Al Amal Learning Center

Class 9 Biology Chapter 2 Advanced MCQ Quiz Online | Level 3

Class 9 Biology · Chapter 2: Biodiversity

Name: _____ Date: _____ Score: _____ / 48

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1. Scenario: A student cuts pictures of a mango tree, sparrow, mushroom, Amoeba and bacteria from old magazines and pastes them together on one chart paper. She then sorts them into groups on the basis of their similarities and differences. Question: The chart with all the pictures placed together represents:

A) Classification
B) Taxonomy
C) Biodiversity
D) Systematics

2. Scenario: A student cuts pictures of a mango tree, sparrow, mushroom, Amoeba and bacteria from old magazines and pastes them together on one chart paper. She then sorts them into groups on the basis of their similarities and differences. Question: Sorting the pictures into groups on the basis of similarities and differences is called:

A) Biodiversity
B) Classification
C) Nomenclature
D) Evolution

3. Scenario: A student cuts pictures of a mango tree, sparrow, mushroom, Amoeba and bacteria from old magazines and pastes them together on one chart paper. She then sorts them into groups on the basis of their similarities and differences. Question: If she also identifies and names each organism, she is working in the branch called:

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

4. Scenario: A student cuts pictures of a mango tree, sparrow, mushroom, Amoeba and bacteria from old magazines and pastes them together on one chart paper. She then sorts them into groups on the basis of their similarities and differences. Question: Which aim of classification is best shown by this activity?

A) Destroying habitats
B) Increasing the number of species
C) Giving common names
D) Studying organisms systematically

5. Scenario: A museum timeline describes four scientists of classification. Scientist P was the first person to classify living organisms. Scientist Q divided plants into fifteen groups called genera. Scientist R introduced the taxa of class and species. Scientist S grouped species by similar physical characteristics and gave organisms two-part Latin names. Question: Scientist P is:

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

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A) Tournefort
B) Aristotle
C) Andrea Caesalpino
D) Ernst Haeckel

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A) Tournefort
B) Carl Woese
C) Whittaker
D) Aristotle

8. Scenario: A museum timeline describes four scientists of classification. Scientist P was the first person to classify living organisms. Scientist Q divided plants into fifteen groups called genera. Scientist R introduced the taxa of class and species. Scientist S grouped species by similar physical characteristics and gave organisms two-part Latin names. Question: The naming system introduced by Scientist S is called:

A) Taxonomic hierarchy
B) Systematics
C) Five-kingdom system
D) Binomial nomenclature

9. Scenario: A biologist studies Euglena, a unicellular organism. It has chlorophyll and makes food in sunlight. In darkness it feeds like an animal, and it has no cell wall. Question: Why could Euglena not be placed properly in the two-kingdom system?

A) It is a virus
B) It is multicellular
C) It shows both plant-like and animal-like characteristics
D) It has no cell

10. Scenario: A biologist studies Euglena, a unicellular organism. It has chlorophyll and makes food in sunlight. In darkness it feeds like an animal, and it has no cell wall. Question: Who proposed a third kingdom, Protista, for such organisms?

A) Ernst Haeckel
B) Robert Whittaker
C) Carl Woese
D) Aristotle

11. Scenario: A biologist studies Euglena, a unicellular organism. It has chlorophyll and makes food in sunlight. In darkness it feeds like an animal, and it has no cell wall. Question: Which is the oldest classification system among those mentioned in this chapter?

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

12. Scenario: A biologist studies Euglena, a unicellular organism. It has chlorophyll and makes food in sunlight. In darkness it feeds like an animal, and it has no cell wall. Question: In the five-kingdom system of 1967, bacteria and archaea were combined in the kingdom:

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

13. Scenario: A microbiologist studies three unknown microbes. Microbe X has no nucleus, has peptidoglycan in its cell wall and is killed by traditional antibiotics. Microbe Y has no nucleus, has no peptidoglycan, lives in a boiling acidic spring and is affected by some antibiotics that act on eukaryotes. Microbe Z has a nucleus, has no peptidoglycan and is resistant to traditional antibacterial antibiotics. Question: Microbe X belongs to the domain:

