

NEET BIOLOGY 2018-19 - Chennai

Periodic Test : 18

Test ID : 030

Number of questions: 50

Test date: 07.04.2019

Name: _____

Time: 3HRS

ID No: _____

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

1. Match the type of protozoans given in column – I with their examples given in column – II and choose the correct option.

Column I

(Type of protozoans)

- A. Amoeboid protozoans
B. Ciliated protozoans
C. Flagellated protozoans
D. Sporozoans

Column II

(Examples)

- I. Paramecium
II. Plasmodium
III. Amoeba
IV. Trypanosoma

- (a) A – I; B – III; C – IV; D – II
(b) A – III; B – I; C – II; D – IV
(c) A – III; B – I; C – IV; D – II
(d) A – III; B – IV; C – I; D – II

2. A few organisms are known to grow and multiply at temperatures of 100 – 105°C.

These organisms belong to

- a) marine archaeobacteria.
b) thermophilic sulphur bacteria.
c) blue – green algae (cyanobacteria).
d) thermophilic, subaerial fungi.

3. The coenocytic condition in fungus can be best described by

- a) uninucleate hypha without septum.
b) multinucleate hypha without septum.
c) the presence of septae or cross walls in their hypha.
d) none of the above

4. In phycocytetes, asexual reproduction takes place by zoospores or by aplanospores. Regarding these spores, read the following statements and choose the correct option.

- i) Zoospores are motile and aplanospores are non – motile in nature.
ii) These spores are endogenously produced in sporangia.

Which of the statements are true and false?

- (a) (i) is true, but (ii) is false
(b) (i) is false, but (ii) is true
(c) Both are true
(d) Both are false

5. Refer the following statements and answer the question.

- (i) It is a ciliated protozoan.
(ii) It has a cavity that opens to the outside the cell surface.
(iii) It shows water current maintained by cilia which helps the food to be steered into gullet.

Which of the statement given above are correct regarding Paramecium?

- (a) (i) and (ii)
(b) (i) and (iii)
(c) (ii) and (iii)
(d) (i), (ii) and (iii)

6. In basidiomycetes, the vegetative reproduction takes place by:

- (a) Endospore
- (b) Slime moulds
- (c) Akinetes
- (d) Euglenoid

7. Match the terms given in column I with their description given in column II.

Choose the correct match from the options given below.

Column I	Column II
A. Halophiles	I. Bacteria which survive in alkaline medium
B. Thermoacidophiles	II. Bacteria which survive in marshy area
C. Methanogens	III. Bacteria residing in hot springs
D. Basophiles	IV. Bacteria residing in salty areas

- (a) A – I; B – IV; C – III; D – II
- (b) A – III; B – II; C – I; D – IV
- (c) A – II; B – I; C – IV; D – III
- (d) A – IV; B – III; C – II; D – I

8. Two bacteria found to be very useful in genetic engineering experiments are – and –

- (a) Esherichia, agrobacterium
- (b) Nitrobacter, Azotobacter
- (c) Rhizobium, Diplococcus
- (d) Nitrosomonas, Klebsiella

9. In some viruses, RNA is present instead of DNA indicating that

- (a) their nucleic acid must combine with host DNA before replication.
- (b) they cannot replicate.
- (c) there is no hereditary information.
- (d) RNA can transfer heredity material.

10. With respect to fungal sexual cycle, choose the correct sequence of events.

- (a) karyogamy, plasmogamy and Meiosis
- (b) Meiosis, plasmogamy and karyogamy
- (c) plasmogamy, karyogamy and Meiosis
- (d) Meiosis, karyogamy and plasmogamy

11. Lichens indicate SO₂ pollution because they

- (a) show association between algae and fungi
- (b) grow faster than others
- (c) are sensitive to SO₂
- (d) flourish in SO₂ rich environment.

12. An antiviral substance produced by many vertebrates in response to viral infection for resisting the multiplication of viruses is known as-----

- (a) antivirin
- (b) antigen
- (c) virion
- (d) interferon

13. The non – living characteristic of viruses is

- (a) ability to undergo mutation.
- (b) ability to cause diseases in the host.
- (c) ability to multiply only inside the host.
- (d) ability to be crystallised.

14. Which one of the following statements concerning the fungi is incorrect?

- (i) Most of the fungi are photosynthetic.
 - (ii) They can be classified according to their pigments.
 - (iii) All are filamentous.
 - (iv) sexual reproduction is by oospores, ascospores and basidiospores.
- a) (i), (ii) and (iii)
 - b) (iii) and (iv)
 - c) All of these
 - d) None of these

15. Which of the following pairs is correctly matched?

- (a) Rhizobium - Parasite in the roots of leguminous plants
- (b) Mycorrhizae - Mineral uptake from Soil
- (c) Yeast - Production of biogas
- (d) Myxomycetes - Ring worm disease

16. The genetic material of virus includes

- (a) only RNA
- (b) only DNA
- (c) RNA and DNA both
- (d) RNA or DNA, ie., one nucleic acid in a virus.

