watch Video Solution

3. Government of India is putting more stress on planting quick growing trees which yield better fodder and fuel.It is under

A. Afforestation

B. Forest conservation

C. Social forestry

D. All of the above

Answer: C

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4. Cow dung is appropriately used as

A. Manure

B. Fuel

C. Medicine

D. Building material

Answer: A

Watch Video Solution

5. Who showsed that certain plants can function as a source of hyfdrocarbons

A. Melvin Calvin

B. Hans Krebs

C. Robert Brown

D. John Priestley

Answer: A

Watch Video Solution

6. Bioenergy is obtained from

A. Petroleum

B. Natural gas

C. Biomass

D. Synthetic fuel

Answer: C

Watch Video Solution

7. Which one is a neem product used as insect repellent

A. Rotenone

B. Azadirachtin

C. Parathion

D. Endrin

Answer: B

Watch Video Solution

8. which of the following plant is used as green manure ?

A. Crotalaria juncea

B. Azolla

C. Hevea braziliensis

D. Azadirachta juncea

Answer: A

Watch Video Solution

9. The main energy containing components of biogas is

A. Methane

B. Hydrogen sulphide,nitrogen,methane

C. Hydrogen sulphide

D. Carbon dioxide

Answer: A

Watch Video Solution

10. Which one is a petroplant?

A. Cicer arietinum

B. Beta vulgaris

C. Euphorbia lathyrus

D. Solanum tuberosum

Answer: C

Watch Video Solution

11. Highest number of antibiotics are produced by

Watch Video Solution

12. Mycorrhiza works as

A. Root

B. Root hair in unfavourable condition

C. Mechanical support

D. Organ of respiration

Answer: B

Watch Video Solution

13. A phosphate solubilising symbiotic association is

A. Lichen

B. Mycorrhiza

C. Helotism

D. Mutualism

Answer: B

Watch Video Solution

14. Which one of the following is antifungal antibiotic

A. Choramphenical

B. Streptomycin

C. Griseofluvin

D. All of the above

Answer: C

Watch Video Solution

15. Which one of the following is not uded in the production of yoghurt

A. Streptococcus lactis

B. Stretococcus thermophilus

C. Lactobacillus bulgaricus

D. Acetobacter aceti

Answer: D

Watch Video Solution

16. Rennin used in cheese indusry is

A. Inhibitor

B. Alkaloid

C. Enzyme

D. Inducer

Answer: C

Watch Video Solution

17. Streptomycin is useful for treatment of pathogens

A. Gram $(+)$

B. Grain $(-)$

C. Both A and B

D. Gram neutral

Answer: C

Watch Video Solution

18. Fermentatioon of sugar to yield alcohol is carried out by

A. Microorganisms

B. Zymase

C. Raised temperature

D. Decomposition of sugar

Answer: B

Watch Video Solution

19. Match the following.

a	Citric acid	i	Streptococcus
b	Streptokinase	ii	Aspergillus niger
c	Cyclosporin-A	iii	Monascus purpureus
d	Stains	iv	Trichoderma polysporum

A. a-ii,b-I,c-iv,d-iii

B. a-iv,b-ii,c-iii,d-i

C. a-ii,b-I,c-iii,d-iv

D. a-I,b-ii,c-iii,d-iv

Answer: A

Watch Video Solution

20. The earliest pesticide was

A. Margosa

B. Pyrethrum

C. Nicotine

D. DDT

Answer: A

Watch Video Solution

21. Apetroleum plant is

A. Sugarcane plant is

B. Maize

C. Potato

D. Euphorbia

Answer: D

Watch Video Solution

22. Germinating barley seeds are employed in the preparation of

A. Lactic acid

B. Wine

C. Cheese

D. Beer

Answer: D

Watch Video Solution

23. Distillation of wine is necessary as it

A. Increases duality

B. Prevents further fermentation and spoiling of whisky

C. Decreases toxicity

D. Has no action on nature of wine

Answer: B

Watch Video Solution

24. Distribution of clean and quality milk throughout the world has been made possible through work of

A. Leeuwenhoek

B. Koch

C. Pasteur

D. Blackman

Answer: C

Watch Video Solution

25. Pyrethrin is extracted from

A. Azadirachta indica

B. Helianthus annuus

C. Poa annua

D. Chrysanthemum cinerariaefolium

Answer: D

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26. Organic manure formed by Earthworm is

