

14. What should be the temperature of compost when spawning is done ?
 a) 15 to 20°C b) 22 to 25°C
 c) 30 to 35°C d) Not certain.
15. Heterocysts are :
 a) Biological fertilizers
 b) Biofertilizers
 c) Specialized cells for nitrogen fixation.
 d) Enzymes required for nitrogen fixation
16. Biological fertilizers are obtained from
 a) Plants
 b) Animals
 c) Plant and animal residues
 d) All of the above.
17. What should be the pH of casing soil ?
 a) 4 b) 7
 c) 9 d) Any.
18. Rhizobium enters the plant through
 a) Leaf b) Stem
 c) Flower d) Root hair
19. In which of the following stages of development mushrooms should be picked?
 a) Button stage.
 b) Cup stage
 c) Flats or open stage
 d) In any stage.
20. Symbiotic biofertilizer is :
 a) Nitrosomonas b) Rhizobia
 c) Azotobacter d) Azospirillum
21. Biofertilizers are
 a) Urea b) Potassium
 c) Micro-organism d) None of these.
22. Mushroom is a _____
 a) Parasite b) Saprophyte
 c) Autotroph d) Symbiont.
23. The compound required by Rhizobium to fix atmospheric nitrogen is called
 a) Lectins
 b) Alkaloids
 c) Glycoside
 d) Leghaemoglobin
24. A mature fruiting body of mushroom has following parts
 a) Stipe
 b) Pileus
 c) Both a and b
 d) None from above.
25. BGA are used as biofertilizer in :
 a) Rice field b) Wheat field
 c) Sugarcane field d) Legume field
26. BGA secrete
 a) Uric acid
 b) Indole acetic acid
 c) Alcohol
 d) Antibiotic
27. The characters of poisonous mushroom are
 a) Pink spores
 b) Brightly coloured
 c) Hot burning taste
 d) All the above.
28. The composition of Rhizobium biofertilizer is
 a) Peat + garden soil + Charcoal + Rhizobia culture
 b) Lignite + garden soil + FYM + Rhizobia culture
 c) Both a and b
 d) peat + garden soil + cow dung + Rhizobia

Ans -

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|----------|----------|----------|
| (14 - b) | (15 - c) | (16 - d) |
| (17 - b) | (18 - d) | (19 - a) |
| (20 - b) | (21 - c) | (22 - b) |
| (23 - d) | (24 - c) | (25 - a) |
| (26 - b) | (27 - d) | (28 - c) |

43. In which of the following parts of Azolla is Anabena present ?
 a) Leaf cavities b) Stem cavities
 c) Stomata d) Nodules
44. Agaricus bisporus can grow in _____
 a) Tropical region
 b) Temperature region
 c) Any type
 d) Desert.
45. Oscillatoria a cyanobacterium yet isti not used as biofertilizer because :
 a) Its rate of growth is slow
 b) It releases toxins in water
 c) It does not fix nitrogen
 d) It absorbs nutrients and competes with crop plants.
46. A symbiotic nitrogen fixing bacteria is
 a) Rhizobium b) Azotobacter
 c) Anabaena d) Azolla.
47. Which mushroom is less poisonous out of following ?
 a) Amanita phalloides
 b) Amanita muscaria
 c) Russia emitica
 d) All of the above.
48. Azotabacter biofertilizers are preferred over Rhizobium biofertilizer because
 a) They are not host specific
 b) They are cost effective
 c) Azotobacter can be easily cultured
 d) They add more organic matter to soil
49. Mushrooms contain _____ amount of protein
 a) 100 % b) 10 %
 c) Negligible d) 20 - 40 %
50. Free living nitrogen fixing bacteria are:
 a) Azotobacter b) Clostridium
 c) Both 'a' and 'b' d) None of these.
51. An asymbiotic blue-green algae is
 a) Anabaena b) Azolla
 c) Nostoc d) All of these.
52. Wild mushrooms grow during -
 a) Rainy season
 b) Summer
 c) Any time
 d) In the month of October.
53. The scientific name of Adulsa is
 a) Adhatoda vasica
 b) Malbar nut tree
 c) Adhatoda zeylanica
 d) Both a and c
54. Nitrogen fixation by Rhizobium takes place in the
 a) Soil
 b) Root cells
 c) Root nodules
 d) Cortex of the root
55. Which of the following used as biofertilizers in paddy ?
 a) Non - symbiotic and symbiotic cyanobacteria.
 b) Symbiotic and non-symbiotic bacteria.
 c) Only symbiotic bacteria
 d) Only non-symbiotic cyanobacteria

