



EDUSAMBAM ASSESSMENT SERIES

Biology Comprehensive Practice Test 1

PRINTABLE PRACTICE WORKSHEET

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Candidate Name:		Roll No.:	
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Subject	Biology	Topic	Biology Comprehensive Practice Test 1	Total Marks	100
Total Questions	45	Time Allowed	1 Hour (60 minutes)	Version	A

GENERAL INSTRUCTIONS

1. Read each question carefully before answering.
2. For Section A and Section B, mark one answer only.
3. For Sections C and E, write your answer clearly in the space provided.
4. For Section D, write the correct letter from Column B against each item in Column A.
5. Do not use correction fluid. Keep all answers clear and legible.
6. This worksheet is prepared from the EDUSAMBAM practice assessment supplied for this paper.

PAPER PATTERN

Section	Questions	Marks Each	Total
Section A — Multiple Choice	15	2	30
Section B — True / False	10	2	20
Section C — Fill in the Blank	10	2	20
Section D — Column Matching	5 pairs	2	10
Section E — Short Answer	5	4	20
Total	45	—	100

Section A — Multiple Choice

30 marks

1. Which statement best explains why biology is considered an integrative science?

Basic • 2 pts

A. It connects processes across molecular, cellular, organismal and ecological levels

B. It studies only human anatomy

C. It avoids chemistry and physics

D. It focuses only on naming organisms

Answer: ☐A ☐B ☐C ☐D

2. Which structure is the basic unit of life?

Basic • 2 pts

A. Tissue

B. Cell

C. Organ

D. Ecosystem

Answer: ☐A ☐B ☐C ☐D

3. A cell membrane is especially important because it:

Basic • 2 pts

A. Stores all hereditary information

B. Controls movement of substances between the cell and its surroundings

C. Produces every protein directly

D. Prevents all substances from entering

Answer: ☐A ☐B ☐C ☐D

4. Which sequence moves from smaller to larger levels of biological organisation?

Basic • 2 pts

A. Organ → tissue → cell → organism

B. Cell → tissue → organ → organism

C. Ecosystem → organism → organ → cell

D. Organism → organ → tissue → cell

Answer: ☐A ☐B ☐C ☐D

5. An ecosystem includes:

Intermediate • 2 pts

A. Only animals in a habitat

B. Only plants and microorganisms

C. Living organisms plus the physical environment and their interactions

D. A single population only

Answer: ☐A ☐B ☐C ☐D

6. Which example is a population?
A. All organisms in a pond
C. A frog and the water around it
Answer: ☐A ☐B ☐C ☐D

B. All frogs of one species living in a pond
D. All ecosystems on Earth

Intermediate • 2 pts

7. Biodiversity can include variation:
A. Only between ecosystems
C. Within genes, among species and among ecosystems
Answer: ☐A ☐B ☐C ☐D

B. Only among individual humans
D. Only in body size

Intermediate • 2 pts

8. A hypothesis is strongest scientifically when it:
A. Cannot be tested
C. Is accepted by everyone
Answer: ☐A ☐B ☐C ☐D

B. Produces testable predictions
D. Is based only on opinion

Intermediate • 2 pts

9. Homeostasis refers to:
A. Permanent growth
C. Movement between ecosystems
Answer: ☐A ☐B ☐C ☐D

B. Regulation of internal conditions within suitable ranges
D. Evolution of a species

Intermediate • 2 pts

10. Natural selection can change a population when:
A. Heritable variation affects reproductive success in a particular environment
C. All individuals are genetically identical
Answer: ☐A ☐B ☐C ☐D

B. Individuals consciously choose useful mutations
D. Traits are never inherited

Intermediate • 2 pts

11. Which observation is quantitative?
A. The leaf looks darker
C. The fish behaved unusually
Answer: ☐A ☐B ☐C ☐D

B. The plant grew 4.2 cm in seven days
D. The solution became cloudy

Intermediate • 2 pts

12. A food web is more informative than a simple food chain because it:
A. Shows only one feeding relationship
C. Excludes decomposers
Answer: ☐A ☐B ☐C ☐D

B. Shows interconnected feeding relationships among organisms
D. Measures population size directly

Advanced • 2 pts

13. If a habitat loses a major producer, the first major ecological effect is likely to involve:
A. Reduced energy entering the food web
C. No change because consumers make their own food
Answer: ☐A ☐B ☐C ☐D

B. Immediate creation of a new species
D. An increase in every population

Advanced • 2 pts

14. Which statement best connects evolution and biodiversity?
A. Evolution contributes to diversification and differences among lineages
C. Biodiversity prevents evolution
Answer: ☐A ☐B ☐C ☐D

B. Evolution eliminates all variation
D. They are unrelated processes

Advanced • 2 pts

15. A strong biological explanation of a declining frog population should first:
A. Assume one cause
C. Ignore environmental conditions
Answer: ☐A ☐B ☐C ☐D