A. Worm casting

B. Urea

C. Ammonia

D. Vermiculture

Answer: A

Watch Video Solution

27. Which organic compound is produced by fermentation and is used to partially replace fossil fuel?

A. Butanol

B. Methanol

C. Ethnol

D. Propanol

Answer: C

Watch Video Solution

28. A petrocrop is

A. Sugarcane plant is

B. Maize

C. Euphorbia lathyrus

D. Potato

Answer: C

Watch Video Solution

29. VAM represents

A. Saprophytic fungi

B. Symbiotic fungi

C. Saprophytic bacteria

D. Symbiotic bacteria

Answer: B

Watch Video Solution

30. In manufacture of bread, it becomes porous due to release of CO_2 by the action of

A. Protozoans

B. Bacteria

C. Yeast

D. Viruses

Answer: C

Watch Video Solution

31. Cheese and Yoghurt are porduct of the porcess

A. Pasteurisation

B. Fermentation

C. Dehydration

D. Distillation

Answer: B

Watch Video Solution

32. The product of which of the following organsims has been commercialised as blood cholesterol lowering agent:

A. Trichoderma polysporum

B. Monascus purpureus

C. Saccharomyces cerevisie

D. Aspergillus niger

Answer: B

Watch Video Solution

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

A. Antibiotic

B. Antigens

C. Antibody

D. Antitoxin

Answer: A

Watch Video Solution

34. The technology of biogas production was developed in India through the efforts of

A. KVIS

B. IARI

C. Both A and B

D. WHO

Answer: C

Watch Video Solution

35. Supply of oxygen to the biogas plant will have

A. Positive effect

B. Negative effects

C. No effect

D. None of these

Answer: B

Watch Video Solution

36. They help in increasing soil fertility

A. Pseudomonas and cereals

B. Bacillus and Penicillium

C. Salvinia and Marsilea

D. Nostoc and legumes

Answer: D

Watch Video Solution

37. Biogas mainly consist of

A. Ethane

B. CO_2

C. H_2

D. Methane

Answer: D

Watch Video Solution

38. Bacillus thuringiensis is used to control

A. Insect pests

B. Nematodes

C. Bacterial pathogens

D. Fungal pathogens

Answer: A

Watch Video Solution

39. Penicillin was discovered by

A. Alexander Fleming

B. Waksman

C. Chain and Florey

D. Both A and B

Answer: A

Watch Video Solution

40. Yeast is employed for production of

A. Methanol

B. Ethanol

C. Butanol

D. Citric acid

Answer: B

Watch Video Solution

41. Aspergillus niger is used for for commerical and industrial production of :

A. Acetic acid

B. Butyric acid

C. Citric acid

D. Citric acid

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: C

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. b and c

B. a,b and e

C. a,b and c

D. a,d and e

Answer: D

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44. Baker's yeast is :

A. S. cerevisae

B. S.ludwigii

C. S. octosporus

D. Schizosaccharmyces

Answer: A

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45. Streptomyces griseus produces antibiotic

A. Terramycin

B. Chloramphenicol

C. Neomycin

D. Streptomycin

Answer: D

Watch Video Solution

46. Members of which of the following fungal genus mainly participate in the mycorrhiza formation

A. Frankia

B. Mucor

C. Glomus

D. Yeast

Answer: C

Watch Video Solution

47. Match the following:

a	Pectinases and Proteses	i	Blood cholesterol loweringagents
b	Streptokinase	ii	Immunosuppressive agents
c	Cyclosporin-A	iii	Clot-busters
d	Stain	iv	Clarifying agents

A. a-iv,b-iii,c-I,d-ii

B. a-iiv, b-iii,c-ii,d-i

C. a-I, b-ii, c-iii,d-i

D. a-iii,b-iv,c-ii,d-i

Answer: B

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48. Ganga Action Plan Yamuna Action Plan has intiated by

A. Indian Agricultural Research Institue (IARI)

B. Khadi and village Industries Commission (KVIC)

C. The Ministry of Environment and Forests(MOEF)

D. Both A and B

Answer: C

Watch Video Solution

49. Methanogenic bacteria are not found in

A. Bottom of water - logged paddy fields

B. Activated sludge

C. Gobar gas plant

D. Rumen of cattle

Answer: B

Watch Video Solution

50. Bottled juices are clarified by the use of

A. Pectinases

B. Peptidases

C. Lipases

D. Both A and B

Answer: A

Watch Video Solution

Others

1. Trichoderma harizianum has proved to be a useful microorganism for

A. Gene transfer in higher plants

B. Biological control of soil borne pathogens//biopestide

C. Bioremediation of contaminated soils

D. Reclamation of waste land

Answer: B

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2. Which is linked to discovery of Bordeaux mixture as fungicide ?