Ans -

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|----------|----------|----------|
| (43 - a) | (44 - b) | (45 - c) |
| (46 - a) | (47 - c) | (48 - a) |
| (49 - d) | (50 - c) | (51 - c) |
| (52 - a) | (53 - d) | (54 - c) |
| (55 - a) | | |

73. **Aloe is composed of**
 a) Barbaloin + Isobarbaloin + Aloe-emadine
 b) Barbaloin + Aloe - emadine
 c) Barbalion + Caryophyllene
 d) Barbaloin + Isobarbaloin
74. **Which of the following statement is true?**
 a) Normal soil is suitable for growth of mushrooms.
 b) Mushrooms can be cultivated on all types of soil.
 c) Mushrooms can be cultivated in particular type of soil and at particular temperature only
 d) Mushrooms can not be cultivated in south India as the temperature is more
75. **Choose the plant which gives quick relief from bronchitis :**
 a) *Ocimum* b) *Adhathoda*
 c) *Aloe* d) *Azadirachta*.
76. **Root nodules are pink colour due to**
 a) Nitrogenase
 b) Leghaemoglobin
 c) Meristematic cells
 d) All of these.
77. **Which of the following is a good compost ?**
 a) Compost with offensive smell
 b) Wet compost
 c) Compost with pH₄
 d) Compost with pH₇ and without smell of ammonia.
78. **Which are the two main products obtained from aloe vera ?**
 a) Aloe + Aloe pulp
 b) Aloe + Aloe gel
 c) Aloe gel + Aloe powder
 d) Both b and c
79. **What is the period between two 'flushes' of mushroom crop?**
 a) 3 to 4 days
 b) one to two months
 c) 7 to 10 days
 d) Not certain
80. **'Aloin' is used to cure :**
 a) Eye troubles b) Ear ache
 c) Headache d) Stomachache.
81. **Rhizobium enters in the root through**
 a) Root cap b) Root hair
 c) Lenticel d) Cortex.
82. **Root nodules for nitrogen fixation of a non leguminous tree posses _____**
 a) Frankia b) Rhizobium
 c) Azotobacter d) Thiobacillus
83. **The scientific name of Tulsi is**
 a) *Aloe vera*
 b) *Asparagus racemosus*
 c) *Ocimum sanctum*
 d) *Azadirachta indica*
84. **Out of the following medicinal plants which is a 'tree'?**
 a) *Ocimum* b) *Asparagus*
 c) *Azadirachta* d) *Aloe*.
85. **The bitter component in margosa is :**
 a) Aloin b) Elio
 c) Nimbidin d) Vasicine.
86. **On entering the bacterium, the root hair of leguminous plant is**
 a) Degenerated b) Deactivated
 c) Curled d) None of these.

Ans -

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|----------|----------|----------|
| (73 - a) | (74 - c) | (75 - b) |
| (76 - b) | (77 - d) | (78 - b) |
| (79 - c) | (80 - a) | (81 - b) |
| (82 - a) | (83 - c) | (84 - a) |
| (85 - c) | (86 - c) | |

103. Root's juice of *Asparagus* is mixed with _____ and used in treatment of cracks in foot
 a) Turmeric b) Cold water
 c) Sugar d) Wax
104. The medicinal plant which belongs to family *Meliaceae* is _____
 a) *Azadirachta indica*
 b) *Ocimum sanctum*
 c) *Asparagus racemosus*
 d) *Adathoda vasica*
105. *Azadirachta indica* belongs to :
 a) Solanaceae b) Liliaceae
 c) Acanthaceae d) Meliaceae.
106. Which species of *Rhizobium* forms root nodule in the pea plant ?
 a) *R. japonicum*
 b) *R. leguminosarum*
 c) *R. phaseoli*
 d) None of these.
107. The study of action of drugs is called _____
 a) Pharmacology b) Mycology
 c) Pathology d) Phycology
108. The active principle in neem azadirachtin belongs to the class of
 a) Alkaloids b) Essential oil
 c) Saponins d) Terpenoids
109. Nodulated roots are found in
 a) Mango b) Pulses
 c) Apple d) Mustard
110. The bacteria which directly convert atmospheric nitrogen in to nitrogen compounds are called :
 a) Denitrifying bacteria
 b) Nitrogen fixing bacteria
 c) Putrefying bacteria
 d) Ammonifying bacteria.
111. Leguminous plant and bacterium *Rhizobium* shows.
 a) Parasitic association
 b) Saprophytic association
 c) Symbiotic association
 d) Asymbiotic association.
112. Which one of the a neem product is used as insect repellent ?
 a) Rotenone b) Endrin
 c) Parathion d) Azadirachtin.
113. The bark of neem contains
 a) Nimbin + Nimbinin + Nimbidin
 b) Nimbin + Nimbidin + Nimbinin + Margosine
 c) Nimbin + Margosine
 d) Nimbinin + Nimbidin
114. Some blue green algae can be used as biofertilizers because
 a) They are photosynthetic
 b) They have mucilage
 c) They grow everywhere
 d) They fix nitrogen.
115. Pigment leghaemoglobin acts as
 a) Nitrogen carrier
 b) Oxygen carrier
 c) Nitrogenase activator
 d) *Rhizobium* carrier.
116. In casing soil can be replaced by
 a) Cow dung + clay-loam soil
 b) Compost + clay-loam soil
 c) Lime + Peat
 d) All of the above.