A) Bacteria
B) Archaea
C) Eukarya
D) None of these

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

15. Scenario: A microbiologist studies three unknown microbes. Microbe X has no nucleus, has peptidoglycan in its cell wall and is killed by traditional antibiotics. Microbe Y has no nucleus, has no peptidoglycan, lives in a boiling acidic spring and is affected by some antibiotics that act on eukaryotes. Microbe Z has a nucleus, has no peptidoglycan and is resistant to traditional antibacterial antibiotics. Question: Microbe Z belongs to the domain:

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

16. Scenario: A microbiologist studies three unknown microbes. Microbe X has no nucleus, has peptidoglycan in its cell wall and is killed by traditional antibiotics. Microbe Y has no nucleus, has no peptidoglycan, lives in a boiling acidic spring and is affected by some antibiotics that act on eukaryotes. Microbe Z has a nucleus, has no peptidoglycan and is resistant to traditional antibacterial antibiotics. Question: What is common between Microbe X and Microbe Y?

A) Both are eukaryotes
B) Both have peptidoglycan
C) Both live only in extreme conditions
D) Both are prokaryotes

17. Scenario: Three samples of archaea were collected. Sample 1 came from a marsh, where the microbes release methane gas. Sample 2 came from a very salty lake. Sample 3 came from a hot, highly acidic spring. Question: The microbes in Sample 1 are called:

A) Halophiles
B) Methanogens
C) Thermoacidophiles
D) Protozoa

18. Scenario: Three samples of archaea were collected. Sample 1 came from a marsh, where the microbes release methane gas. Sample 2 came from a very salty lake. Sample 3 came from a hot, highly acidic spring. Question: The microbes in Sample 2 are called:

A) Halophiles
B) Methanogens
C) Thermoacidophiles
D) Saprotrophs

19. Scenario: Three samples of archaea were collected. Sample 1 came from a marsh, where the microbes release methane gas. Sample 2 came from a very salty lake. Sample 3 came from a hot, highly acidic spring. Question: The microbes in Sample 3 are called:

A) Halophiles
B) Methanogens
C) Autotrophs
D) Thermoacidophiles

20. Scenario: Three samples of archaea were collected. Sample 1 came from a marsh, where the microbes release methane gas. Sample 2 came from a very salty lake. Sample 3 came from a hot, highly acidic spring. Question: Archaea can survive in such extreme environments because their:

A) Cell wall is made of cellulose
B) Cells have chloroplasts
C) Membrane can withstand higher temperature and stronger acid concentration
D) Cells have a nucleus

21. Scenario: Four eukaryotic organisms were observed. Organism P is unicellular, aquatic, ingests food and has no cell wall (like Amoeba). Organism Q is multicellular, has chitin in its cell wall, grows on stale bread and absorbs food. Organism R is multicellular, has a cellulose cell wall and chloroplasts with chlorophyll. Organism S is multicellular, has no cell wall or chlorophyll, ingests food and moves from place to place. Question: Organism P belongs to the kingdom:

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

22. Scenario: Four eukaryotic organisms were observed. Organism P is unicellular, aquatic, ingests food and has no cell wall (like Amoeba). Organism Q is multicellular, has chitin in its cell wall, grows on stale bread and absorbs food. Organism R is multicellular, has a cellulose cell wall and chloroplasts with chlorophyll. Organism S is multicellular, has no cell wall or chlorophyll, ingests food and moves from place to place. Question: Organism Q belongs to the kingdom:

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

23. Scenario: Four eukaryotic organisms were observed. Organism P is unicellular, aquatic, ingests food and has no cell wall (like Amoeba). Organism Q is multicellular, has chitin in its cell wall, grows on stale bread and absorbs food. Organism R is multicellular, has a cellulose cell wall and chloroplasts with chlorophyll. Organism S is multicellular, has no cell wall or chlorophyll, ingests food and moves from place to place. Question: Organism R belongs to the kingdom:

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

24. Scenario: Four eukaryotic organisms were observed. Organism P is unicellular, aquatic, ingests food and has no cell wall (like Amoeba). Organism Q is multicellular, has chitin in its cell wall, grows on stale bread and absorbs food. Organism R is multicellular, has a cellulose cell wall and chloroplasts with chlorophyll. Organism S is multicellular, has no cell wall or chlorophyll, ingests food and moves from place to place. Question: Which pair of organisms differs in the mode of heterotrophic nutrition?

