

Human Health and Disease — CBSE Pattern Test 1

Class 12 Biology · 90 minutes · 40 marks · Sections A–D with answer key · Narayan Gurukul Academy

Test 1 — CBSE Pattern (90 minutes, 40 marks)

Class 12 Biology · Human Health and Disease · 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)

1. Malaria is caused by
 - (A) Plasmodium
 - (B) Wuchereria
 - (C) Ascaris
 - (D) Entamoeba
2. The antibody involved in allergies is
 - (A) IgE
 - (B) IgG
 - (C) IgM
 - (D) IgA
3. Cancer cells that spread to distant sites cause
 - (A) metastasis
 - (B) benign growth
 - (C) allergy
 - (D) autoimmunity
4. HIV destroys
 - (A) helper T cells
 - (B) B cells
 - (C) red blood cells
 - (D) platelets
5. The primary lymphoid organ is the
 - (A) thymus
 - (B) spleen
 - (C) tonsil
 - (D) appendix
6. Typhoid is caused by
 - (A) Salmonella typhi
 - (B) Plasmodium
 - (C) HIV
 - (D) Ascaris
7. Benign tumours are
 - (A) confined

- (B) spreading
 - (C) metastatic
 - (D) malignant
8. AIDS is diagnosed by
- (A) ELISA
 - (B) X-ray
 - (C) MRI
 - (D) biopsy
9. What is immunity?
10. What is metastasis?

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

11. Name the pathogen of malaria.
12. What is an allergen?
13. Give one example of autoimmunity.
14. How is AIDS transmitted?

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

15. Differentiate between innate and acquired immunity.
16. Differentiate between active and passive immunity.
17. Differentiate between benign and malignant tumours.
18. Mention the measures for the prevention of drug abuse.

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

19. (a) Describe the barriers of innate immunity. (b) Explain the process of vaccination.
20. (a) Describe the replication of HIV in the human body. (b) Describe the detection and treatment of cancer.

Answer Key (Marking Scheme)

- Q1 — (A) Plasmodium. Q2 — (A) IgE. Q3 — (A) metastasis. Q4 — (A) helper T cells. Q5 — (A) thymus. Q6 — (A) Salmonella typhi. Q7 — (A) confined. Q8 — (A) ELISA.
- Q9 — Immunity is the body's ability to resist disease.
- Q10 — Metastasis is the spread of cancer cells to distant sites.
- Q11 — Plasmodium.
- Q12 — An allergen is a substance that triggers an allergic reaction.
- Q13 — Rheumatoid arthritis.
- Q14 — By unsafe sex, infected blood and from mother to child.
- Q15 — Innate: non-specific, present at birth; acquired: specific, with memory.
- Q16 — Active: produced by the body (slow, lasting); passive: ready-made (fast, short-lived).
- Q17 — Benign: confined; malignant: invades and metastasises.
- Q18 — Awareness, counselling, parental care and a healthy lifestyle.

Q19 — (a) Physical, physiological, cellular and cytokine barriers. (b) A weakened antigen produces antibodies and memory cells.

Q20 — (a) HIV → reverse transcriptase → DNA → integration → helper T-cell destruction. (b) Biopsy/CT/MRI; surgery, radiation and chemotherapy.