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SUMMATIVE ASSESSMENT – TERM II, 2026–27

BASIC SCIENCE – ANSWER KEY (English Medium)

SET 2

Standard: VIII **Time: 2 Hours**

Total Score: 60

Scores for each part are shown in brackets. Accept any other correct answer.

PHYSICS

Q. No.	Answer / Scoring indicators	Score
1	force ÷ area	1
2	b) Both true, but the reason does not explain the statement.	1
3	a) The level is the same in all the vessels (1) b) Liquid pressure at the same depth is the same; it does not depend on the shape of the vessel (1)	2
4 A	a) The comb gets charged by rubbing and attracts the uncharged paper bits (1) b) Moisture in the air lets the charge leak away (1)	2
4 B	Connecting the metal body of an appliance to the earth with a wire (1); to pass leaking current or charge safely to the earth and prevent shock (1)	2
5 A	a) The needle deflects (1) b) A current-carrying wire produces a magnetic field around it (1)	2
5 B	Electric bell, cranes for lifting scrap iron, maglev trains, loudspeakers, MRI machines (any two) (2)	2
6	a) 500 ÷ 0.0005 = 1 000 000 Pa (1) b) 40 000 ÷ 0.4 = 100 000 Pa (1) c) The woman, because her pressure is ten times greater (1)	3
7	a) 180 ÷ 3 = 60 km/h (1) b) 60 × 5/18 ≈ 16.7 m/s (1) c) 300 ÷ 60 = 5 hours (1)	3
8 A	a) Positive and negative (1) b) They repel; like charges repel (1) c) Lightning tends to strike the tallest object, and a person in an open field may be that object (1)	3
8 B	a) 76 cm (1) b) Water is much lighter, so the column would be about 10.3 m tall (1) c) The pressure of fluids inside our body balances it (1)	3
9	a) Keepers help retain their magnetism (1) b) A small area gives greater pressure, so nails go in easily (1) c) Copper is a good conductor of electricity (1)	3

CHEMISTRY

Q. No.	Answer / Scoring indicators	Score
1	Phosphorus	1
2	A) i – b, ii – c, iii – a	1
3	Metal oxides are basic, e.g. magnesium oxide (1); non-metal oxides are acidic, e.g. carbon dioxide / sulphur dioxide (1)	2
4 A	Light, strong (as alloys), does not corrode easily (any two) (2)	2

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4 B	a) A mixture of a metal with other metals or non-metals (1) b) Copper and zinc (1)	2
5	a) Basic (alkaline) (1) b) Red cabbage juice / hibiscus / beetroot (1)	2
6	a) Neutralisation (1) b) Sodium chloride (1)	2
7	a) By boiling (1) b) Washing soda (sodium carbonate) (1)	2
8 A	Loading (adding alum) → sedimentation → filtration → chlorination (2)	2
8 B	a) $Ca(OH)_2$ (1) b) Na_2CO_3 (1)	2
9	a) A brown coating of copper forms on the nail; the blue solution turns pale green (1) b) $Fe + CuSO_4 \rightarrow FeSO_4 + Cu$ (1) c) Iron is more reactive than copper (1)	3
10 A	a) Below about 5.5 (1) b) To neutralise the acid formed in the mouth (1) c) Lime (calcium oxide / calcium hydroxide) (1)	3
10 B	a) Oxygen – breathing, medical use, burning fuels (1) b) Nitrogen – making fertilisers / ammonia, preserving food (1) c) Chlorine – purifying water, making bleaching powder (1)	3

BIOLOGY

Q. No.	**Answer / Scoring indicators**	**Score**
1	Mitochondrion	1
2	i and iii are correct	1
3	a) A – cell membrane; B – nucleus (1) b) C (mitochondrion) releases energy from food (1)	2
4	They have no chlorophyll and cannot make their own food; they absorb food from dead and decaying matter (2)	2
5	They are made of more than one type of cell, working together to perform a function (2)	2
6 A	Ringworm, athlete's foot, dandruff (any two) (2)	2
6 B	Making bread and idli/appam batter rise; making alcohol; source of vitamins (any two) (2)	2
7 A	Fertilisers made of very fine (nano-sized) particles (1); a small quantity is enough, less wastage and pollution (1)	2
7 B	Compost is made from decomposed organic waste, adds humus and improves soil texture, does not pollute; chemical fertilisers supply specific nutrients quickly but can harm the soil on long use (2)	2
8	Monera, Protista, Fungi, Plantae, Animalia (any four) (2)	2
9	a) Homo (1) b) sapiens (1) c) They can interbreed and produce fertile offspring and share the same basic features (1)	3
10 A	a) Tips of roots and shoots (1) b) At the base of leaves or nodes (e.g. in grasses) (1) c) Cells divide actively; thin walls, dense cytoplasm, large nucleus, no vacuoles (any one) (1)	3

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10 B	a) Protection / covering of organs (1) b) Movement (1) c) Carries messages (impulses) (1)	3

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