

Questionbank Biology

Unit -VIII**Chapter-10. Microbes and Human Welfare****IMPORTANT POINTS**

Virus, bacteria, fungi, algae, protozoan are microscopic in size hence known as microbes or microorganism. These are harmful as well as useful to human being. They are found in all types of habitats.

They are exploited in different fields by modern technology. Bacteria and fungi are used in making household products such as curd, dosa and idli, bread, beverages etc. Different types of pharmaceutical products are the result of reaction done by microbes. They produce antibodies, carbon dioxide, alcohol, enzymes, protein, steroids etc. Microbes are important in fuel energy production.

Sewage treatment plants and biogas plants are possible due to such of microbes only. Biogas is a mixture of methane, CO_2 , and which are used in fuel energy.

Bacteria, fungi, algae, virus are used in biocontrol and biofertilisers in agriculture. We should use such chemical instead of synthetic artificial chemical in our life cycle.

- Which organisms are useful for the knowledge of biotechnology and genetic engineering ?
(a) Animals (b) Plants
(c) Micro Organism (d) None of them
- Which bacteria gives protection against gastric injury ?
(a) Methenogins (b) Lacto Bacillus
(c) Lacto Cocas (d) Lacto Strepto
- Which micro-organism are useful in fermentation of dough for the idli and dhosa ?
(a) Bacteria (b) Protozua
(c) Fungus (d) Virus
- Which is useful to obtain acetic acid ?
(a) Aspergillus niger (b) Clostridium Butirycun
(c) Acetobactor aceti (d) Saech arhomyces Cerreui Siae
- Which is one correct for the amino acid ?
(a) L-melic acid (b) L-Lycin
(c) L-aluconic Acid (d) (a) & (c) both
- Which is useful to remove the oily stains in laundry ?
(a) Renin (b) Protease (c) Amaylase (d) Lipase
- Which one correct option for fermentation ?
(a) To prepare pickle from vegetable and savour fruits
(b) To prepare food for cattle
(c) To prepare some vitamins
(d) In production of some Enzymes

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8. Which is useful to remove weeds in agriculture ?
(a) Pesticides (b) Weedicide (c) Fungicide (d) Insecticides
9. Which metabolic process is performed by bacteria in biogas plant ?
(a) Aerobic Respiration (b) Cellular Respiration
(c) Anaerobic Respiration (d) Internal Respiration
10. IARI means.....
(a) India Agriculture Research Institute
(b) International Agrochemical Research Institute
(c) Indian Agrochemical Research Institute
(d) Indian Agriculture Resource Institute
11. Which organism is useful to form biofertiliser ?
(a) Glomus (b) Cyanobacteria
(c) Azospirillum (d) All the given
12. Which organic compound is useful to prepare Ensilage ?
(a) Vitamin (b) Protein
(c) Lipid (d) Carbohydrates
13. Which one is produced by the help of *Arebia gossypae* ?
(a) Riboflavin (b) Steroids (c) Statins (d) Lycin
14. Which is irrelevant for mycorrhiza ?
(a) Absorb of phosphorous (b) Increase Immunity
(c) Fixation of Free N₂ (d) Protectes against salinity and draught
15. Which group is true for the Enzymes of micro organism ?
(a) Amylase, Protease, Lipase, Protease.
(b) Glycin, Renin, Lipase, Melic Acid
(c) Lipase, Protease, Lipase, Amylase
(d) Glyconic acid, protease, Lipase, Amylose
16. Which fungus is useful to prepare bread ?
(a) *Rhizopus nigricans* (b) *Saecharhomyces Cerrevisiae*
(c) *Clostridium Butiryum* (d) *Asper Gillus Niger*
17. Find odd sentences out :-
(a) Ethenol is used as a fuel in Brazil.
(b) Toddy is prepared from palm tree in north India.
(c) Micro organism are useful to prepare enzymes, protienes and steriods.
(d) Penicillin is prepared from penicillium notatum.
18. Which micro organism is useful to obtain short chain fatty acids ?
(a) *Saecharhomyces Cerrevisiae* (b) *Azeto bacter aciti*
(c) *Clostridium butiryum* (d) *Aspergillus niger*

