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## NEET BIOLOGY 2018-19 - Chennai

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Name: \_\_\_\_\_

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**Negative Marks : 4 marks for correct attempt & 1 mark deducted for every wrong attempt.**

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- An example of colonial alga is
  - Volvox
  - Ulothrix
  - Spirogyra
  - Chlorella
- Select the mismatch.
  - Cycas - Dioecious
  - Salvinia - Heterosporous
  - Equisetum - Homosporous
  - Pinus - Dioecious
- Zygotic meiosis is characteristic of
  - Fucus
  - Funaria
  - Chlamydomonas
  - Marchantia
- Life cycles of Ectocarpus and Fucus respectively are
  - diplontic, haplodiplontic
  - haplodiplontic, diplontic
  - haplodiplontic, haplontic
  - haplontic, diplontic
- Conifers are adapted to tolerate extreme environmental conditions because of
  - broad hardy leaves
  - superficial stomata
  - thick cuticle
  - presence of vessels
- Which one of the following statements is wrong?
  - Algae increase the level of dissolved oxygen in the immediate environment.
  - Algin is obtained from red algae, and carrageenan from brown algae.
  - Agar-agar is obtained from Gelidium and Gracilaria.
  - Laminaria and Sargassum are used as food.
- Select the correct statement.
  - Sequoia is one of the tallest trees.
  - The leaves of gymnosperms are not well adapted to extremes of climate.
  - Gymnosperms are both homosporous and heterosporous.
  - Salvinia, Ginkgo and Pinus all are gymnosperms.

8. In bryophytes and pteridophytes, transport of male gametes requires
- birds
  - water
  - wind
  - insects
9. Which one of the following statements is wrong?
- Chlorella and Spirulina are used as space food.
  - Mannitol is stored food in Rhodophyceae,
  - Algin and carrageenan are products of algae.
  - Agar-agar is obtained from Gelidium and Gracilaria.
10. In which of the following, gametophyte is not independent free living?
- Pteris
  - Pinus
  - Funaria
  - Marchantia
11. Read the following five statements (A to E) and select the option with all correct statements.
- Mosses and lichens are the first organisms to colonise a bare rock.
  - Selaginella is a homosporous pteridophyte,
  - Coralloid roots in Cycas have VAM
  - Main plant body in bryophytes is gametophytic, whereas in pteridophytes it is sporophytic,
  - In gymnosperms, male and female gametophytes are present within sporangia located on sporophyte.
- (a) A, D and E      (b) B, C and E  
(c) A, C and D      (d) B, C and D
12. Male gametes are flagellated in
- Ectocarpus
  - Spirogyra
  - Polysiphonia
  - Anabaena
13. Which one of the following is wrong about Chara?
- Upper oogonium and lower round antheridium
  - Globule and nucule present on the same plant
  - Upper antheridium and lower oogonium
  - Globule is male reproductive structure
14. Which of the following is responsible for peat formation:
- Marchantia
  - Riccia
  - Funaria
  - Sphagnum
15. Male gametophyte with least number of cells is present in
- Pteris
  - Funaria
  - Lilium
  - Pinus.

16. Select the wrong statement.

- (a) In Oomycetes, female gamete is smaller and motile, while male gamete is larger and non-motile.
- (b) Chlamydomonas exhibits both isogamy and anisogamy and fucus shows oogamy
- (c) Isogametes are similar in structure, function and behavior.
- (d) Anisogametes differ either in structure, function or behavior

17. Isogamous condition with non-flagellated gametes is found in

- (a) Volvox
- (b) Fucus
- (c) Chlamydomonas
- (d) Spirogyra.

18. Monoecious plant of chara shows occurrence of

- (a) upper antheridium and lower oogonium on the same plant
- (b) upper oogonium and lower antheridium on the same plant
- (c) antheridiophore and archegoniophore on the same plant
- (d) stamen and carpel on the same plant,

19. Read the following statements (A - E) and answer the question which follows them.

- A. In liverworts, mosses and ferns gametophytes are free-living.
- B. Gymnosperms and some ferns are heterosporous.
- C. Sexual reproduction in fucus, volvox and albugo is oogamous,
- D. The sporophyte in liverworts is more elaborate than that in mosses.
- E. Both, Pinus and marchantia are dioecious.

How many of the above statements are correct?

- (a) Three
- (b) Four
- (c) One
- (d) Two

20. Syngamy can occur outside the body of the organism in

- (a) mosses
- (b) (h) algae
- (c) ferns
- (d) fungi.