17. Match the kingdom given column I with their class given in column II and select the correct options.

Column I (kingdom)	Column II (class)
A. Plantae	I. Archaeobacteria
B. Fungi	II. Euglenios
C. Protista	III. Phycomycetes
D. Monera	IV. Algae

- (a) A - IV, B - III, C - II, D - I
- (b) A - I, B - II, C - III, D - IV
- (c) A - III, B - IV, C - II, D - I
- (d) A - IV, B - II, C - III, D - I

18. Yeast *Saccharomyces cerevisiae* is used in the industrial production of -----

- (a) citric acid
- (b) tetracyclin
- (c) ethanol
- (d) butanol

19. Viruses are non - cellular organisms but replicate themselves once they infect the host cell. To which of the following kingdom viruses belong to?

- (a) Monera
- (b) Protista
- (c) Fungi
- (d) None of these

20. Which of the following is the correct sequence of the sexual cycle of fungi?

- (a) Mitosis \rightarrow Meiosis - Fertilisation
- (b) Plasmogamy - karyogamy - Meiosis
- (c) Meiosis - Plasmogamy - karyogamy
- (d) karyogamy - Plasmogamy - Meiosis

21. Analyse the following statements and answer the question.

- (i) Diatomite is porous and chemically inert, It is therefore used in filtration of sugars, alcohols, oils, syrups and antibiotics.
- (ii) Diatomite deposits are often accompanied by petroleum fields.
- (iii) Desmids are mainly found in dirty water and are, usually indication of polluted water.

Which of the statements given above are correct?

- (a) (i) and (ii)
- (b) (b) (i) and (iii)
- (c) (ii) and (iii)
- (d) (d) (i), (ii) and (iii)

22. In angiosperms, microsporogenesis and megasporogenesis

- (a) form gametes without further divisions.
- (b) involve meiosis.
- (c) occur in ovule.
- (d) occur in anther.

23. Select the correct statement.

- (a) Gymnosperms are both homosporous and heterosporous.
- (b) Salvinia, Ginkgo and Pinus all are gymnosperms.
- (c) Sequoia is one of the tallest trees.
- (d) The leaves of gymnosperms are not well adapted to extremes of climate.

24. Zygotic meiosis is characteristic of ----

- (a) Fucus
- (b) Funaria
- (c) Chlamydomonas
- (d) Marchantia

25. Select the mismatch.

- (a) Cycas - Dioecious
- (b) Salvinia - Heterosporous
- (c) Equisetum - Homosporous
- (d) Pinus - Dioecious

26. Which one is incorrectly matched?

- (a) Uniflagellate gametes - Polysiphonia
- (b) Biflagellate zoospores - Brown algae
- (c) Unicellular organism - Chlorella
- (d) Gemma cups - Marchantia

27. Which of the following statement is correct?

- (a) Ovules are not enclosed by ovary wall in gymnosperms
- (b) Selaginella is heterosporous, while Salvinia is homosporous.
- (c) Stems are usually unbranched in both Cycas and Cedrus.
- (d) Horsetails are gymnosperms.

28. Which one of the following shows isogamy with non - flagellated gametes?

- (a) Sargassum
- (b) Ectocarpus
- (c) Ulothrix
- (d) Spirogyra

29. Which one of the following is incorrect about Chara?

- (a) Upper oogonium and lower round antheridium.
- (b) Globule and nucule present on the same plant.
- (c) Upper antheridium and lower oogonium.
- (d) Globule is male reproductive structure.

30. Male gametes are flagellated in -----

- (a) Anabaena
- (b) Ectocarpus
- (c) Spirogyra
- (d) Polysiphonia

31. Which one is incorrect statement?

- (a) Mucor has biflagellate zoospores.
- (b) Haploid endosperm is typical feature of gymnosperms.
- (c) Brown algae have chlorophyll a and c and fucoxanthin.
- (d) Archegonia are found in bryophyta, pteridophyta and gymnosperms.

