

EDUSAMBAM ASSESSMENT SERIES

Biology Comprehensive Practice Test 4

PRINTABLE PRACTICE WORKSHEET

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Candidate Name:

Roll No.:

Class / Grade:

Date:

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Test Centre:

Subject	Biology	Topic	Biology Comprehensive Practice Test 4	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. Bacteria are generally classified as:

- A.** Prokaryotic cells
C. Viruses with nuclei

- B.** Eukaryotic animals
D. Multicellular fungi

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

2. Viruses are best described as:

- A.** Acellular infectious agents that depend on host cells for replication
C. Photosynthetic bacteria

- B.** Independent cells with ribosomes
D. Multicellular parasites

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

3. A pathogen is:

- A.** An agent capable of causing disease
C. A white blood cell

- B.** Any harmless microorganism
D. A vaccine ingredient in every case

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

4. A common route by which respiratory pathogens spread is:

- A.** Respiratory droplets or aerosols
C. Photosynthesis

- B.** DNA inheritance only
D. Bone growth

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

5. Which is a key function of mucus and cilia in airways?

- A.** Trapping and moving particles away from deeper tissues
C. Digesting red blood cells

- B.** Producing antibodies directly
D. Making ATP in alveoli

Answer: ☐A ☐B ☐C ☐D

Intermediate • 2 pts

6. Phagocytes contribute to defence by: A. Engulfing and digesting microbes or debris C. Making insulin Answer: ☐A ☐B ☐C ☐D	B. Producing red blood cells D. Carrying oxygen with haemoglobin	Intermediate • 2 pts
7. A major advantage of adaptive immunity is: A. Specificity and memory C. No need for immune cells Answer: ☐A ☐B ☐C ☐D	B. Complete absence of inflammation D. Permanent protection against every pathogen	Intermediate • 2 pts
8. Antibodies can help defend against pathogens by: A. Binding specific antigens and interfering with pathogens or marking them for other immune mechanisms C. Destroying every cell in the body Answer: ☐A ☐B ☐C ☐D	B. Replacing antibiotics in every infection D. Changing bacterial DNA directly	Intermediate • 2 pts
9. Vaccination is a form of: A. Immune priming that can establish memory C. Passive breathing exercise Answer: ☐A ☐B ☐C ☐D	B. Antibiotic treatment D. Cellular respiration	Intermediate • 2 pts
10. Antibiotic resistance is a concern because: A. Drug-resistant bacteria can survive treatment and spread C. Antibiotics make viruses bacterial Answer: ☐A ☐B ☐C ☐D	B. Bacteria stop evolving D. Resistance always disappears after one generation	Intermediate • 2 pts
11. Which sequence best represents an infection process? A. Entry → replication/colonisation → host response → possible transmission C. Digestion → mutation → bone formation Answer: ☐A ☐B ☐C ☐D	B. Vaccination → photosynthesis → reproduction D. Cell division → respiration → sunlight	Intermediate • 2 pts
12. A fever can be part of: A. The body's regulated immune response to infection C. Only a fungal life cycle Answer: ☐A ☐B ☐C ☐D	B. Only genetic inheritance D. A complete absence of inflammation	Advanced • 2 pts
13. Which statement about normal microbiota is most accurate? A. Many microorganisms associated with the body are harmless or beneficial, though context can matter C. Microbiota are always viruses Answer: ☐A ☐B ☐C ☐D	B. All microbes are pathogens D. Normal microbiota never interact with immunity	Advanced • 2 pts
14. An immune disorder can result from: A. Excessive, misdirected or insufficient immune function C. Only lack of oxygen Answer: ☐A ☐B ☐C ☐D	B. Only bacterial reproduction D. Only a high-fat diet	Advanced • 2 pts
15. The strongest way to understand host-pathogen interaction is to consider: A. Pathogen traits, host barriers, immune responses, transmission and environmental context together C. Only antibody concentration Answer: ☐A ☐B ☐C ☐D	B. Only the pathogen name D. Only the temperature	Advanced • 2 pts