A. Downy mildew of Grapes

B. Loose amut of Wheat

C. Black rust of Wheat

D. Bacterial leaf blight of Rice

Answer: A

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3. Modern detergents contain enzyme preparations of

A. Thermoacidophiles

B. Thermophiles

C. Acidophiles

D. Alkaliphiles

Answer: D

Watch Video Solution

4. Which one is being tried in india as biofuel substitute for fossil fuels?

A. Jatropha

B. Musa

C. Aegilops

D. Azadirachta

Answer: A

Watch Video Solution

5. Which one is wrongly matched?

A. Detergents-lipase

B. Alcohol-Nitrogenase

C. Textile-amylase

D. Fruit juice-pectinase

Answer: B

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6. Which of the following is not used as a biopesticide ?

A. Xanthomonas campesteris

B. Bacillus thuringiensis

C. Trichoderma harzianum

D. Nucleopolyhedrovirus

Answer: A

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7. Which should be used for production of biothanol ?

A. Brassica

B. Zea mays

C. Jatropha

D. Pongamia

Answer: B

Watch Video Solution

8. An example of endomycorrhiza is

A. Glomus

B. Agaricus

C. Nostoc

D. Rhizobium

Answer: A

Watch Video Solution

9. Which one of the following is not used in organic farming ?

A. Earthworm

B. Oscillatoria

C. Snail

D. Glomus

Answer: C

Watch Video Solution

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

A. Bacillus thuringiensis

B. Glomus

C. Trichoderma harzianum

D. Baculovirus

Answer: C

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11. Gray biotechnology' is referred to :

A. Industrial process

B. Medical process

C. Agricultural process

D. Aquatic process

Answer: A

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12. Select the correct statement from the following