21. What is common in all the-three, funaria, dryopteris and Ginkgo?

- (a) Presence of archegonia
- (b) Well developed vascular tissues
- (c) Independent gametophyte
- (d) Independent sporophyte

22. Which one of the following is wrongly matched?
- Spirogyra - Motile gametes
  - Sargassum - Chlorophyll
  - Basidiomycetes - Puffballs
  - Nostoc - Water blooms
23. The plant body is thalloid in
- Sphagnum
  - Salvinia
  - Marchantia
  - Funaria.
24. Which one of the following is common to multicellular fungi, filamentous algae and protonema of mosses?
- Diplontic life cycle
  - Members of Kingdom Plantae
  - Mode of nutrition
  - Multiplication by fragmentation
25. Which one of the following is a correct statement?
- Pteridophyte gametophyte has a protonemal leafy stage.
  - In gymnosperms, female gametophyte is free-living,
  - Antheridiophores and archegoniophores are present in pteridophytes,
  - Origin of seed habit can be traced in pteridophytes.
26. In Pinus, the wings of the seed develops from
- Ovuliferous scale
  - (h) Integument
  - Nucellus
  - Bract.
27. In bryophytes
- both generations are independent
  - gametophytes are dependent upon sporophytes
  - sporophytes complete their life cycle
  - sporophytes are dependent upon gametophytes.
28. Which one is the most advanced from evolutionary view point?
- Selaginella
  - Funaria
  - Chlamydomonas
  - Pinus
29. Pinus differs from mango in having
- tree habit
  - green leaves
  - ovules not enclosed in ovary
  - wood.
30. Pyrenoids are the centres for formation of
- Porphyra
  - enzymes
  - fat
  - starch.

31. Pteridophytes differ from bryophyte and thallophytes in having
- (a) vascular tissues
  - (b) motile antherozoids
  - (c) archegonia
  - (d) alternation of generations
32. Chloroplast of Chlamydomonas is
- (a) stellate
  - (b) cup-shaped
  - (c) collar-shaped
  - (d) spiral.
33. In Ulothrix/Spirogyra 'reduction division (meiosis) occurs at the time of
- (a) gamete formation
  - (b) zoospore formation
  - (c) zoospore germination
  - (d) vegetative reproduction.
34. Pteridophytes differ from mosses/bryophytes in possessing
- (a) independent gametophyte
  - (b) well developed vascular system
  - (c) archegonia
  - (d) flagellate spermatozoids
35. Protonema occurs in the life cycle of
- (a) Riccia
  - (b) Funaria
  - (c) Anthoceros
  - (d) Spirogya
36. Resin and turpentine are obtained from
- (a) Cycas
  - (b) Pinus
  - (c) Cedrus
  - (d) abies.
37. Turpentine is got from
- (a) angiospermous wood
  - (b) bryophytes
  - (c) gymnospermous wood
  - (d) ferns.
38. In Pinus, the pollen grain has 6 chromosomes then in its endosperm will have
- (a) 12
  - (b) 18
  - (c) 6
  - (d) 24
39. A plant having seeds but lacking flowers and fruits belongs to
- (a) pteridophytes
  - (b) mosses
  - (c) ferns
  - (d) gymnosperms
40. Which one of the following is not common between Funaria and Selaginella?
- (a) Archegonium
  - (b) Embryo
  - (c) Flagellate sperms
  - (d) Roots

41. The plant group that produces spores and embryo but lacks vascular tissues and seeds is
- (a) Pteridophyta
  - (b) Rhodophyta
  - (c) Bryophyta
  - (d) Phaeophyta.
42. A plant in which sporophytic generation is represented by zygote is
- (a) Pinus
  - (b) Selaginella
  - (c) Chlamydomonas
  - (d) Dryopteris.
43. Bryophytes are amphibians because
- (a) they require a layer of water for carrying out sexual reproduction
  - (b) they occur in damp places
  - (c) they are mostly aquatic
  - (d) all the above.
44. Which one has the largest gametophyte?
- (a) Cycas
  - (b) Angiosperm
  - (c) Selaginella
  - (d) Moss
45. The common mode of sexual reproduction in Chlamydomonas is
- (a) isogamous
  - (b) anisogamous
  - (c) oogamous
  - (d) hologamous.
46. The product of conjugation in Spirogyra or fertilization of Chlamydomonas is
- (a) zygospore
  - (b) zoospore
  - (c) oospore
  - (d) carospores
47. Moss peristome takes part in
- (a) spore dispersal
  - (b) photosynthesis
  - (c) protection
  - (d) absorption.
48. Apophysis in the capsule of Funaria is
- (a) lower part
  - (b) upper part
  - (c) middle part
  - (d) fertile part.
49. In Pinus/gymnosperms, the haploid structure are
- (a) megaspore, endosperm and embryo
  - (b) megaspore, pollen grain and endosperm
  - (c) megaspore, integument and root
  - (d) Pollen grain, leaf and root.
50. Sperms of both Funaria and Pteris were released together near the archegonia of Pteris, only its sperms enter the archegonia as
- (a) Pteris archegonia repel Funaria sperms
  - (b) Funaria sperms get killed by Pteris sperms
  - (c) Funaria sperms are less mobile
  - (d) Pteris archegonia release chemical to attract its sperms.