Ans -

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|-----------|-----------|-----------|
| (103 - d) | (104 - a) | (105 - d) |
| (106 - b) | (107 - a) | (108 - b) |
| (109 - b) | (110 - b) | (111 - c) |
| (112 - d) | (113 - a) | (114 - d) |
| (115 - b) | (116 - b) | |

132. Which one is a biofertilizer ?

- a) VAM b) Sporeine
c) Devine d) Agent orange.

133. Mushroom cultivation was started first in

- a) England b) France
c) Germany d) China

134. Yield of paddy field can be increased by application of

- a) Iron bacteria
b) Nostoc / Anabaena
c) Archaeobacteria
d) Symbiotic bacteria.

135. Spawn is :

- a) Mycelium of fungus
b) Fruiting body of fungus
c) Making soil layer on mycelium
d) Type of a compost.

136. For remedy on insect bites and leech bites a paste of fresh roots of _____ is used.

- a) *Aloe vera*
b) *Asparagus racemosus*
c) *Ocimum sanctum*
d) *Adhatoda vasica*.

137. A symbiotic association which is not useful as biofertilizer is _____

- a) Azolla and Anabaena
b) Rhizobium and legume root
c) Fungi and roots of higher plants
d) Algae and fungi.

138. *Agaricus bisporus* was first cultivated in

- a) M.P.
b) U.P.
c) Himachal pradesh
d) Punjab

139. Gel obtained from _____ plant is used as moisturizing agent in creams and lotions

- a) *Aloe* b) *Asparagus*
c) Both a and b d) Lichen.

140. Anthelmintic medicines are those :

- a) Which kills the worms
b) Which are mild laxatives
c) Which are pain killers
d) Which relieves the fever.

141. Mushrooms belong to class

- a) Phyllophyceae
b) Basidiomycetes.
c) Chlorophyceae
d) None of these.

142. Maha-narayan tel is obtained from roots of

- a) *Azadirachta indica*
b) *Ocimum sanctum*
c) *Asparagus*
d) *Aloe vera*.

143. The optimum temperature required for *Agaricus bisporus* is

- a) 10^o-15^oC b) 25^o- 30^oC
c) 35^o- 40^oC d) 40^o- 50^oC

144. 'Ghrit Kumari' or 'Ghikumari' is common name of _____

- a) *Aloe vera* b) *Asparagus*
c) *Adathoda* d) Banana

Ans -

- (132 - a) (133 - b) (134 - b)
(135 - a) (136 - c) (137 - d)
(138 - c) (139 - a) (140 - a)
(141 - b) (142 - c) (143 - b)
(144 - a)