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19. My chorrhiza means.....
- (a) Symbiosis between fungus and plants
 - (b) Symbiosis between plant and bacteria
 - (c) Symbiosis between algae and fungus
 - (d) Symbiosis between michorrhiza of fungus of water and bacteria
20. In production of which carbonic acid, *Aspergillus niger* is useful ?
- (a) Citric acid
 - (b) Butyric acid
 - (c) Acetic acid
 - (d) Palmitic acid
21. Which one is related with steriods ?
- (a) Citric acid
 - (b) Butyric acid
 - (c) Acetic acid
 - (d) Palmitic acid
22. Which is used to prevent blood clotting in blood vessels ?
- (a) Steriods
 - (b) Cyclo sporin-A
 - (c) Streptokinase
 - (d) Stetins
23. Which is to be used in production of swiss cheese ?
- (a) *Monoscus Purpureus*
 - (b) *Clostridium bacterium*
 - (c) *Lacto Bacillus*
 - (d) *Saecharhomyces Cerrevisiae*
24. Which option is related with the utility of lectic acid ?
- (a) In fermantation, to prepare pickle
 - (b) useful for preparing curd from milk
 - (c) To increase the quality of vitamin B₁₂
 - (d) All the given.
25. Which one is useful as a immunosuppressive agent in organ transplant ?
- (a) Cyclosporin-C
 - (b) Cyclosporin-L
 - (c) Cyclosporin-A
 - (d) All the given
26. Which bacteria is useful for purification in sewage treatment ?
- (a) Hetrotrofs
 - (b) Symbiont
 - (c) Free living
 - (d) Parasist
27. Which assertion is correct ?
- (a) There is role of ministry of forest and environment in developing biogas technology.
 - (b) Micro organism are used as a bio control agent by IARI.
 - (c) Biofertilisers are used over chemical fertilizer to redused pollution.
 - (d) Chemical fertiliser are used to form biofertiliser.
28. To which, function baculo virus is involve ?
- (a) Produces deases some arthropods and insect.
 - (b) Produces deases in todes neme.
 - (c) Produces deases in fungus.
 - (d) Produces Insectisides.
29. Which one is related with monoscus pupurous ?
- (a) Streptokinase - To prevent blood clotting.
 - (b) Cyclosporin- A - Immunosuppresser
 - (c) Stetins - Decreases the cholesterole in blood
 - (d) All the given

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30. Full form of BOD.
(a) Biological Oxygen Demand (b) Bio Oxygen Demand
(c) Biochemical Oxygen Demand (d) Biochemical Oxygen Degreadable
31. Which is the group of autotroph micro organisms ?
(a) Anabaena, Nostoc, Glomus, Trichoderma
(b) Aceletoria, Anabaena, Cynobacteria, Rhizopus.
(c) Nostoc, Aspergillus, Anabaena, Rhizopus
(d) Acelatoria, Anabaena, Nostoc, Cynobacteria.
32. By which process floating debris and grit are removed in STPs respectively ?
(a) Filtration and Sedimentation (b) Filtration and Distilation
(c) Sedimentation and Filtration (d) Only Filtration
33. Which is useful to control Nematodes in cearel crops ?
(a) Bionemotocides (b) Fungicides (c) Weedicides (d) Incecticeides
34. Which sentence is odd ?
(a) Progesteron is useful as a immuno suppressor
(b) Stetins is useful to reduce cholesterole
(c) Streptokines is useful to prevent blood clotting
(d) Lipase is useful to remove oily stains
35. Which micro organism is involved in flocks as well as in michorrhiza ?
(a) Bacteria (b) Virus (c) Fungus (d) Algae
36. Find odd group out :-
(a) Carbomycin, bactitracin, tetracytidine, fumagillin
(b) Butaric acid, Isotric acid, Lectic acid, Melic acid
(c) Amylase, Protease, Lipase, Csellulase
(d) Glucomylase, Renin, Glucose Oxicide
37. Which pest is obtained from Pseudononas ?
(a) Quantum-400 (b) Quantum-4000 (c) Quantum-40000 (d) Quantum-40
38. Which organism is useful to prepare Alcohol ?
(a) Saccherohmy Ceribicie (b) Streptomycis Saccheromysis
(c) Streptococus cerbicie (d) Saccherohmycis Cerevisiae
39. Which pair is odd ?
(a) Rhizobium-Symbiotic bacteria (b) Glamus-Symblotic fungus
(c) Trichoderma-Free living bactaria (d) Azatobector-Free living bactaria
40. Which is correct sequence for purification process of STPs ?
(a) Primary Sludge → Effluent → Flocks → Active Sludge → Biogas
(b) Flocks → Primary Sludge → Effluent → Active Sludge → Biogas
(c) Primary Sludge → Effluent → Active Sludge → Flocks → Biogas
(d) Effluent → Flocks → Primary Sludge → Active Sludge → Biogas

