

The Living World — CBSE Pattern Test 2

Class 11 Biology · 90 minutes · 40 marks · Sections A–D with answer key · Narayan Gurukul Academy

Test 2 — CBSE Pattern (90 minutes, 40 marks)

Class 11 Biology · The Living World · Narayan Gurukul Academy (ClassApna)

General Instructions: (1) This paper has four sections — Section A (1×10), Section B (2×4), Section C (3×4) and Section D (5×2) — total 40 marks. Time allowed: 90 minutes.
(2) All questions are compulsory. No overall choice is given; internal choice, where allowed, is clearly marked.
(3) For MCQ questions choose the single correct option; for VSA answers write a single line.
(4) Take $g = 10 \text{ m/s}^2$. All symbols carry their usual meaning. Use of a calculator is not permitted.

Section A — MCQ & VSA ($10 \times 1 = 10$ marks)

- Which feature is exhibited by all living organisms without exception?
 - Consciousness
 - Reproduction
 - Growth
 - Movement
- The term 'biodiversity' refers to
 - the variety of living organisms
 - the number of ecosystems
 - the total biomass
 - the number of genes
- Biological museums preserve specimens in
 - preservative solutions
 - dry air only
 - deep freeze
 - acid baths
- The International Code for Botanical Nomenclature is abbreviated
 - ICBN
 - ICZN
 - ICNB
 - ICPB
- A group of related genera forms a
 - family
 - order
 - class
 - tribe
- Species is defined as a group of individuals with
 - fundamental similarities
 - different characters
 - no interbreeding
 - different genetic makeup
- Zoological parks house
 - wild animals in protected conditions

- (B) only plants
 - (C) only microbes
 - (D) preserved specimens
8. Systematics is the study of
- (A) the diversity of organisms and their relationships
 - (B) only naming
 - (C) cell structure
 - (D) molecular biology
9. Define taxonomy.
10. Write the scientific name of mango.

Section B — Short Answer I ($4 \times 2 = 8$ marks)

11. Why is classification necessary?
12. What are the uses of a biological museum?
13. State the scope of systematics.
14. What is a family?

Section C — Short Answer II ($4 \times 3 = 12$ marks)

15. Distinguish between taxonomy and systematics.
16. Explain how a dichotomous key is used to identify organisms.
17. Define species and give one example.
18. Describe the four processes of taxonomy.

Section D — Long Answers ($2 \times 5 = 10$ marks)

19. (a) State any five rules of binomial nomenclature. (b) Explain the advantages of binomial nomenclature.
20. (a) Trace the taxonomic hierarchy of the housefly from species to kingdom. (b) Explain the relationship between classification and nomenclature.

Answer Key (Marking Scheme)

- Q1 — (A) Consciousness. Q2 — (A) the variety of living organisms. Q3 — (A) preservative solutions. Q4 — (A) ICBN. Q5 — (A) family. Q6 — (A) fundamental similarities. Q7 — (A) wild animals in protected conditions. Q8 — (A) the diversity of organisms and their relationships.
- Q9 — Taxonomy is the science of identifying, naming and classifying organisms.
- Q10 — *Mangifera indica*.
- Q11 — Because of the huge diversity of organisms, classification organises them into groups for study.
- Q12 — Museums preserve plant and animal specimens in preservative solutions and display them for study and reference.
- Q13 — Identification, nomenclature, classification and evolutionary relationships of organisms.
- Q14 — A family is a taxonomic category made of a group of related genera.
- Q15 — Taxonomy deals with identification, naming and classification; systematics additionally includes comparative and evolutionary relationships.

Q16 — A dichotomous key presents paired contrasting statements; each choice leads to the next pair until the organism is identified.

Q17 — Species is a group of individuals with fundamental similarities that can interbreed; e.g. *Mangifera indica*.

Q18 — Characterisation, identification, classification and nomenclature.

Q19 — (a) Latin/italicised; two words; genus capitalised, species lowercase; author's name after species; underlined when handwritten. (b) Provides a universal, stable, unambiguous name independent of language or region.

Q20 — (a) *Musca domestica* → *Musca* → *Muscidae* → *Diptera* → *Insecta* → *Arthropoda* → *Animalia*. (b) Classification groups organisms; nomenclature assigns each a scientific name, so the two together organise and label biodiversity.