A. Methanobacterium is an aerobic bacterium found in rumen of cattle.

B. Biogas commonly called gobar gas is pure methane.

C. Activated sludge sediment in sttlement tanks of sewage treatment plant is rich sources of aerobic bacteria.

D. Biogas is produced by te activity of aerobic bacteria on animal waste.

Answer: C

Watch Video Solution

13. Biofertilizers include

A. Cow dung manure and farmyard waste

B. A quick growing crop ploughed back

C. BGA//Anabaena and Azolla

D. All of the above

Answer: C

Watch Video Solution

14. Which of the following is mainly produced by the activity of anaerobic bacteria on sewage

A. Laughing gas

B. Marsh gas

C. Mustard gas

D. Propane

Answer: B

Watch Video Solution

15. Secondary sewage treatment is mainly a

A. Chemical process

B. Mechanical process

C. Biological process

D. Physical process

Answer: C

Watch Video Solution

16. Continous addition of sugars in 'fed batch' fermentation is done to

A. Purify enzymesi,

B. Degrade sewage

C. Produce methane

D. ObtDain antibiotics

Answer: D

Watch Video Solution

17. Which one is wrongly matched?

A. Yeast - statins

B. Acetobacted aceti - Acetic acid

C. Aspergilus niger - Citric acid

D. Costridium butylicum - Lactic acid

Answer: D

Watch Video Solution

18. Which is a fungicide

A. DDT

B. Bordeaux mixture

C. 2,4 - D

D. DCMU

Answer: B

Watch Video Solution

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

A. Nostoc

B. Mycorrhiza

C. Agrobacterium

D. Rhizobium

Answer: C

Watch Video Solution

20. Which is incorrec about fermetation?

A. Toddy is prepared by fermenting palm sap.

B. Propionibacterium is used in fermentation of cheese.

C. Puffed up apperrance of dough is due to production of CO 。

D. Fermentation in muscles produces alcohol.

Answer: D

Watch Video Solution

21. Which one is correct?

A. Activated sludge is digested by anaerobic bacteria to produce marsh gas.

B. Aspergillus niger produces Cyclosporin - A.

C. Fleming, Chain and Florey were awarded Nobel Prize for penicillin.

D. BOD is amount of oxygen produced by bacteria during decomposition

Answer: C

Watch Video Solution

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

A. Trichoderma against certain plant pathogens.

B. Bt cotton to increase cotton yield.

C. Lady cotton to increase cotton yield.

D. Nucleopolyhedrovirus against white rust of Brassica.

Answer: A

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23. In gobar gas, the maximum amount is that of

A. Propane

B. Methane and hydrogen

C. Butane

D. Carbon dioxide

Answer: B

Watch Video Solution

24. Domestic sewage of large cities

A. Has very high amount of suspended solid and dissolved salts

B. When treated in sewage treatment plant does not riquire aeration

C. Has high BOD as it contains both aerobic and anaerobic bacteria

D. Is processed by aerobic and then anaerobic bacteria in secondary treatment in sewage treatment plant

Answer: D

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25. 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_6

C. Vitamin B_{12}

D. Vitamin B_{12}

Answer: C

Watch Video Solution

26. Read statement (a - d). How many of them are wrong?

Colosstrum is recommended for new born as it is rich

Colosstrum is recommended for new born as it is rich

Tissue culture is useful in obtaining virus free plants

Beer is obtained by distillation of fermented grape juice

A. Four

B. Three

C. Two

D. One

Answer: B

Watch Video Solution

27. A good producer of citric acid is :

A. Clostridium

B. Saccharomyces

C. Aspergillus

D. Pseudomonas

Answer: C

Watch Video Solution

28. During sewage treatment, biogases are produced which includes :

A. Hydrogen sulphide,methene,sulphur dioxide

B. Hydrogen sulphide,nitrogen,methane

C. Methane, hydrogen sulphide, carbon dioxide

D. Methane,oxygen,hydrogen sulphide

Answer: C

Watch Video Solution

29. What gases are produced in anaerobic sludge digestres

A. Hydrogen Sulphide and CO_2

B. Methane and CO_2 only

C. Methane, Hydrogen Sulphide and CO_2

D. Methane, Hydrogen Sulphide and CO_2

Answer: C

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30. Which of the antibiotics is not produced by one of the Monera (Streptomyces)?

A. Erythromycin

B. Penicillin

C. Streptomycin

D. Terramycin

Answer: B

Watch Video Solution

31. Match the following list of microbes and their importance

(a)	Saccharomyces cerevisiae	(i)	Production of immunosuppress
(b)	Monascus purpureus	(ii)	Ripening of Swiss cheese
(c)	Trichoderma polysporum	(iii)	Commercial production of etha
(d)	Propionibacterium sharmanii	(iv)	Production of blood-cholestrol

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

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

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

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

Answer: D

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32. Microbes which act as biofertilizers are

A. Free living nitrogen fixing bacteria - Rhizobium

B. Free living nitrogen fixing bacteria - Azospirillum

C. Mycorrhiza formed by the algae of the genus Glomus

D. Root nodule bacteria - Azotobacter fix atmospheric nitrogen in paddy fields

Answer: B

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33. The bacterium that help in breakdown of cellulose in the rumen of cattle is

A. Clostridium

B. Lactobacillus

C. Methanobacterium is an aerobic bacterium found in rumen of cattle

D. Escherichia

Answer: C

Watch Video Solution

34. Cyclosporin A, used as immunosuppressive agent in organ transplants is produced by

A. Trichoderma against certain plant pathogens.

B. Monascus

C. Streptococcus

D. Staphylococcus

Answer: A

Watch Video Solution

35. Yoghurt is produced with the help of

A. Lactobacillus bulgarius and Lactobacillus thermophilus

B. Lactobacillus thermophilus and Streptococcus thermophilus

C. Lactobacillus bulgarius and Streptococcus thermophilus

D. Lactobacillus kefr and Streptococcus thermophilus

Answer: C

Watch Video Solution

36. The Fungs used for commercial production ofcitric acd is

A. Clostridium

B. Saccharomyces

C. Aspergillus

D. Pencillium.

Answer: C

Watch Video Solution

37. Large holes in Swiss cheese are formed due to production of large amount of CO_2 by

A. Propionobacterium

B. Mycobacterium

C. Saccharomyces

D. Pencillium.

Answer: A

Watch Video Solution

38. Which of the following is wrongly matched in the given table ?

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39. Match Column I with Column II and select the correct 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. a-I,b-iv,c-ii,d-iii