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41. Which product is synthesized by micro organism at commercial level for mankind ?
(a) Vaccine (b) Biofuel (c) Alcohol (d) All the given
42. Effluent means....
(a) Water remaining under the primary sludge.
(b) Solid compounds of the sedimentation
(c) Water remaining over the primary sludge
(d) Flocks forms from the primary sludge.
43. Which group of micro organism is useful as a bio control agent ?
(a) Cyanobacteria, Bacula virus, Trichoderma
(b) Trichoderma, Psuedomonas, Bacillus Thuringiensis
(c) Rhizobium, Cyanobacteria, Psuedomonas
(d) All the given
44. Which gases are there in biogas ?
(a) CH_4 , CO_2 , H_2S (b) CH_3 , CO_2 , H_2S
(c) CH_2 , CO_2 , H_2S (d) CH_3 , CO_2 , H_2S
45. Which bacteria are useful in anaerobic sludge digester tank ?
(a) Hypogeal (b) Aerobic (c) Free living (d) Anaerobic
46. Which one correct for the free living and symbiotic fungus ?
(a) Glomus and Rhizopus (b) Glomus and Azospirillum
(c) Trichoderma and Rhizopus (d) Trichoderma and Azospirillum
47. Formation of flocks means....
(a) Association of virus with the bacteria remains in water
(b) Bacteria which associated with the mycorrhiza of the fungus of water
(c) Bacteria which associated with the mycorrhiza of the fungus of soil
(d) Bacteria which associated with the solid waste of the water
48. In which tank flocks is sedimented and forms respectively ?
(a) Settling tank, Aeration tank (b) Aeration tank, Effluent tank
(c) Aeration tank, Settling tank (d) Effluent tank, Anaerobic tank
49. Who has established Ganga nad Yamuna action plan ?
(a) IARI (b) KVIC
(c) Ministry of forest and Environment (d) Integrated pest control management
50. What is sedimented flocks ?
(a) Passive sludge (b) Primary sludge (c) Active sludge (d) None of them
51. Which statement is correct for STPs ?
(a) Value of BOD is decrease in effluent. (b) Flocks is sedimented in settling tank.
(c) At end of process biogas is formed. (d) All the given
52. Which odd for mixed gases which produces in anaerobic sludge digester ?
(a) CO_2 (b) CH_4 (c) H_2S (d) CH_3

