

Botany (1068)

- Which of the following is not an extinct member of pteridophytes?
A) *Lepidodendron* B) *Sphenophyllum*
C) *Phylloglossum* D) *Calamites*
- Which of the following terms is used for the harvestable growth of ecosystem?
A) Biomass B) Primary productivity
C) Ecological yield D) Standing crop
- Which of the following is commonly known as "Skeleton fern"?
A) *Tmesipteris elongate* B) *Pteris pedatum*
C) *Psilotum nudum* D) *Hymenophyllum denticulatum*
- Spores of the fern plants germinate to form.....
A) Embryo B) Prothallus C) Protonema D) Zygospore
- Category III of IUCN Protected Area pertains to the.....
A) Natural Monument B) National Park
C) Wilderness Area D) Strict Nature Reserve
- Which of the following best describes the concept of a metapopulation?
A) A population in an urban area
B) A population of different species living in the same geographic area at the same time
C) A population that has become spatially subdivided
D) A network of distinct and non-interacting species
- Which of the following terms is used for the populations showing reversible phenotypic variations induced upon environmental gradient?
A) Ecotype B) Ecophene C) Ecotope D) Ecotone
- Leaves are involved in the vegetative reproduction in which of the following plants?
A) *Solanum nigrum* B) *Brassica campestris*
C) *Bryophyllum daigremontianum* D) *Opuntia articulata*
- The only natural habitat of the endangered Manipur Brow-Antlered deer is.....

- A) Keibul Lamjao National Park B) Keoladeo National Park
C) Great Himalayan National Park D) Kudremukh National Park

10. Golden rice is a genetically modified variety of rice that contains a gene from

- A) Sunflower B) Lotus C) Daffodil D) Marigold

11. Recombinant DNA was first developed in the year.....

- A) 1974 B) 1973 C) 1972 D) 1971

12. Caryopsis is the fruit in family.....

- A) Asteraceae B) Chenopodiaceae C) Poaceae D) Apiaceae

13. Which of the following is an example of drupe?

- A) Avocado B) Buttercup C) Olive D) Pear

14. Which of the following was the theme of the International Day of Forests 2018?

- A) Forests and Sustainable Cities B) Forests and Energy
C) Forests and Water D) Forests | Climate | Change

15. Chemically, ephedrine is a/an.....

- A) Saponin B) Polyphenol C) Alkaloid D) Diterpene

16. Rattans are the type of

- A) Climbing Pines B) Climbing Palms
C) Climbing Ferns D) Woody Ferns

17. Which of the following is true about bird-pollinated plants?

- A) Plants tend to have red flowers and are rarely scented
B) Plants tend to have red flowers and are always scented
C) Plants tend to have blue flowers and are always scented
D) Plants tend to have blue flowers and are rarely scented

18. The change in allele frequency from one generation to the next is known as.....

19. The term *gene* was coined by
A) C.H. Morgan
B) Hugo de Vries
C) William Bateson
D) Wilhelm Johannsen
20. Which of the following terms is used for the hard and porous cell wall of diatoms?
A) Frustule
B) Lorica
C) Extra cellular matrix
D) Coccolith
21. India's seed vault for protecting the seeds especially of crops is located at.....
A) Kaza (Lahaul and Spiti)
B) Kalpa (Kinnaur)
C) Chang La (Ladakh)
D) Kargil (Ladakh)
22. Bull Kelp is the common name of
A) *Laminaria hyperborean*
B) *Durvillaea antarctica*
C) *Ascophyllum nodosum*
D) *Macrocystis pyrifera*
23. Which of the following is not a C4 plant?
A) Maize
B) Barley
C) Sugarcane
D) Sorghum
24. Drooping junipers are the characteristic trees of
A) Littoral and Swamp forests
B) Moist tropical forests
C) Alpine forests
D) Sub-tropical forests
25. Which of the following members of oomycetes is used as a biocontrol agent?
A) *Pythium oligandrum*
B) *Saprolegnia mixta*
C) *Aphanomyces euteiches*
D) *Plasmopara viticola*
26. Which of the following green algae is responsible for causing the phenomenon of watermelon snow?
A) *Chlorella vulgaris*
B) *Chlamydomonas nivalis*
C) *Volvox aureus*
D) *Chara elegans*