Section B — True / False	20 marks
16. All microorganisms cause disease. A. True ☐ B. False ☐	Basic • 2 pts
17. Some bacteria are beneficial to humans and ecosystems. A. True ☐ B. False ☐	Basic • 2 pts
18. Viruses generally require host cells to reproduce. A. True ☐ B. False ☐	Basic • 2 pts
19. A pathogen must always cause symptoms immediately after entering a host. A. True ☐ B. False ☐	Basic • 2 pts
20. Phagocytosis is a form of cellular engulfment. A. True ☐ B. False ☐	Intermediate • 2 pts

21. Antibodies recognise targets with specificity.
A. True ☐ B. False ☐

22. Vaccines eliminate all pathogens from the environment.
A. True ☐ B. False ☐

23. Antimicrobial resistance can make infections harder to treat.
A. True ☐ B. False ☐

24. The immune system includes physical barriers as well as specialised cells and molecules.
A. True ☐ B. False ☐

25. Transmission depends only on the pathogen and never on host or environmental factors.
A. True ☐ B. False ☐

Intermediate · 2 pts

Intermediate · 2 pts

Intermediate · 2 pts

Intermediate · 2 pts

Intermediate · 2 pts

Section C — Fill in the Blank

20 marks

26. A microorganism capable of causing disease is a _____.
Answer: _____

27. Viruses are generally described as _____ because they lack cellular organisation.
Answer: _____

28. Bacteria are _____ organisms.
Answer: _____

29. Cells that engulf particles and microbes are called _____.
Answer: _____

30. A molecule recognised by a specific immune receptor is an _____.
Answer: _____

31. Proteins that specifically bind antigens are called _____.
Answer: _____

32. A population of microorganisms living in or on the body can form the normal _____.
Answer: _____

33. The spread of a pathogen from one host to another is called _____.
Answer: _____

34. Reduced susceptibility of a microorganism to a drug is called antimicrobial _____.
Answer: _____

35. The body's first physical barriers include skin and _____ membranes.
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
Bacterium	_____	A. Acellular infectious agent
Virus	_____	B. Engulfs particles or microbes
Phagocyte	_____	C. Specific immune-binding protein
Antibody	_____	D. Prepares adaptive immune memory
Vaccine	_____	E. Prokaryotic microorganism

Section E — Short Answer

20 marks

41. Explain why the presence of a microorganism does not automatically mean that disease will occur.

Advanced · 4 pts

42. Describe how innate and adaptive immunity can cooperate during an infection.

Advanced · 4 pts

43. Explain how antibiotic use can select for resistant bacteria.

Advanced · 4 pts

44. Why can respiratory infections spread efficiently even when an infected person does not have severe symptoms?

Advanced · 4 pts

45. Explain why vaccination is considered prevention rather than a treatment that directly kills pathogens.

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 4 — 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

2. A

3. A

4. A

5. A

6. A

7. A

8. A
9. A

10. A

11. A

12. A

13. A

14. A

15. A

Section B — True / False

16. True

17. False

18. False

19. True

20. False
21. False

22. True

23. False

24. False

25. True

Section C — Fill in the Blank

26. pathogen

27. acellular

28. prokaryotic

29. phagocytes

30. antigen
31. antibodies

32. microbiota

33. transmission

34. resistance

35. mucous

Section D — Column Matching

36. Bacterium — E

37. Virus — A

38. Phagocyte — B
39. Antibody — C

40. Vaccine — D

Section E — Short Answer (Model Answers)

41. pathogenicity; dose; exposure; route; host

42. connect; barriers; phagocytes; inflammation; antigen

43. variation; differential; survival; under; drug

44. transmission; before; around; symptoms; respiratory

45. distinguish; immune; preparation; memory; direct