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53. Which bacteria is remain in alimentary canal of herbivorus ?
(a) Azetobactor (b) Methenogens (c) Azospirillum (d) Bacillus
54. Which biological process will take place in STPs ?
(a) Flocks (b) Filtration (c) Sedimentation (d) (b) & (c) both
55. What is indirectly called the measurment of organic matter of water ?
(a) BOD (b) DOB (c) COD (d) DOC
56. From which compound methane gas is produced by bacteria ?
(a) lipase (b) Amylase (c) Cellulase (d) Protease
57. Which gas will produced in anearobic sludge digesteres ?
(a) CO₂ (b) H₂S (c) CH₄ (d) All the given
58. Which micro organism is irrelevant as a biocontrol agent ?
(a) Virus (b) Bectaria (c) Algae (d) Fungus
59. Which scientist has invented Antibodies ? (KCET 2004)
(a) Ernest chain (b) Howard Florey (c) Alexander Fleming (d) W.Fleming
60. Which bacterial group is useful in biogas production ? (JIPMER 2000)
(a) Rhizobium (b) Methanogens
(c) Argonotrocs (d) Eubectaria
61. Which symbiotic bacteria is N₂ fixative with the root nodule of leguminious plant ? (AFMC 1998)
(a) Azospyrillum (b) Clostridium (c) Azotobactor (d) Rhizobium
62. Which living organism works as bio-fertiliser ? (PMT 1998)
(a) Azzola (b) Clostridium (c) Azotobactor (d) Rhizobium
63. Which micro organism is useful in production of citric acid ? (CBSEPMPT 1995)
(a) Azotobactor (b) Penicillium (c) Asperzilus niger (d) Clostridium
64. By which process cheese and toddy is obtained ? (PMT 1998)
(a) Fermantation (b) Distillation (c) Pasuirisation (d) Hydrolisis
65. To which BOD is related ? (MP MPT 2002)
(a) Microbes and organic matters (b) Organic compound
(c) Microbes (d) None of them
66. Which organism is useful to produce Riboflavin ? (CBSEPMPT 1999)
(a) Arabia hossipae (b) Saccharhomyces Cervisiae
(c) (a) & (b) both (d) None of them
67. Bacillus thuringiensis is useful in.... (CBSEPMPT 2005)
(a) Bio fertiliser (b) Biometalogical (c) Biotoxic plant (d) Bio product plant
68. Bio fertilizer means.....
(a) Crop which shows rapid growth (b) Cow dung and agricultural west
(c) prepared by Anabaena and Nostoc (d) None of them

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69. Which pair is correct ? (Kerala PMT 2007)
1 - Cynobacteria - Bio pesticides
2 - Mycorrhiza - Absorption of phosphorus
3 - Bacillus thuringiensis - toxin
4 - Single cell protein - Rhizobium
(a) 2 (b) 3 (c) 1 (d) 4
70. Which pair is odd ? (CBSE PMT 2007)
(a) Yeast - Ethanol (b) Penicillium - Penicillin
(c) Methanogens - Biogas (d) Streptococcus - Strep
71. What is value of BOD of sewage water in comparison to normal water ?
(a) More (b) Less (c) Normal (d) Zero
72. Which pair is correct ? (AIIMS 2003)
(a) Rhizobium - Parasites of leguminous plant (b) Mycorrhiza - Absorption of Phosphate
(c) Yeast - Biogas production (d) Nostoc - Biofuel
73. According to latest news BT cotton is widely cultivated, in that Bt cotton means....
(a) Bigger thread variety
(b) Cotton seeds treated with Barium
(c) Produced by biotechnological enzymes restriction endonucleases
(d) Contains Endotoxin gene of B.T.
74. Which are the main components of biogas ?
(a) $\text{CH}_4 + \text{CO}_2 + \text{N}_2$ (b) $\text{CO}_2 + \text{H}_2\text{O}$
(c) $\text{CH}_3 + \text{O}_2$ (d) $\text{CO}_2 + \text{H}_2$
75. Azospirillum and Azotobacter for example of.....
(a) Decomposers (b) Free living N_2 fixative
(c) Symbiotic N_2 fixative (d) Pathogen
76. How is ethanol produced in industrial field ?
(a) Saccharomyces (b) Clostridium
(c) Aspergillus (d) Streptomyces
77. Which option provides fertilizer as well as energy ?
(a) Rhizobium (b) Biogas
(c) Fuel Plant (d) All the given
78. Which one is true information for toxin Bt ?
(a) Bt protein contains active toxins in bacillus
(b) Active toxin enters into the ovary of insects and makes it sterile so as to stop the reproduction.
(c) Bacillus contains antitoxin material
(d) Toxin enters into the alimentary canal of insects which results lethal for the insect.

