

Part 1

Questions 1 to 8 are based on the given stimuli.

Study the information carefully and choose the best answer A, B or C. For each question, mark your answer A, B or C on the answer sheet.

Ferns in the Environment

The hardy fern has a root system that branches out and adds moisture to the soil, which helps prevent soil erosion and aids stabilisation. They are great indicators of soil, air and water quality. Their fronds are sensitive to pollutants. Studies have revealed that ferns help remove heavy metals from soil.

Nadia Abdullah was invited by the Chengdu Giant Panda Breeding Project head to spend a day looking after the pandas in their state-of-the-art panda sanctuary. Nadia said, "I saw Mei Yuan and the other keepers feeding the cubs with bottled milk. It was incredible. The moment Mei Yuan shouted, the cubs knew it was feeding time." Nadia was able to feed one of the cubs under the expert guidance of the keeper. Nadia also learnt how to feed apple using a piece of string attached to a long bamboo pole. It was an unforgettable experience for young Nadia who was chosen by the Malaysian government to go on the trip.

The Pacific Northwest Tree Octopus is a fake animal created in 1998 by Lyle Zapato. Zapato's website says the tree octopus is real, and that it lives on both land and water. Zapato created this website about the fake tree octopus to show how important it is to think carefully about whether things on the Internet are true.

The original website that described the fake species is commonly used as an example in internet literacy classes to teach students to check more carefully if sources of information are reliable.

The text included other hoax species and organisations, mixed with links to pages about real species and organisations. Despite the falsehoods shown on the site, all 25 seventh-grade students involved in one well-publicised test believed the content. All but one of the 25 rated the site as 'very credible'.

1 Which of the following statements is true?

- A Growth of ferns results in soil erosion.
- B Ferns improve the soil quality in an area.
- C Ferns aid in the growth of other plants.

2 What was Nadia impressed by?

- A The facilities for the pandas provided by the project.
- B The amount of food consumed by the pandas.
- C The way in which the staff looked after the pandas.

3 Which of the following can be concluded from the extract?

- A The website encourages youths to be critical of online information.
- B All the seventh-grade students considered the news to be believable.
- C Zapato came up with the website to create confusion among teenagers.

An orangutan named Karen, the first in the world to have open-heart surgery in 1994, has made medical history again: She's among the first great apes to get a Covid-19 vaccine.

In February, Karen, three other orangutans, and five bonobos at the San Diego Zoo received two doses each of an experimental vaccine for animals developed by a veterinary pharmaceutical company, says Nadine Lamberski, chief conservation and wildlife health officer at the San Diego Zoo Wildlife Alliance.

In January, a troop of eight gorillas at the San Diego Zoo Safari Park became the first great apes in the world to test positive for the novel coronavirus. The silverback, 49-year-old Winston, fell ill with heart disease and pneumonia, but following experimental antibody treatment, he is recovering, as are the others.

Globally, infections have also been confirmed in tigers, lions, mink, snow leopards, cougars, a ferret, dogs and domestic cats, but the fact that great apes are susceptible to the virus has scientists especially concerned.

4 Which of the following statements is **true**?

- A The silverback was the only animal that got better after treatment.
- B The Covid-19 virus caused Karen to go through an open-heart surgery.
- C The scientists are worried about the number of apes that contract the virus easily.

Diversity activities teach young children to respect and celebrate the differences in all people. Learning about different cultural aspects offers new experiences for children. When do children notice differences between people? At about two years of age, children begin to notice gender and racial differences. At 2½ or so, children learn gender labels (boy/girl) and the name of colours – which they begin to apply to skin colour. Around three years of age, children notice physical disabilities. At about four to five years, they start to display gender appropriate behaviour and become fearful of differences.

5 Which of the following statements is **true**?

- A Children cannot notice gender differences before the age of two.
- B Young children are basically not afraid of differences among themselves.
- C Diversity activities help young children to be more careful of their surroundings.



6 Which of the following statements is **true** about Dog?

- A Dog prefers to be slim.
- B Dog does not want to have breakfast.
- C Dog would like to eat more and be happy.



Can the Covid-19 virus spread through pools, hot tubs or spas, and water playgrounds?

There is no evidence that Covid-19 can be spread to humans through the use of pools, hot tubs or spas or water playgrounds.

Tips for healthy swimming

1. Check out the latest inspection score assigned to a public pool or hot tub/spa.
2. Shower before you get in the water. Rinsing off in the shower for just one minute helps get rid of most dirt or anything else on your body.
3. Keep pee, poop, blood and dirt out of the water.
4. Don't swim or let children swim when sick with diarrhoea.
5. Don't swallow the water. Just one mouthful of water with diarrhoea germs can make you sick for up to three weeks.

- 7 Which of the following statement is **true** about the poster?
- A Swimming helps the young and the old to be free from the virus.
 - B Swallowing pool water with germs is one way the virus spreads.
 - C One should shower before entering the pool to remove dirt.

Stem cells have gained popularity not only among scientists, but also among the public in recent years. In Malaysia, there is also an increasing trend of stem cell clinics being set up by local and international companies. Stem cell therapies are capable of restoring organ functions via regeneration and functional repair of damaged tissues. The only approved stem cell therapies by the Ministry of Health (MOH) currently are the bone marrow and peripheral blood stem cell transplantation for the treatment of haematological disorders such as leukaemia and thalassemia. The application of stem cells for other indications is still in the research stage.

(<https://www.ukan.my/unbi/news/20170125-current-status-stem-cell-therapy-promise-danger/>)

- 8 Which of the following statement is **not** true about stem cell therapies?
- A Most of the therapies are available in stem cell clinics all over Malaysia.
 - B Stem cell clinics are mushrooming in Malaysia as they have gained popularity.
 - C Stem cell therapies are mainly used to regenerate and repair tissues which are damaged.