A) P and S
B) R and S
C) P and R
D) Q and S

25. Scenario: In a village pond, algae and water plants make their own food. A buffalo grazes on grass near the pond. Mushrooms and bacteria break down fallen dead leaves on the bank. Question: Algae and water plants are called:

A) Consumers
B) Producers
C) Decomposers
D) Saprotrophs

26. Scenario: In a village pond, algae and water plants make their own food. A buffalo grazes on grass near the pond. Mushrooms and bacteria break down fallen dead leaves on the bank. Question: In terms of nutrition, the buffalo is a:

A) Heterotroph
B) Autotroph
C) Saprotroph
D) Producer

27. Scenario: In a village pond, algae and water plants make their own food. A buffalo grazes on grass near the pond. Mushrooms and bacteria break down fallen dead leaves on the bank. Question: Mushrooms and bacteria on dead leaves act as:

A) Producers
B) Consumers
C) Decomposers
D) Autotrophs

28. Scenario: In a village pond, algae and water plants make their own food. A buffalo grazes on grass near the pond. Mushrooms and bacteria break down fallen dead leaves on the bank. Question: Which mode of nutrition do the mushrooms show?

A) Absorptive
B) Ingestive
C) Photosynthetic
D) Autotrophic

29. Scenario: A student compares the classification of a human and a pea plant. Human: Animalia, Chordata, Mammalia, Primate, Homonidae, Homo, Homo sapiens. Pea: Plantae, Magnoliophyta (Division), Magnoliopsida, Fabales, Fabaceae, Pisum, Pisum sativum. Question: At which rank do the two organisms first differ?

A) Domain
B) Kingdom
C) Genus
D) Species

30. Scenario: A student compares the classification of a human and a pea plant. Human: Animalia, Chordata, Mammalia, Primate, Homonidae, Homo, Homo sapiens. Pea: Plantae, Magnoliophyta (Division), Magnoliopsida, Fabales, Fabaceae, Pisum, Pisum sativum. Question: Why is the term "Division" used for the pea instead of "Phylum"?

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

31. Scenario: A student compares the classification of a human and a pea plant. Human: Animalia, Chordata, Mammalia, Primate, Homonidae, Homo, Homo sapiens. Pea: Plantae, Magnoliophyta (Division), Magnoliopsida, Fabales, Fabaceae, Pisum, Pisum sativum. Question: Fabaceae is a family. A family is a group of related:

A) Orders
B) Classes
C) Species
D) Genera

32. Scenario: A student compares the classification of a human and a pea plant. Human: Animalia, Chordata, Mammalia, Primate, Homonidae, Homo, Homo sapiens. Pea: Plantae, Magnoliophyta (Division), Magnoliopsida, Fabales, Fabaceae, Pisum, Pisum sativum. Question: Which rank is the most basic unit of classification?

A) Species
B) Genus
C) Family
D) Order

33. Scenario: A male donkey and a female horse mate and produce a mule. The mule is healthy and strong, but it cannot reproduce. Question: Why is the mule not regarded as a species?

A) It is too strong
B) It is infertile and cannot reproduce
C) It has no genus
D) It lives with humans

34. Scenario: A male donkey and a female horse mate and produce a mule. The mule is healthy and strong, but it cannot reproduce. Question: The mule cannot reproduce because it has:

A) An odd number of chromosomes
B) No chromosomes
C) No genes
D) No nucleus

35. Scenario: A male donkey and a female horse mate and produce a mule. The mule is healthy and strong, but it cannot reproduce. Question: A species is best defined as a group of similar organisms that:

A) Live in the same place
B) Look the same
C) Eat the same food
D) Interbreed and produce fertile offspring

36. Scenario: A male donkey and a female horse mate and produce a mule. The mule is healthy and strong, but it cannot reproduce. Question: The result of this cross shows that the horse and donkey are:

A) The same species
B) The same individual
C) Different species
D) Different kingdoms

37. Scenario: Brinjal is called Baigun in Urdu, Bataoon in Punjabi and Vagton in Sindhi. Its biological name is Solanum melongena. Potato is Solanum tuberosum. Question: What problem do the different local names show?