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79. By BOD which one is to be measured ?
- Amount of organic matters of water.
 - Industrial waste of water Resources.
 - Amount of co which connected with Hb.
 - Amount of required O₂ for dark reaction of green plants.

Column Type Questions

80. Match the following

Column-I

- (P) Cyclosporin-A
 (Q) Hydroxi Projegteron
 (R) Stetins
 (S) Riboflavin
 (a) (P-iv) (Q-ii) (R-i) (S-iii)
 (c) (P-iii) (Q-i) (R-ii) (S-iv)

Column-II

- (i) Rhizopus nigricans
 (ii) Monoscus Purpureus
 (iii) Arebia Gossipi
 (iv) Trhichoderma polysporum
 (b) (P-iii) (Q-i) (R-ii) (S-iv)
 (d) (P-iii) (Q-i) (R-iii) (S-ii)

81. Match the following

Column-I

- (P) Aspergillus niger
 (Q) Clostridium butiricum
 (R) Azatobactor
 (S) Lactobacillus
 (a) (S-i) (P-ii) (Q-iii) (R-iv)
 (c) (R-i) (P-ii) (Q-iii) (S-iv)

Column-II

- (i) Butyric acid
 (ii) Acetic acid
 (iii) Lactic acid
 (iv) Citric acid
 (b) (Q-i) (R-ii) (S-iii) (P-iv)
 (d) (P-i) (Q-ii) (S-iii) (S-iv)

82. Match the following

Column-I

- (P) Cynobacteria
 (Q) Pseudomonas
 (R) Rhizobium
 (S) Methenogens
 (a) (R-i) (S-ii) (Q-iii) (P-iv)
 (c) (R-i) (P-ii) (S-iii) (Q-iv)

Column-II

- (i) N₂-fixation
 (ii) Biogas
 (iii) Biofertilisersin peddy fields
 (iv) Quantam-4000
 (b) (S-i) (Q-ii) (P-iii) (R-iv)
 (d) (R-i) (S-ii) (P-iii) (Q-iv)

83. Match the following

Column-I

- (P) Blue green Algae
 (Q) Baculo virus
 (R) Bacillus thariengensis
 (S) Trichoderma
 (a) (Q-i) (R-ii) (S-iii) (P-iv)
 (c) (Q-i) (P-ii) (R-iv) (S-iii)

Column-II

- (i) Pathogenes effect some arthropods
 (ii) Increase organic matters in soil
 (iii) Bio control
 (iv) Produced toxin
 (b) (P-i) (Q-ii) (R-iii) (S-iv)
 (d) (R-i) (S-ii) (P-iii) (Q-iv)

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84. Match the following

Column-I

- (P) Streptokinase
 (Q) Penicillin
 (R) Stetins
 (S) Cyclosporin-A
 (a) (P-i) (Q-ii) (R-iii) (S-iv)
 (c) (R-i) (P -ii) (Q-iii) (S-iv)

Column-II

- (i) To prevent blood clotting
 (ii) To decrease cholesterol
 (iii) Immuno suppressor
 (iv) Anti biotic
 (b) (P-i) (R-ii) (S-iii) (Q-iv)
 (d) (S-i) (r-ii) (P-iii) (Q-iv)

85. Match the following

Column-I

- (P) BOD
 (Q) Flocks

 (R) Encilage
 (S) Biogas
 (a) (R-i) (Q-ii) (P-iii) (S-iv)
 (c) (P-i) (S-ii) (R-iii) (Q-iv)