- 160. Leaves of Ocimum.....the blood cholesterol level.**
 a) Balance b) Increase
 c) Decrease d) No effect..
- 161. The _____ of Aloe is used in gynecological problems**
 a) Leaf juice b) Leaf pulp
 c) Leaf decoction d) Leaf popoutice.
- 162. Azolla leaf contains Anabaena on**
 a) Ventral surface b) Dorsal surface
 c) Both (a) and (b) d) None of these.
- 163. Asparagus racemosus is**
 a) An annual herb
 b) Perennial herb
 c) branched climber
 d) Evergreen tree.
- 164. Azolla is beneficial to paddy fields. It provides-**
 a) Oxygen
 b) Carbon di-oxide
 c) Methane
 d) Nitrogen.
- 165. Mushroom have _____ mode of nutrition**
 a) Autotrophic b) Saprophytic
 c) Parasitic d) Epiphytic.
- 166. The botanical name of vasica is**
 a) *Azadirachta indica*
 b) *Azadirachta zeylanica*
 c) *Adhatoda zeylanica*
 d) *Adhatoda indica*.
- 167. For oyster mushroom cultivation beds are prepared in _____**
 a) Plastic bags b) Trays
 c) Pots d) Bucket.
- 168. Blue-green algae is also called as**
 a) Mycoplasma b) Cyanobacteria
 c) Green algae d) None of these.
- 169. The mushroom spawn preparation needs addition of calcium carbonate because it _____**
 a) Maintains the pH
 b) Absorbs excess water
 c) Helps in keeping grains separate
 d) All of these.
- 170. Blue-grenn algae are**
 a) Cladotrix, Ulothrix, Gloeotricha
 b) Cladotrix, Aulosira, Anabena
 c) Anabena, Nostoc, Chlamydomonas
 d) Nostoc, spirogyra, gloeotricha.
- 171. The method of mushroom harvesting is**
 a) Machine lifting
 b) Cutting with scissors
 c) Hand picking
 d) Lifting with trowels.
- 172. Blue-green algae contain**
 a) Pseudo cells
 b) Parenchymatous cells
 c) Totipotent cells
 d) Heterocysts.
- 173. The branch of science that deals with the study of drug plants is called**
 a) Pharmacology
 b) Pharmacognosy
 c) Anatomy
 d) Phytology.
- 174. Secondary mycelium of mushroom produces umbrella like structure called as-**
 a) Primary mycelium
 b) Tertiary mycelium
 c) Pileus
 d) Gills.

Ans -

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|-----------|-----------|-----------|
| (160 - c) | (161 - b) | (162 - b) |
| (163 - c) | (164 - d) | (165 - b) |
| (166 - c) | (167 - a) | (168 - b) |
| (169 - d) | (170 - b) | (171 - c) |
| (172 - d) | (173 - b) | (174 - c) |

190. *Adhatoda zeylanica* contains

- a) Vasakin b) Nimbin
c) Eugenol d) Aloin.

191. Which of the following plants is of a great medicinal use ?

- a) *Brassica oleracea*
b) *Areca catechu*
c) *Aloe vera*
d) *Musa paradisiaca*.

192. Which blue-green algae lacks heterocyst ?

- a) *Anabena*
b) *Nostoc*
c) *Oscillatoria*
d) *Chlamydomonas*.

193. Active principle of *ocimum sanctum*

- a) Azadirachtin b) Eugenel
c) Barbalain d) Vasicolin.

194. Oxygen carrying substance present in the root nodules is

- a) Heterocyst
b) Leghaemoglobin
c) Plasma
d) Haemoglobin.

195. Biofertilizers are _____ in nature.

- a) Fungal b) Algal
c) Bacterial d) All of these.

196. Heterocyst contains

- a) Leghaemoglobin
b) Nitrogenase
c) Phycocyanin
d) xanthophyll.

197. BGA occur as symbiont with _____

- a) Liverworts b) Pteridophyta
c) Gymnosperm d) All the Three.

198. Mushroom are used in the preparation of

- a) Soups b) Pizza
c) Pickle d) All of these.

199. Which of the following algae is nitrogen fixer ?

- a) *Nostoc* b) *Chlorella*
c) *Azolla* d) *Spirogyra*

200. The steroid is extracted from medicinal plant *Asparagus racemosus*.

- a) Azadirachtin b) Saponin
c) Vasicine d) Barbaloin

201. Roots show the uterine blocking activity and hence roots of are used for the cure of threatened abortion and safe delivery.

- a) *Aloe vera*
b) *Adhatoda vasica*
c) *Asparagus racemosus*
d) *Ocimum sanctum*

202. In india, only three genera of mushrooms are preferred as edible varieties viz.

- a) *Agaricus*, *as Lentinus*, *Plammutina*
b) *Agaricus*, *Pleurotus*, *Volvariella*.
c) *Pleurotus*, *Lycoperdon*, *Geastrum*
d) *Agaricus*, *Lentinus*, *Pleurotus*.

Ans -

- (190 - a) (191 - c) (192 - c)
(193 - b) (194 - b) (195 - d)
(196 - b) (197 - d) (198 - d)
(199 - a) (200 - b) (201 - c)
(202 - b)