

BOTANY

101. *Salvinia* (Pteridophyte) is an aquatic weed and called
- (1) Walking fern (2) Sorrow of Kashmir
(3) Silver fern (4) Bengal's terror.
102. Number of peristome teeth in *Funaria* capsule is
- (1) 16 in one whorl (2) 16 in two whorls
(3) 32 in one whorls (4) 32 in two whorls
103. The protective covering of sori in ferns is called as
- (1) Perichaetium (2) Integument
(3) Indusium (4) Tegmen
104. Christmas tree is
- (1) *Pinus sylvestris*
(2) *Araucaria. excelsa*
(3) *Thuja*
(4) *Williamsonia sewardiana*
105. Canada balsam is a type of turpentine obtained from
- (1) *Juniperous* (2) *Abies*
(3) *Cedrus* (4) *Pinus.*
106. Transfusion tissue for lateral conduction of water and food are found in
- (1) Roots of gymnosperms
(2) Stem of gymnosperms
(3) Leaves of gymnosperms
(4) Leaves of angiosperms
107. Sulphur shower is
- (1) Continuous shedding of foliage
(2) Pollen cloud of pine
(3) Rain bringing algal spores
(4) Shedding of seeds from high trees in forest
108. Number of neck canal cells present in the Archegonium of *Pinus* is
- (1) 4 (2) 3
(3) 2 (4) 0
109. In *Pinus*, Microspores is shed at
- (1) 3 - celled stage (2) 2 - celled stage
(3) 4 - celled stage (4) 6 - celled stage
110. In branched conidiophore of *Penicillium*, the ultimate branch which bears sterigmata is called
- (1) Phialides (2) Metulae
(3) Ramus (4) Ramenta
111. Gymnosperms are believed to be originated during
- (1) Paleozoic era (2) Mesozoic era
(3) Coenozoic era (4) Both 1 and 2
112. Female cone of *Pinus* is borne on
- (1) Dwarf shoot (2) Needle leaves
(3) Long shoot
(4) Undeveloped male cone
113. Prothallus of fern produces
- (1) Spores (2) Gametes
(3) Both 1 and 2 (4) None
114. Trabeculae are present in the stem of
- (1) *Rhynia* (2) *Lycopodium*
(3) *Selaginella* (4) *Pteris*
115. Antherozoids of ferns are
- (1) Spherical and multiflagellate
(2) Spirally coiled and multiflagellate
(3) Rounded and biflagellate
(4) Club-shaped and uniflagellate
116. Wings in *Pinus* seeds develop from
- (1) Bract scales (2) Ovuliferous scales
(3) Cone axis (4) Seed coat
117. In which of the following groups would you place a plant which produces spores, has vascular tissues and bears seeds without fruits ?
- (1) Angiosperms (2) Gymnosperms
(3) Pteridophytes (4) Bryophytes
118. The perisperm in a seed of *Cycas* is
- (1) Remains of nucellus
(2) Female gametophyte
(3) Endosperm
(4) Seed coat
119. 13 celled male gametophyte of *Selaginella* consists of
- (1) 1 Prothallial cell, 8 Jacket cells & 4 Primary androgonial cells
(2) 1 Prothallial cell, 5 Jacket cells & 7 Primary androgonial cells
(3) 1 Prothallial cells, 4 Jacket cells & 8 Primary androgonial cells
(4) 1 Prothallial cells, 8 Jacket cells & 4 Primary androgonial cells
120. A collection of short stalked sporangia attached to placenta and covered by indusium is called :
- (1) Ramenta (2) Sorus
(3) Sporophyll (4) Cone