B. a-iii,b-iv,c-I,d-ii

C. a-iii,b-I,c-ii,d-iv

D. a-iii,b-i,d-ii,c-iv

Answer: D

Watch Video Solution

40. Which of the following in sewage treatement removes suspended solids.

A. Secondary treatment

B. Primary treatment

C. Sludge treatment

D. Tertiary treatment

Answer: B

Watch Video Solution

41. Conversion of milk to curd improves its nutritional value of increasing the amount of

A. Vitamin D

B. Vitamin A

C. Vitamin B_{12}

D. Vitamin E

Answer: C

Watch Video Solution

42. Pullorum disease of poultry is caused by

A. Mycobacterium

B. Salmonella

C. Clostridium

D. Hemophilus

Answer: B

Watch Video Solution

43. Cyclosporine is used as:

A. for allergy

B. as immunodepressant

C. prophylacticfor virus

D. none of the above

Answer: B

Watch Video Solution

44. People recovering from long illness are often advised to include the alga Spiruline in their diet because it:

A. makes the food easy to digest

B. is rich in proteins

C. has antibiotic properties

D. restores the intestnal microflora

Answer: B

Watch Video Solution

45. People recovering from long illness are often advised to include the alga Spiruline in their diet because it:

A. makes the food easy to digest

B. is rich in proteins

C. has antibiotic properties

D. restores the intestnal microflora

Answer: B

Watch Video Solution

46. Which one of the following antimicrobial drugs is suitable for treatment of both tuberculosis and leprosy?

A. Isoniazid

B. R -aminosalicylic acid

C. streptomycin

D. Rifampicin

Answer: D

Watch Video Solution

47. Which of the following is the pair of biofetilizers?

A. Azolla and BGA

B. Nostoc and legume

C. Rhizobium and grasses

D. Salmonella and E.coli

Answer: A

Watch Video Solution

48. Chloramphenicol and erythormycin (broad spectrum antibiotics) are produced by

A. Streptomyces

B. Nitrobacter

C. Rhizobium and grasses

D. Penicillium

Answer: A

Watch Video Solution

49. A patient brought to a hospital with myocardial infraction is normally immediately given

A. Penicillin

B. Streptokinase

C. Cyclosporin - A

D. Statins

Answer: B

Watch Video Solution

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

A. Mucor

B. Glomus

C. Trichoderma harzianum

D. Rhizobium

Answer: C

Watch Video Solution

51. Biological control agent is obtained from

A. Bacillus thuringiensis

B. E. coli

C. Agrobacterium tumefaciens

D. Meloidogyne incognito

Answer: A

Watch Video Solution

52. Which one of the following statement regarding BOD is true?

A. The greatr the BOD ofwaste water, more is its polluting potential.

B.

C.

D.

Answer: A

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53. 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

Watch Video Solution

54. Assertion : Yeast such as Saccharomyces cervisiae are used in banking industry.

Reason : Carbon dioxide produced during fermentation causes bread dough to rise by thermal expansion.

A. If both assertion and reason are true and the reason is a correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If the assertion is true but reasonis false.

D. If both the assertion and reason are false.

Answer: A

Watch Video Solution

55. Assertion: vitamins B_2 is found in cereals, green vegetables, Brewer's yeast, egg white, milk and liver.

Reason: It can be commercially produced by some yeasts.

A. If both assertion and reason are true and the reason is a correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If the assertion is true but reasonis false.

D. If both the assertion and reason are false.

Answer: B

Watch Video Solution

56. Assertion : Curdling is required in the manufacture of cheese.

Reason : Lactic acid bacteria are used for the purpose.

A. If both assertion and reason are true and the reason is a correct explanation of the assertion.

B. If both assertion and reason are true but reason is not the correct explanation of the assertion.

C. If the assertion is true but reasonis false.

D. If both the assertion and reason are false.

Answer: B

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