Al Amal Learning Center

Class 9 Biology Chapter 2 MCQ Quiz Online | Level 2

Class 9 Biology · Chapter 2: Biodiversity

Name: _____ Date: _____ Score: _____ / 55

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1. A student pastes pictures of trees, birds, insects, fish and fungi together on one chart. What does the completed chart best represent?

A) Classification
B) Taxonomy
C) Biodiversity
D) Binomial nomenclature

2. In a farming area, birds, insects and fungi decline sharply. Which problem is most likely to follow?

A) Loss of natural pest control and pollination
B) Increase in oxygen
C) Faster formation of new species
D) Stronger crop growth

3. Why can a huge variety of organisms still be studied under one science, biology?

A) They all look alike
B) They all live in water
C) They all share the characteristics of life
D) They all have the same food

4. A student places rose, mango and guava in one group and fowl, pigeon and sparrow in another. On what basis was this grouping done?

A) Colour of the organisms
B) Similarities and differences in characteristics
C) Size of the organisms
D) Place where they were found

5. A scientist compares the rRNA of two bird groups to find how closely they are related. Which field is she working in?

A) Systematics
B) Ecology
C) Physiology
D) Embryology

6. A biologist identifies a newly found beetle, gives it a name and places it in a group. Which branch of biology is this?

A) Genetics
B) Taxonomy
C) Ecology
D) Anatomy

7. Why do biologists classify organisms instead of studying each one separately?

A) To make all organisms identical
B) To study organisms systematically and understand their relationships
C) To reduce the number of species
D) To give every organism a common name

8. A scientist of the 1700s grouped species by physical similarity and also gave organisms two-part Latin names. Who is this?

A) Aristotle
B) John Ray
C) Tournefort
D) Carolus Linnaeus

9. Why did the two-kingdom system become unsatisfactory for Euglena?

A) Euglena is multicellular
B) Euglena has both plant-like and animal-like features
C) Euglena has no cells
D) Euglena is a virus

10. Which classification system first gave unicellular microscopic organisms a kingdom of their own?

A) Two-kingdom system
B) Three-kingdom system
C) Three-domain system
D) Linnaean system

11. In the two-kingdom system, where would mushrooms and bacteria be placed?

A) Animalia
B) Protista
C) Plantae
D) Monera

12. In the five-kingdom system, bacteria and archaea share the kingdom Monera. What justifies this?

A) Both are eukaryotes
B) Both are multicellular
C) Both have prokaryotic cell structure
D) Both have chloroplasts

13. A cell has no nucleus and its genetic material lies free in the cytoplasm. This cell is:

A) Eukaryotic
B) Prokaryotic
C) Plant-like
D) Animal-like

14. Which feature is used to separate organisms into the three domains?

A) Body size
B) Habitat colour
C) Differences in rRNA nucleotide sequence
D) Number of legs

15. A microbe from a hot, highly acidic spring has no peptidoglycan in its cell wall. To which domain does it most likely belong?

A) Bacteria
B) Archaea
C) Eukarya
D) None, it is a virus

16. A microorganism thrives in the very salty water of the Dead Sea. It is called a:

A) Methanogen
B) Halophile
C) Thermoacidophile
D) Protozoan

17. A microbe in a swamp releases methane as a by-product of its metabolism. It is a:

A) Halophile
B) Thermoacidophile
C) Methanogen
D) Saprotroph

18. A prokaryote is killed by a traditional antibiotic and has peptidoglycan in its cell wall. Which domain does it belong to?

A) Bacteria
B) Archaea
C) Eukarya
D) Protista

19. A prokaryote is not affected by some antibiotics that kill bacteria but is affected by some that act on eukaryotes. It is most likely a member of:

A) Bacteria
B) Fungi
C) Archaea
D) Plantae

20. Archaea and Bacteria are both prokaryotes, so why are they placed in separate domains?

A) They differ in rRNA, cell wall chemistry and antibiotic sensitivity
B) Archaea are multicellular
C) Bacteria have a nucleus
D) Archaea are plants

21. An organism is multicellular, has cellulose cell walls and chloroplasts. Which kingdom is it?

A) Fungi
B) Animalia
C) Protista
D) Plantae

22. An organism is multicellular, has chitin in its cell wall and absorbs food from dead matter. Which kingdom is it?

A) Plantae
B) Fungi
C) Animalia
D) Protista

23. A unicellular aquatic eukaryote has chloroplasts and makes its own food. It is best placed among:

A) Animal-like protists
B) Fungi-like protists
C) Plant-like protists
D) Bacteria

24. An organism is multicellular, lacks cell walls and chlorophyll, ingests food and can move from place to place. Which kingdom is it?

