GRADE 7 INTEGRATED SCIENCE

MARKING SCHEME & TEACHER'S GUIDE

2026 | 50 MARKS | 1 HOUR 40 MINUTES

MARK DISTRIBUTION

Section	Questions	Marks
A	1–20	20
B	21–30	30
TOTAL		50

SECTION A: MULTIPLE CHOICE ANSWER KEY

Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	B	2	C	3	C	4	A
5	B	6	A	7	B	8	A
9	B	10	A	11	B	12	C
13	B	14	D	15	C	16	A
17	A	18	A	19	A	20	A

SECTION A: PEDAGOGICAL JUSTIFICATIONS

1. B — A graduated pipette is designed for measuring a specified volume of liquid accurately.
2. C — The skull-and-crossbones symbol indicates a poisonous/toxic substance.
3. C — Distilled water is neutral and does not change blue litmus to red.
4. A — A thermometer measures temperature.
5. B — Density = mass ÷ volume = 180 g ÷ 60 cm^3 = 3 g/cm^3.
6. A — Running water is the immediate first-aid response for acid on skin.
7. B — Breast development is a puberty change specific to girls among the listed options.
8. A — Filtration removes insoluble soil particles from muddy water.
9. B — pH below 7 is acidic, pH 7 is neutral and pH above 7 is basic.
10. A — Wire gauze supports the container and distributes heat from the flame.
11. B — A ureter carries urine from a kidney to the urinary bladder.
12. C — Excessive alcohol intake can contribute to kidney problems.
13. B — Opening the air hole allows more air to mix with gas and gives a hotter flame.
14. D — The heart is not an excretory organ.
15. C — Oil and water form separate layers and therefore a heterogeneous mixture.
16. A — Grouping by observable similarities is observation and classification.
17. A — The air hole/collar allows air to enter and mix with gas.
18. A — Sweat leaves the body through sweat pores.
19. A — Solar energy is a natural source of electrical energy.
20. A — The fine adjustment knob is used for sharp, clear focusing after coarse focus.

SECTION B: STRUCTURED MARKING SCHEME

21(a) — 1 mark G = testis. *Accept 'testicle'.*

21(b) — 2 marks Any two functions of the penis: deposits semen/sperm into the female reproductive tract; passes urine out of the body. 1 mark each. *Accept equivalent scientifically correct wording.*

22(a)(i) — 1 mark Any one physical property of acids: sour taste; corrosive nature; turn blue litmus red; pH below 7. *Do not require tasting in a laboratory; accept only as a stated property.*

22(a)(ii) — 1 mark Any one: bitter taste; soapy/slippery feel; turn red litmus blue; pH above 7.

22(b)(i) — 1 mark Any one valid everyday use of an acid, e.g. vinegar/citric acid in food preparation or preservation; car battery acid in batteries.

22(b)(ii) — 1 mark Any one valid use of a base, e.g. soap making/cleaning; neutralising acidity in selected applications.

23(a) — 1 mark Separating funnel. *Accept decantation only if the learner clearly describes careful separation of the two layers; preferred answer is separating funnel.*

23(b) — 1 mark Solution / homogeneous solution.

24(a) — 1 mark Series circuit. *The bulbs are connected in one continuous path.*

24(b) — 2 marks Any two electrical appliances, 1 mark each: television, refrigerator, iron, cooker, kettle, radio, fan, blender, etc.

25 — 3 marks Any three valid reasons: removes metabolic wastes; prevents harmful accumulation of wastes; helps maintain internal balance; supports normal functioning of body organs; helps prevent some excretory-system disorders. 1 mark each.

26 — 2 marks Any two relevant careers, 1 mark each: laboratory technician, science teacher, environmental scientist, medical laboratory technologist, research scientist, science-related engineer, etc.

27(a) — 1 mark Fertilization is the fusion of a male gamete and a female gamete to form a zygote.

27(b) — 1 mark Oviduct / fallopian tube.

27(c) — 1 mark Ovaries produce ova (eggs) and female reproductive hormones. Either valid function earns the mark.

28(a)(i) — 1 mark Epidermis.

28(a)(ii) — 1 mark Dermis.

28(a)(iii) — 1 mark Sweat pore.

28(b) — 1 mark Sweat, mainly containing water and dissolved salts/urea.

29(i) — 1 mark The original hibiscus indicator colour before testing was purple. *The source data only require inference from the indicator behaviour; accept 'purple' as the expected indicator colour.*

29(ii) — 3 marks Lime juice — acid (1); soap solution — base (1); distilled water — neutral (1).

30 — 2 marks X = lens/glass lens; Y = handle. 1 mark each. *Accept 'magnifying lens' for X.*

VISUAL-ITEM CENSUS AND PARITY

Six assessment questions in the source depend on visual stimuli: Question 2 (poison hazard symbol), Question 10 (heating apparatus), Question 17 (Bunsen burner), Question 21 (male reproductive system), Question 24 (simple electrical circuit), and Question 30 (magnifying apparatus). The parallel paper therefore contains six corresponding visual items and includes detailed image-generation prompts for each.

SOURCE STRUCTURE

The supplied seven-page source is Grade 7 Integrated Science, 2026, with a 1 hour 40 minute duration. Section A contains 20 multiple-choice questions worth 20 marks. Section B contains questions 21–30 worth 30 marks, with the source score grid allocating 3, 4, 2, 3, 3, 2, 3, 4, 4 and 2 marks respectively. The parallel assessment retains this structure and mark distribution while changing the question contexts and targets.

TEACHER ADMINISTRATION NOTES

• Section A: learners answer Questions 1–20 on the separate answer sheet.

• Section B: learners answer Questions 21–30 in the question paper.

• Each multiple-choice question carries 1 mark.

• Structured questions should be marked point-by-point according to the allocations above.

• Accept equivalent scientifically correct terminology where it does not alter the intended concept.

• Do not award marks for contradictory or scientifically incorrect statements merely because a correct word appears in the response.

Important note on Question 29: The source records colour changes for an indicator but does not explicitly state its starting colour in the visible table. The marking scheme uses purple as the expected starting colour based on the standard hibiscus-indicator convention; this is an inference rather than a fact explicitly stated in the uploaded source.