B. Identify evidence and consider interacting factors such as habitat, disease, predation and environmental change
D. Use population size without a time frame

Advanced • 2 pts

Section B — True / False

20 marks

16. All living organisms are multicellular.
A. True ☐ **B.** False ☐

Basic • 2 pts

17. Cells maintain organised internal processes using energy and information.
A. True ☐ **B.** False ☐

Basic • 2 pts

18. A community includes organisms of different species living and interacting in an area.
A. True ☐ **B.** False ☐

Basic • 2 pts

19. An ecosystem contains only living components.
A. True ☐ **B.** False ☐

Basic • 2 pts

20. Homeostasis means that every internal condition remains perfectly constant.
A. True ☐ **B.** False ☐

Intermediate • 2 pts

21. A scientific conclusion can be revised when strong new evidence appears.
A. True ☐ **B.** False ☐

Intermediate • 2 pts

22. Natural selection acts on populations across generations, not because individuals deliberately choose to evolve.
A. True ☐ **B.** False ☐

23. Biodiversity refers only to the number of species in a habitat.
A. True ☐ **B.** False ☐

24. Energy generally enters many ecosystems through producers and is transferred through feeding relationships.
A. True ☐ **B.** False ☐

25. A correlation by itself always proves that one biological variable causes another.
A. True ☐ **B.** False ☐

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Section C — Fill in the Blank

20 marks

26. The basic structural and functional unit of life is the _____.
Answer: _____

27. The maintenance of relatively stable internal conditions is called _____.
Answer: _____

28. A group of organisms of the same species living in an area is a _____.
Answer: _____

29. The variety of life at genetic, species and ecosystem levels is called _____.
Answer: _____

30. Organisms that make organic food from inorganic sources are called _____.
Answer: _____

31. A proposed explanation that can be tested is a _____.
Answer: _____

32. The process by which populations change across generations is called _____.
Answer: _____

33. The biological study of interactions between organisms and their environment is called _____.
Answer: _____

34. The smallest level in this sequence—cell, tissue, organ—is the _____.
Answer: _____

35. A network of interconnected food chains is a _____.
Answer: _____

Basic • 2 pts

Basic • 2 pts

Basic • 2 pts

Basic • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Section D — Column Matching

10 marks

36-40. Match each term to its correct definition.

Column A	Answer	Column B
Cell	_____	A. Members of one species in an area
Population	_____	B. Organisms plus their physical environment
Ecosystem	_____	C. Regulation of internal conditions
Homeostasis	_____	D. Variety of life at multiple levels
Biodiversity	_____	E. Basic unit of life

Section E — Short Answer

20 marks

41. Explain two reasons why a cell must regulate what enters and leaves it.

42. Distinguish a population, community and ecosystem using one consistent example.

Advanced • 4 pts

Advanced • 4 pts

43. Explain how natural selection can increase the frequency of an inherited trait without an organism intentionally changing its genes. Advanced · 4 pts

44. A pond loses much of its plant life. Predict two likely consequences and explain the links. Advanced · 4 pts

45. Why is evidence from more than one biological level often useful when explaining a complex problem? Advanced · 4 pts

Candidate Signature: _____ **Invigilator Signature:** _____

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Marks Obtained: _____ / 100	Checked By: _____
Result / Grade: _____	Date Checked: _____

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Biology Comprehensive Practice Test 1 — Answer Key

Teacher reference: equivalent grammatically correct wording is acceptable for open-ended items when the meaning is preserved.

Section A — Multiple Choice

- | | |
|------|-------|
| 1. A | 9. B |
| 2. B | 10. A |
| 3. B | 11. B |
| 4. B | 12. B |
| 5. C | 13. A |
| 6. B | 14. A |
| 7. C | 15. B |
| 8. B | |

Section B — True / False

- | | |
|-----------|-----------|
| 16. True | 21. False |
| 17. False | 22. False |
| 18. False | 23. True |
| 19. True | 24. False |
| 20. True | 25. True |

Section C — Fill in the Blank

- | | |
|------------------|----------------|
| 26. cell | 31. hypothesis |
| 27. homeostasis | 32. evolution |
| 28. population | 33. ecology |
| 29. biodiversity | 34. cell |
| 30. producers | 35. food web |

Section D — Column Matching

- | | |
|--------------------|----------------------|
| 36. Cell — E | 39. Homeostasis — C |
| 37. Population — A | 40. Biodiversity — D |
| 38. Ecosystem — B | |

Section E — Short Answer (Model Answers)

- 41.** maintaining; internal; conditions; obtaining; needed
- 42.** define; level; show; population; species
- 43.** link; variation; heritability; differential; survival
- 44.** connect; reduced; primary; production; less
- 45.** molecular; cellular; mechanisms; organismal; traits