A) Animalia
B) Plantae
C) Fungi
D) Protista

25. Why is Amoeba placed in kingdom Protista and not in Animalia?

A) It lives in water
B) It is a unicellular eukaryote
C) It has a cell wall
D) It is prokaryotic

26. Which is the main difference between a mushroom and a moss?

A) Mushroom is a saprotroph with chitin walls, while moss is an autotroph with cellulose walls
B) Mushroom is prokaryotic and moss is eukaryotic
C) Mushroom is a protist and moss is a fungus
D) Both are autotrophs with chitin walls

27. In a forest, a fungus breaks down a fallen dead log. What is its role?

A) Producer
B) Consumer
C) Decomposer
D) Autotroph

28. A cow eats grass. In terms of nutrition, the cow is a:

A) Autotroph and producer
B) Heterotroph and consumer
C) Saprotroph and decomposer
D) Photosynthetic organism

29. Which statement correctly pairs the mode of nutrition with the organism?

A) Fungi: ingestive
B) Animals: absorptive
C) Plants: photosynthetic
D) Bacteria: always autotrophic

30. Two organisms belong to the same class. Which ranks must they also share?

A) Order and family
B) Genus and species
C) Phylum and kingdom
D) Family and genus

31. Two organisms are placed in the same family. Which rank must they also share?

A) Genus
B) Species
C) Order
D) None

32. Which pair of organisms is most closely related?

A) Same kingdom, different phylum
B) Same class, different order
C) Same family, different genus
D) Same genus, different species

33. Table 2.1 shows human and pea classifications. At which rank do they first differ?

A) Class
B) Phylum
C) Genus
D) Kingdom

34. The pea plant's classification uses "Division" where humans have "Phylum". Why?

A) Peas are animals
B) Division is the term used in place of phylum for plants
C) Division is a smaller rank than class
D) Peas have no phylum

35. Which arrangement shows ranks from the smallest group to the largest?

A) Species, Genus, Family, Order, Class, Phylum, Kingdom
B) Kingdom, Phylum, Class, Order, Family, Genus, Species
C) Genus, Species, Family, Order, Class, Phylum, Kingdom
D) Species, Family, Genus, Order, Class, Phylum, Kingdom

36. A horse and a donkey mate and produce a mule that cannot reproduce. What does this show?

A) Horse and donkey are the same species
B) Horse and donkey are different species
C) Mule is a new genus
D) Mule is a prokaryote

37. Why is the mule infertile?

A) Its cells lack a nucleus
B) It has an odd number of chromosomes
C) It has too many genes
D) It is a hybrid of plants

38. Two groups of organisms interbreed freely and produce fertile offspring. What can be concluded?

A) They belong to the same species
B) They belong to different kingdoms
C) They belong to different genera
D) They are prokaryotes

39. Which is the correctly written scientific name of the pea?

A) pisum Sativum
B) Pisum sativum
C) PISUM SATIVUM
D) Pisum Sativum

40. Brinjal is called Baigun in Urdu, Bataoon in Punjabi and Vagton in Sindhi. What problem does this show?

A) Scientific names are unnecessary
B) Common names vary and can cause confusion
C) Brinjal has no species
D) Brinjal is not a plant

41. Potato (Solanum tuberosum) and brinjal (Solanum melongena) share the same:

A) Species
B) Genus
C) Kingdom only
D) Family only

42. A lion and a domestic cat both belong to genus Felis. What does this mean?

A) They are the same species
B) They are different species within one genus
C) They belong to different genera
D) They belong to different kingdoms

43. Why is Latin chosen for scientific names?

A) It is the language of every country
B) It provides a universal language not tied to any one country
C) It is easier than all other languages
D) It was invented by Aristotle

44. A virus is crystallized and stored in a bottle without losing its infectivity. Which characteristic does this show?

A) Living nature
B) Non-living nature
C) Respiration
D) Excretion

45. Why can a virus not reproduce on its own?

A) It has no genetic material
B) It uses the material of the host cell it infects
C) It is too big
D) It is a bacterium

46. Which feature makes viruses appear to be living?

A) They respire
B) They have their own genetic material and cause disease in living cells
C) They are made of cells
D) They have an enzyme system

47. Why are viruses excluded from every domain and kingdom?

A) They are too small
B) They show features of both living and non-living things
C) They are all harmless
D) They are plants

48. A disease-causing particle in plants consists only of circular RNA and has no cell. It is a:

A) Prion
B) Viroid
C) Bacterium
D) Protozoan

49. A disease-causing particle is made only of protein and has no nucleic acid. It is a:

A) Viroid
B) Virus
C) Prion
D) Archaeon

50. Which feature is common to viruses, prions and viroids?

A) Cellular structure
B) Respiration
C) Infectious nature
D) Excretion

51. An organism is eukaryotic, multicellular, has a cell wall and cannot photosynthesize. Which kingdom fits best?

A) Fungi
B) Plantae
C) Animalia
D) Monera

52. A unicellular eukaryote lacking a cell wall is most likely placed in:

A) Plantae
B) Fungi
C) Protista
D) Archaea

53. How does the three-domain system treat bacteria and archaea differently from the five-kingdom system?

A) It places them together in Monera
B) It separates them into two domains
C) It removes them from classification
D) It places them in Protista

54. In 1937, E-Chatton used "Procariotique" and "Eucariotique". What distinction was he drawing?

A) Plants and animals
B) Cells without a nucleus and cells with a nucleus
C) Autotrophs and heterotrophs
D) Living and non-living

55. How does biodiversity help in protecting the environment?

A) It increases flooding
B) It helps regulate climate and protect against flooding
C) It removes oxygen from air
D) It stops the carbon cycle

Answer key

1-C 2-A 3-C 4-B 5-A 6-B 7-B 8-D 9-B 10-B

11-C 12-C 13-B 14-C 15-B 16-B 17-C 18-A 19-C 20-A

21-D 22-B 23-C 24-A 25-B 26-A 27-C 28-B 29-C 30-C

31-C 32-D 33-D 34-B 35-A 36-B 37-B 38-A 39-B 40-B

41-B 42-B 43-B 44-B 45-B 46-B 47-B 48-B 49-C 50-C

51-A 52-C 53-B 54-B 55-B