121. In *Pteris* the sporophytic generation begins from and ends with the formation of spore mother cells :
- (1) Spore
 - (2) Zygote
 - (3) Zoospore
 - (4) Antherozoid
122. In *Pteris* the archegonia are present :
- (1) Near rhizoids on lower surface
 - (2) Near anterior notch
 - (3) Distributed on whole surface
 - (4) On posterior end of prothallus
123. In pteridophytes, meiosis occurs at the time of
- (1) Spore formation
 - (2) Gamete formation
 - (3) Prothallus formation
 - (4) Any of the above is possible
124. Pollination in *Cycas* takes place by :
- (1) Wind
 - (2) Insects
 - (3) Water
 - (4) Man
125. Coralloid roots of *Cycas* is distinguished from angiosperm roots by :
- (1) Presence of algal zones
 - (2) Absence of algal zones
 - (3) Absence of pith
 - (4) Having xylem tissue
126. The spermatozoids of *Cycas* are:
- (1) Small, uniciliate and of ovoid shape
 - (2) Small, lens-shaped and multiciliate
 - (3) Large, top-shaped and multiciliate
 - (4) None of these
127. Inverted Omega shaped ring of vascular bundles is found in :
- (1) Rachis of *Cycas*
 - (2) Leaflet of *Cycas*
 - (3) Roots of *Cycas*
 - (4) Old stem of *Cycas*
128. The number of cotyledons in the embryo of *Pinus* are :
- (1) Two
 - (2) One
 - (3) 3-18
 - (4) All of the above given are possible
129. Leaves of *Funaria* are:
- (1) Small, sessile, ovate with acute apex without midrib
 - (2) Large, sessile, ovate with acute apex with midrib
 - (3) Small, sessile, ovate with acute apex with midrib
 - (4) None of these
130. Which of the following structure of '*Funaria*' is haploid?
- (1) Operculum
 - (2) Calyptra
 - (3) Sporocytes
 - (4) Peristomial teeth
131. Bryophyte used as 'antiseptic absorbant bandage' is
- (1) *Sphagnum*
 - (2) *Riccia fluitans*
 - (3) *Marchantia*
 - (4) *Porella*
132. In which of the following plant sex organs are embedded in the thallus?
- (1) *Azolla*
 - (2) Moss
 - (3) *Riccia*
 - (4) Fern
133. Carpogonium is female sex organ of
- (1) Red algae
 - (2) Brown algae
 - (3) Green algae
 - (4) Land plants
134. In Pteridophytes, reduction division occurs when
- (1) Prothallus is formed
 - (2) Sex organs are formed
 - (3) Spores are formed
 - (4) Gametes are formed
135. A saprophytic bryophyte found in the Himalayas is
- (1) *Sphagnum*
 - (2) *Porella*
 - (3) *Ricciocarpus*
 - (4) *Bauxbaumia*
136. Which of the following is a true moss?
- (1) Club moss
 - (2) Reindeer moss
 - (3) Irish moss
 - (4) Bog moss
137. *Ulothrix*, *Riccia* and ferns are similar in having
- (1) Dominant gametophyte
 - (2) Unicellular gametangia
 - (3) Absence of vascular tissues
 - (4) Presence of flagellated gametes
138. Which of the following statements about *Cycas* is incorrect?
- (1) Its xylem is mainly composed of tracheids
 - (2) Its roots contain some green algae
 - (3) It lacks a properly organized female cone
 - (4) It has circinate vernation
139. Pyrrophytes are also known as
- (1) Brown algae
 - (2) Fire algae
 - (3) Red algae
 - (4) Fungi
140. On germination, moss spores produce
- (1) Annulus
 - (2) Theca
 - (3) Peristome
 - (4) Protonema

141. Chl.a, Chl.d and phycoerythrin pigments are found in
(1) Cyanophyceae (2) Bacillariophyceae
(3) Rhodophyceae (4) Chlorophyceae
142. Set of bacterial diseases is
(1) Diphtheria, leprosy and plague
(2) Malaria, mumps and polio
(3) Cholera, typhoid and mumps
(4) Tetanus, TB and malaria
143. This place in India is called 'The Golden Mine of Liverworts'
(1) Eastern Himalayas (2) Western Himalayas
(3) Western Ghats (4) Easter Ghats
144. Two microbes found to be very useful in genetic engineering are
(1) Crown gall bacterium and *Caenorhabditis*
(2) *Escherichia coli* and *Agrobacterium tumefaciens*
(3) *Vibrio cholerae* and a tailed bacteriophage
(4) *Diplococcus* sp. and *Pseudomonas* sp.
145. The causative agent of mad-cow disease is a
(1) Virus (2) Mycoplasma (3) Prion (4) Viroids
146. The bacterium (*Clostridium botulinum*) that causes botulism is
(1) an obligate aerobe (2) a facultative anaerobe
(3) an obligate anaerobe (4) a facultative aerobes
147. Auxospores are produced in
(1) Diatoms (2) Green algae
(3) Brown algae (4) Red algae
148. Olive green *Batrachospermum* having prominent plasmodesmata is
(1) Red algae (2) Blue algae
(3) Brown algae (4) Blue green algae
149. Diatoms do not easily decay as other algae because
(1) It is made up of nonlining cells
(2) It has mucilagenous wall
(3) It has water proof wall
(4) They have highly siliceous wall
150. The macrozoospore of Ulothrix are
(1) Quadriflagellate (2) Biflagellate
(3) Both (1) and (2) (4) None of these