YEAR 7 · SCIENCE

Mock Examination

Time: **1 hour** Total: **50 marks** Sections: **A to D**

Name: Date:

Instructions

- Answer all questions.
- Write your answers in the spaces provided.
- The marks for each question are shown in bold, like **[3]**.
- Show your working in any calculation.

Section A · Working Scientifically — 10 marks

1. A pupil tests how the mass hung on a spring changes how far it stretches. Name the independent variable, the dependent variable, and one control variable. **[3]**

2. Explain why a fair test should change only one variable at a time. **[2]**

3. For one mass, the spring readings were 4.0 cm, 4.2 cm and 7.0 cm. (a) Which is the anomaly? (b) Work out the mean of the two sensible readings. **[3]**

4. (a) Which type of graph suits results where the numbers change smoothly? (b) Name one thing you must always do to the axes. [2]

Section B · Biology — 14 marks

5. Name the part of a cell that (a) controls the cell (b) releases energy. [2]

6. Name two parts found in a plant cell but not an animal cell. [2]

7. What is diffusion? Give one example from the body. [2]

8. Put these in order from smallest to largest: organ, cell, tissue, organism, organ system. [2]

9. In human reproduction: (a) where does fertilisation happen? (b) where does the baby grow? [2]

10. Explain why a red blood cell is well suited to carrying oxygen. **[4]**

Section C · Chemistry — 13 marks

11. Describe the arrangement and movement of particles in a solid. [2]

12. Name the change of state: (a) liquid to gas (b) gas to liquid. [2]

13. (a) What is an element? (b) What is a compound? [2]

14. Sort these into elements and compounds: oxygen, water, gold, carbon dioxide. [2]

15. Give two signs that a chemical reaction has happened. [2]

16. Explain why melting ice is not a chemical reaction. [3]

Section D · Physics — 13 marks

17. (a) What unit are forces measured in? (b) Name two forces. [3]

18. A car travels at a steady speed. Explain what this tells you about the forces acting on it. [2]

19. Explain the difference between mass and weight. [2]

20. Why can sound not travel through space? [2]

21. Explain the difference between a loud sound and a high pitched sound. Use the words amplitude and frequency. [2]

22. Explain how you are able to see a book, which does not make its own light. [2]

End of paper