A) Common names vary and cause confusion
B) Brinjal has no species
C) Brinjal is an animal
D) Scientific names are unnecessary

38. Scenario: Brinjal is called Baigun in Urdu, Bataoon in Punjabi and Vagton in Sindhi. Its biological name is Solanum melongena. Potato is Solanum tuberosum. Question: The genus of brinjal is:

A) melongena
B) tuberosum
C) Solanum
D) Oryza

39. Scenario: Brinjal is called Baigun in Urdu, Bataoon in Punjabi and Vagton in Sindhi. Its biological name is Solanum melongena. Potato is Solanum tuberosum. Question: Which is the correct way to write the biological name of brinjal?

A) solanum Melongena
B) Solanum melongena
C) SOLANUM MELONGENA
D) Solanum Melongena

40. Scenario: Brinjal is called Baigun in Urdu, Bataoon in Punjabi and Vagton in Sindhi. Its biological name is Solanum melongena. Potato is Solanum tuberosum. Question: Scientific names are written in Latin because:

A) Latin is easy to speak
B) It is spoken in every country
C) It was a government rule
D) It is a universal language not tied to one country

41. Scenario: A scientist isolates a particle. It can be crystallized and stored in a bottle, does not respire and lacks a cell. When placed in a host cell, it reproduces using the host's material, carries RNA as genetic material and causes disease. Question: Crystallization and storage in a bottle show that the particle has:

A) Living characteristics
B) Non-living characteristics
C) A cellular structure
D) An enzyme system

42. Scenario: A scientist isolates a particle. It can be crystallized and stored in a bottle, does not respire and lacks a cell. When placed in a host cell, it reproduces using the host's material, carries RNA as genetic material and causes disease. Question: Reproduction inside the host cell and having RNA show that the particle has:

A) Living characteristics
B) Non-living characteristics
C) No genetic material
D) A cell wall

43. Scenario: A scientist isolates a particle. It can be crystallized and stored in a bottle, does not respire and lacks a cell. When placed in a host cell, it reproduces using the host's material, carries RNA as genetic material and causes disease. Question: Why is this particle not included in any domain or kingdom?

A) It is too small
B) It is harmless
C) It is at the borderline of living and non-living
D) It is a plant

44. Scenario: A scientist isolates a particle. It can be crystallized and stored in a bottle, does not respire and lacks a cell. When placed in a host cell, it reproduces using the host's material, carries RNA as genetic material and causes disease. Question: An infectious particle of plants made only of circular RNA is called a:

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

45. Scenario: A timeline of classification shows: in 1937, E-Chatton used the terms "Procariotique" and "Eucariotique"; in 1967, Robert Whittaker proposed the five-kingdom system; in 1990, Carl Woese proposed a system that groups kingdoms into larger categories. Question: The terms used by E-Chatton in 1937 distinguished cells:

A) With and without chlorophyll
B) With and without a cell wall
C) With and without a nucleus
D) With and without mitochondria

46. Scenario: A timeline of classification shows: in 1937, E-Chatton used the terms "Procariotique" and "Eucariotique"; in 1967, Robert Whittaker proposed the five-kingdom system; in 1990, Carl Woese proposed a system that groups kingdoms into larger categories. Question: The system proposed by Carl Woese is called the:

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

47. Scenario: A timeline of classification shows: in 1937, E-Chatton used the terms "Procariotique" and "Eucariotique"; in 1967, Robert Whittaker proposed the five-kingdom system; in 1990, Carl Woese proposed a system that groups kingdoms into larger categories. Question: A domain is a taxonomic category:

A) Below the genus
B) Above the kingdom
C) Equal to the family
D) Between class and order

48. Scenario: A timeline of classification shows: in 1937, E-Chatton used the terms "Procariotique" and "Eucariotique"; in 1967, Robert Whittaker proposed the five-kingdom system; in 1990, Carl Woese proposed a system that groups kingdoms into larger categories. Question: The three-domain classification is based on:

A) Size of the organisms
B) Habitat colour
C) Number of cells only
D) rRNA nucleotide sequence, membrane lipid structure and antibiotic sensitivity

Answer key

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

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

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

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

41-B 42-A 43-C 44-D 45-C 46-A 47-B 48-D