32. Read the following five statements (A to E) and select the option with all correct statements.

- (A) Mosses and lichens are the first organisms to colonise a bare rock.
 - (B) Selaginella is a homosporous pteridophyte.
 - (C) Coralloid roots in Cycas have VAM.
 - (D) Main plant body in bryophytes is gametophytes, whereas in pteridophytes it is sporophytic.
 - (E) In gymnosperms, male and female gametophytes are present within sporangia located on sporophyte.
- (a) (B), (C) and (D)
 - (b) (A), (D) and (E)
 - (c) (B), (C) and (E)
 - (d) (A), (C) and (D)

33. In bryophytes, male and female sex organs are called ----- and ----- respectively.

- (a) microsporangia; macrosporangia
- (b) male strobili; female strobili
- (c) antheridia; archegonia
- (d) androecium; gynoecium

34. Red snow causing algae is:

- (a) Chlamydomonas nivalis
- (b) Chlamydomonas reinhardtii
- (c) Chlamydomonas debaryanum
- (d) Chlamydomonas media

35. Identify the group of plants and its example on the basis of the statement given below. "They usually reproduce vegetative by fragmentation and asexually by non – motile gametes."

- (a) Mosses, Funaria
- (b) Red algae, polysiphonia
- (c) Brown algae, laminaria
- (d) Pteridophytes, Selaginella

36. Which of the following pairs is incorrectly matched?

- (a) Chlorophyceae – Major pigments are chl a and b.
- (b) Phaeophyceae - Cell wall is made up of cellulose and lign.
- (c) Rhodophyceae - Stored food is mannitol.
- (d) Chlorophyceae - Cell wall is made up of cellulose.

37. Which one of the following statements concerning the algae is incorrect?

- (a) Most algae are photosynthetic.
- (b) Algae can be classified according to their pigments.
- (c) All algae are filamentous.
- (d) Spirogyra does not produce zoospores.

38. Pyrenoids in green algal cells are related to-----

- (a) Starch formation
- (b) Protein storage
- (c) General metabolism
- (d) Enzyme Secretion

39. What is the number and position of insertions of flagella in rhodophyceae class of algae?

- (a) 2 – 8, equal, apical
- (b) 2, unequal, lateral
- (c) 2 – 6, equal, lateral
- (d) Flagella are absent in rhodophyceae

40. Fusion of two gametes which are dissimilar in size is termed as -----

- (a) isogamous
- (b) oogamous
- (c) anisogamous
- (d) agamous

41. Chemotaxonomy is connected with (a) classification of chemicals found in plants.

- (b) use of phytochemical data in systematic botany.
- (c) application of chemicals on herbarium sheets.
- (d) use of statistical methods in chemical yielding plants.

42. Match the column I with column II and choose the correct option.

Column I (system of	column II (Basis of classification)
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- | | |
|--|---|
| a. Artificial system
Of classification | I. Based on few
Morphological
Characters |
| b. Natural system
Of classification | II. Based on
evolutionary
relationships between
the various organisms |
| c. Phylogenetic
system of
classification | III. Based on natural
affinities among the
organisms and
consider external as
well as internal
features. |

- (a) A – II; B – I; C – III
- (b) A – I; B – III; C – II
- (c) A – III; B – II; C – I
- (d) A – I; B – II; C – III

43. Cytological information like chromosome number, structure, behavior are related with -----

- (a) numerical taxonomy
- (b) cytotaxonomy
- (c) chemotaxonomy
- (d) all of these

44. The natural system of classification for flowering plants was given by-----

- (a) Carolus Linnaeus
- (b) Bentham and Hooker
- (c) Engler and plantel
- (d) R.H. whittaker

45. Which of the following statements are correct?

- i. Genus compriss a group of related species.
 - ii. Taxon represents a taxonomic group of individual organisms
 - iii. Family comprises a group of related genera.
 - iv. Taxonomic category class includes related orders.
- a) (i),(ii) and (iv)
 - b) (ii) and (iv)
 - c) (i),(iii) and (iv)
 - d) (ii),(iii) and (iv)

46. The practical purpose of classification of living organisms is to

- a) Explain the origin of living organisms
- b) Trace the evolution of living organisms
- c) Name the living organisms
- d) Facilitate the identification of unknown organisms

47. Each category of taxonomic hierarchy refers to as a unit of -----

- a) Systematic
- b) Identification
- c) Nomenclature
- d) Classification

48. Which one of the following aspects in an exclusive characteristics of living things/

- a) Isolated metabolic reactions occur in vitro
- b) Increase kin mass from inside only
- c) Perception of events happening in the environment and their memoiry
- d) Increase in mass by accumulation of material both on surface as well as internally

49. Which of the following statement is correct for metabolism?

- a) It is the sum total of all physical reactions taking place inside a living system
- b) All plants, animals, fungi and microbes exhibit metabolism
- c) Isolated metabolic reactions in-vitro are not living but are non-living reactions.
- d) All of the above

50. Which of the following statements regarding growth is incorrect?

- a) In plants, growth by cell division is seen only upto a certain stage
- b) Growth exhibited by non-living objects is by accumulation of material on the surface
- c) A multicellular organism grows by cell division
- d) Growth in in-vitro culture of unicellular organisms can be observed by counting the number of cells