27. *Die natürlichen Pflanzenfamilien* is related to.....
 A) Bentham and Hooker B) Engler and Prantl
 C) Takhtajan D) Hutchinson
28. Which of the following is an example of leafy liverwort?
 A) *Porella* B) *Riccia* C) *Nothoceros* D) *Marchantia*
29. Which of the following contains inverted cortical vascular bundles?
 A) Sunflower B) *Nyctanthes* C) *Boerhavia* D) *Bougainvillea*
30. Replum is found in the ovary of.....
 A) Mustard B) Sunflower C) Petunia D) Pea
31. Which of the following species of *Amanita* is commonly known as "Death Cap"?
 A) *Amanita bisporigera* B) *Amanita ocreata*
 C) *Amanita phalloides* D) *Amanita verna*
32. Which of the following diseases of potato is associated with the famines that occurred in Europe in 1840s?
 A) Potato Scab B) Late Blight of Potato
 C) Early Blight of Potato D) Brown Rot of Potato
33. Which of the following viroids was the first to be identified?
 A) Avocado Sun Blotch Viroid B) Eggplant Latent Viroid
 C) Potato Spindle Tuber Viroid D) Peach Latent Mosaic Viroid
34. Who among the following is known as the father of taxonomy?
 A) de Candolle B) Linnaeus C) Mayr D) Theophrastus
35. Which of the following is the botanical name of Ajwain?
 A) *Cuminum cyminum* B) *Ferula communis*
 C) *Foeniculum vulgare* D) *Trachyspermum ammi*
36. Amber is a type of
 A) Fossilized tree resin B) Inflorescence
 C) Fruit D) Woody climber

37. Which of the following parts of clove is used as flavouring material?
 A) Dried leaves B) Dried seeds C) Floral buds D) Young fruits
38. A mutation that changes a codon specifying a different amino acid to one of the stop codons is known as.....
 A) Leaky mutation B) Nonsense mutation
 C) Missense mutation D) Null mutation
39. Fuelgen reaction is a specific test to check the presence of.....
 A) RNA B) Proteins C) Fats D) DNA
40. Which of the following refers to the recognition site in promoter region of a *lac* operon?
 A) Pribnow box B) TATA box C) CRP box D) Cga box
41. Which of the following amino acids is aromatic in nature?
 A) Tryptophan B) Glycine C) Glutamic acid D) Alanine
42. Cyclic photophosphorylation involves
 A) Both PS I and PS II B) Either PS I or PS II
 C) PS II only D) PS I only
43. Which of the following is true about Nastic movements?
 A) Non-directional only
 B) Reversible only
 C) Both reversible and non-directional
 D) Neither reversible nor non-directional
44. Which of the following is the symbol for net reproductive rate?
 A) R_0 B) I_x C) λ D) m_x
45. Type I error in statistical hypothesis testing is also known as.....
 A) Standard error B) False neutral
 C) False negative D) False positive
46. Which of the following is the full form of DOI – a serial code for electronic documents?
 A) Digital Object Index B) Digital Object Identifier
 C) Data Operating Indicator D) Data object Identifier

47. Sulphur shower relates to.....

- A) *Pinus* B) *Picea* C) *Abies* D) *Ginkgo*

48. Fern *Acrostichum aureum* is well adapted to

- A) Salt marshes B) Heathlands
C) Open exposed areas D) Xerophytic conditions

49. Long fibre of cotton seed is known as.....

- A) Coir B) Fuzz C) Flax D) Lint

50. Medicinally important Ginseng, a slow growing perennial plant belongs to which of the following genera?

- A) *Panicum* B) *Pandanus* C) *Panax* D) *Papaver*

x-x-x

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M.Phil./PHD - 2018

ANSWERS / KEY

Subject: Botany(Ph.D. & M.Phil.)

1	2	3	4	5	6	7	8	9	10
C	C	C	B	A	C	B	C	A	C
11	12	13	14	15	16	17	18	19	20
B	C	C	A	C	B	A	B	D	A
21	22	23	24	25	26	27	28	29	30
C	X	B	C	A	B	B	A	B	A
31	32	33	34	35	36	37	38	39	40
C	B	C	B	D	A	C	B	D	A
41	42	43	44	45	46	47	48	49	50
A	D	C	A	D	B	A	A	D	C

Note: An 'X' (if any) in the key indicates that either the question is ambiguous or it has printing mistake. All candidates will be given credit for this question