ANSWER KEY

SCHOOL : NAN HUA PRIMARY SCHOOL

LEVEL : PRIMARY 6

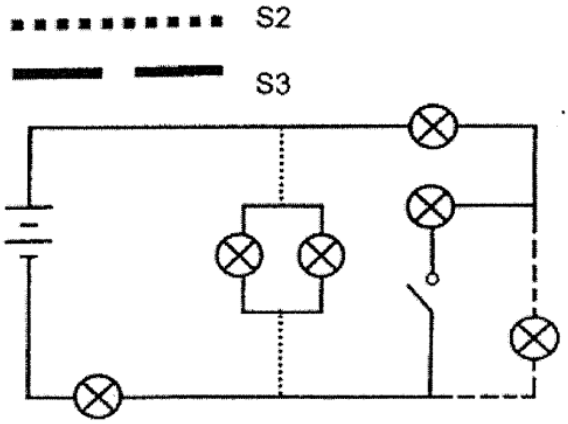
SUBJECT : SCIENCE

TERM : 2021 PRELIM

Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**
3	4	3	3	2	3	1	1	2	2
Q11	**Q12**	**Q13**	**Q14**	**Q15**	**Q16**	**Q17**	**Q18**	**Q19**	**Q20**
3	3	2	4	3	2	4	3	2	2
Q21	**Q22**	**Q23**	**Q24**	**Q25**	**Q26**	**Q27**	**Q28**		
2	2	1	1	1	2	4	3		

Qn	Answer
29a	They are grouped based on their **reproduction method/ how they reproduce/ method of reproduction**
29b	Plants in group A **reproduce by seeds** but plants in group B **reproduce by spores** OR Plants in group A are **flowering plants** but plants in group B are **non-flowering plants.**
30a	Bees **transfer pollen** (grains) from the **male part/anther of flower** to the **female part/stigma of flower**
30b	(i) The fibrous husk **trap/contain air** (spaces), which helps it to **float on water/** be buoyant/ not to sink/ be dispersed by water. (ii) to **reduce competition** for **space/(sun)light/ water/ nutrients/** mineral salts
31a	System 1 : Muscular system System 2: Skeletal system
31b	Oxygen and digested food is transported through the **blood vessels/ blood** in the circulatory system to the muscle cells/all parts of body, which gives the cells the energy to lift the bag of books.
32a	the amount of roots / the size of the leaves
32b	Graph E
32c	1000-600-100 = 300cm^3 OR Take the difference between the amount of water left in setup C with the amount of water left in setup B.
32d	To act as a control to compare and confirm that any change in the volume of water lost in beaker A and C is due to the plant absorbing the water / number of leaves on the plants and not any other variables.
33a	The amount of oxygen decreases over the 30 minutes as the family will need to take in oxygen for respiration/life process/survive to occur and energy is released for the actions to occur.

33b	**More oxygen** will be taken into the body to **release more energy / respire more** for jumping and kicking the door.
34a	Concept of requirement: Chlorophyll / chloroplast, water, carbon dioxide, light Concept of product: Food, (oxygen)
34b	David observed more bubbles in set-up A than B
34c	1) remove substance Q 2) put set up A in a dark room / cover with black plastic bag
35a	Stone : Solid and Air : gaseous/gas states
35b	Above 150 cm^3 | ✓
35c	There is some (air) **spaces between the stones** (E) in the container. As air is a matter and **occupy space**(C) the volume of the container is more than 150 cm^3. (L)
35d	4, 2, 1, 3
36a	Water from the seawater **gains heat from the Sun** and **evaporates to form water vapour.** The **water vapour loses heat to the colder surface of the glass cover** and **condensed into water droplets**. The water droplets, which is the pure water, is then collected in the container.
36b	The temperature of the surroundings is the highest/greatest/most amount of heat at 12pm, resulting in the highest/fastest rate of evaporation.
37a	Into beaker B.
37b	28°C/ Room temperature
37c	The water in beaker A **gains heat from the surroundings [1/2] until it reaches 28°C/ the room temperature [1/2].**
37d	By adding cold water/ ice.

38a	At point A: **Gravitational potential** At point B: **Kinetic** At point C: **Gravitational potential + Kinetic**
38b	The layer of oil will **reduce the friction between the wheels of the skateboard/skateboard and the ramp**. OR **More kinetic energy can be converted to more gravitational potential energy.**
38c	Evidence: **The end of the ramp is higher than where he started from.** Reason: Hence the **amount of gravitational potential energy which is converted into kinetic energy is not enough** for him to go higher than his starting height.
39a	
39b	The bulbs would be **dimmer**. The bulbs were **arranged in series** and hence **electric current passing through** the bulbs was reduced.
40a	Liquids have no definite shape/ take the shape of their containers/have definite volume.
40b	Can of Design B has a **larger surface area / exposed surface area in contact with the cold surroundings**. Hence the **milk** in the can **lose heat faster / lose more heat** [to the surroundings].
41a	Magnetic force and friction
41b	Iron bar C has the greatest magnetic strength. It was given the **greatest number of strokes** and it attracted the steel paper clip **at the furthest distance**.
41c	The force changes the shape of the object.

41d	Place the **North / South pole** of a magnet on all the (four) ends of the broken pieces of the iron bar A. If there is **repulsion from (two) the ends** of the broken pieces of iron bar A, it means that it is still a temporary magnet. OR Bring the broken pieces of iron bar near a tray of iron pins [1m]. If the bar near a tray of iron pins are attracted, the iron bars are still temporary magnet [1m].