Column-II

- (i) Food for cattle
 (ii) Association of Bacteria and filaments of mold in water
 (iii) Measure of the organic matter in a water
 (iv) Anaerobic metabolism on biowaste
 (b) (Q-i) (R-ii) (S-iii) (P-iv)
 (d) (S-i) (P-ii) (S-iii) (R-iv)

86. Match the following

Column-I

- (P) Rhizobium
 (Q) Anabaena
 (R) Azotobacter
 (S) Glomus
 (a) (P-i) (Q-ii) (R-iii) (S-iv)
 (c) (P-iii) (Q-i) (R-ii) (S-iv)

Column-II

- (i) Leguminous
 (ii) Autotroph N_2 -fixative
 (iii) Freelifving N_2 -fixative
 (iv) Phosphorus absorption
 (b) (Q-i) (P-ii) (R-iii) (S-iv)
 (d) (P-i) (Q-ii) (R-iv) (S-iii)

Statement (A) and Reason (R) Type Question

- (a) Both A and R are true and R is correct explanation of A.
 (b) Both A and R are true but R is not correct explanation of A.
 (c) A is true but R is false.
 (d) A is false but R is true.

87. A :- Lab improves quality of vitamin- B_{12}

R :- Lactobacillus bectaria produces lactic acid.

- (a) (b) (c) (d)

88. A :- Cyclosporin-A is used as an Immunosuppressiore.

R :- Cyclosporin-A is obtained from Trichoderma.

- (a) (b) (c) (d)

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89. A :- Encilage is food for cattle.
R :- Encilage is produced by fermentation of protein of green plant tissue.
(a) (b) 0 (c) (d)
90. A :- Dung of cattle is used to produce biogas.
R :- There are large number of methanogenic bacteria in dung of cattle.
(a) (b) (c) (d)
91. A :- As an alternative to chemicals, biochemicals are produced through biocontrol agent.
R :- Using biochemicals, natural balance is maintained.
(a) (b) (c) (d)
92. A :- Photosynthetic bacteria produce N_2 .
R :- Bacteria are able to convert solar energy into chemical energy.
(a) (b) (c) (d)
93. A :- Protease enzymes are produced by microorganisms.
R :- Bacterial enzymes are used to remove oily stains in laundry.
(a) (b) (c) (d)
94. A :- Aerobic bacteria form flocks by associating with microorganisms.
R :- Upper free water which remains over primary sludge is called effluent.
(a) (b) (c) (d)
95. A :- BT is useful to control pest of crops.
R :- Some species of fungus also use as a pest control.
(a) (b) (c) (d)
96. A :- Trichoderma absorbs phosphorus for the plant.
R :- Quantum-4000 is obtained from *Pseudomonas*.
(a) (b) (c) (d)
97. A :- L-Lysine is kind of amino acid.
R :- Pickles are the result of citric acid fermentation of fruits like citrus and vegetables.
(a) (b) (c) (d)

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ANSWER KEY

1	C	26	A	51	D	76	C
2	B	27	C	52	D	77	B
3	A	28	A	53	B	78	D
4	C	29	C	54	A	79	A
5	B	30	C	55	A	80	C
6	D	31	D	56	C	81	B
7	D	32	A	57	D	82	D
8	B	33	A	58	C	83	C
9	C	34	A	59	C	84	B
10	A	35	C	60	B	85	A
11	D	36	B	61	D	86	A
12	D	37	B	62	A	87	B
13	A	38	D	63	C	88	B
14	C	39	C	64	A	89	C
15	C	40	A	65	B	90	A
16	B	41	D	66	A	91	A
17	B	42	C	67	C	92	D
18	C	43	B	68	C	93	C
18	A	44	A	69	B	94	B
20	A	45	D	70	D	95	B
21	C	46	B	71	A	96	D
22	C	47	B	72	B	97	C
23	B	48	A	73	D		
24	D	49	C	74	A		
25	C	50	C	75	B		

