



(Trimester 3) (2023-2024)
Grade (8) **Science**

Final Revision (MCQs)

Online (Swift)

Question 1: In the following figure, picture A was taken using a film camera and picture B was taken using a digital camera. Which of the following statements is **correct**?



- a. In picture B, only primary pixels (color value) are presented.
- b. In picture B, high sampling rate for each pixel taken by the camera.
- c. In picture A, the available information is enough to produce a clear image.
- d. In picture A, using electrical signals (on or off) instead of dominos (0s and 1s)

Question 2: Computers use a series of _____ to encode information.

- a. Electrical currents
- b. Binary numbers
- c. Light pulses
- d. Analog signals

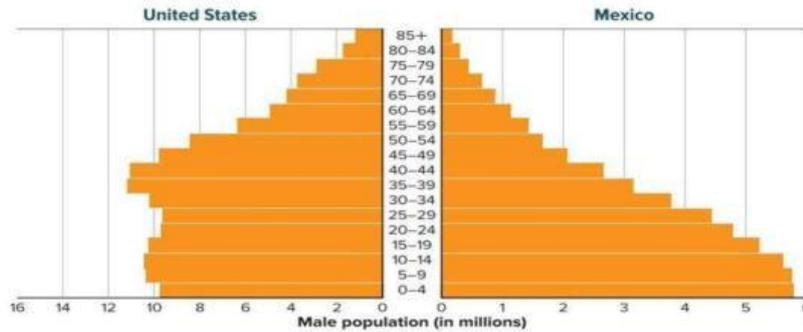
Question 3: Which best describes binary numbers?

- a. a continuously changing wave
- b. a set of two discrete values
- c. a large array of values
- d. a set of four or five numbers

Question 4: How does digital equipment use binary systems to encode information?

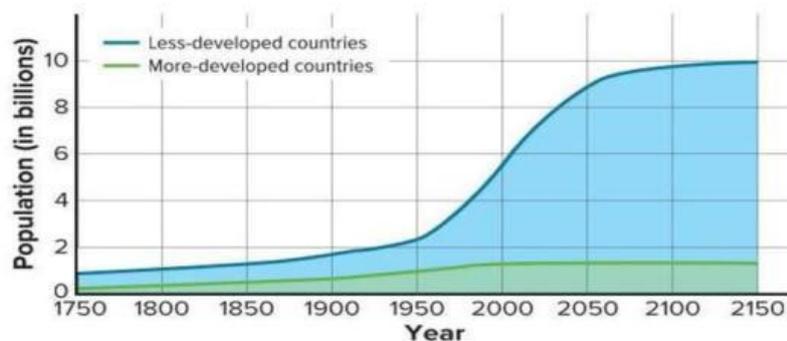
- a. It uses continuous waveforms to represent varying levels of information.
- b. It uses a series of decimal numbers to store and process data.
- c. It uses binary systems, representing information with two states (0 and 1), such as in computer memory and data storage.
- d. Digital equipment uses trinary systems, representing information with three states (0, 1, and 2), for higher efficiency.

Question 5: What can be concluded from the data displayed on the age structure diagrams below?



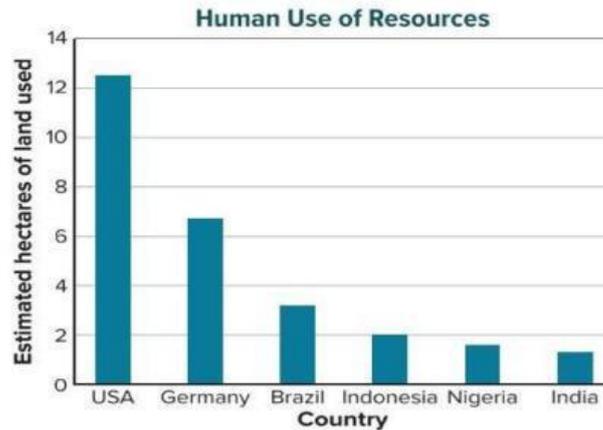
- The male population of Mexico is growing at slower rate than the United States because fewer children are being born in Mexico.
- The male population of Mexico is growing at faster rate than the United States because the number of children in Mexico exceeds the other age groups.
- The male population of Mexico is growing at slower rate than the United States because there are fewer elderly males.
- The male population of Mexico is growing at faster rate than the United States because there is a greater number of elderly males .

Question 6: Which of the following statements correctly describes the population structure and growth trends in developing and developed countries shown below?



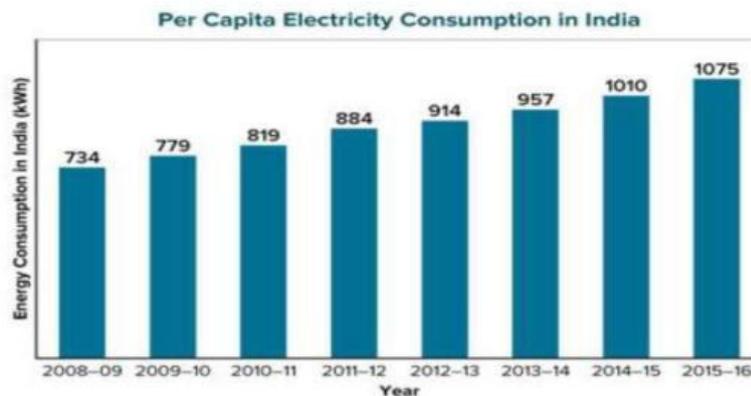
- In developing countries, the population is growing slowly, with the number of individuals in the pre-reproductive and reproductive stages slightly exceeding those in the post-reproductive stage.
- In developing countries, the population is growing rapidly, with the number of individuals in the pre-reproductive and reproductive stages greatly exceeding those in the post-reproductive stage.
- In developed countries, the population is growing rapidly, with the pre-reproductive and reproductive stages significantly larger than the post-reproductive stage.
- In both developing and developed countries, the population growth is rapid.

Question 7: Why is it important to maintain the population below the carrying capacity?



- If India become more industrialized more land will be available for individuals
- If the human population grows beyond Earth's carrying capacity, Earth will not have enough resources to support humans.
- Resources become easier to extract and find.
- Natural resources become abundant, and the population will increase.

Question 8: The graph shows the change in Per Capita electricity usage in India from 2008-2016. What claim can be made about population in India?



- The increase in electricity use indicates that the population size of India has increased over time.
- The number of people who use electricity has decreased over time; population decreased.
- The overall usage of electricity has stayed the same because of the limited number of resources in the country.
- The overall usage of electricity has decreased of reliability of alternative energies resources.

Question 9: Calculate the population growth rate for United States and Germany respectively.

Country	Population 2015 (millions)	Birth rate	Death Rate	Net Migration Rate
*United States	321.2	13	8	3

- a. 1.3 %
- b. 2.5 %
- c. 0.8 %
- d. 0.2 %

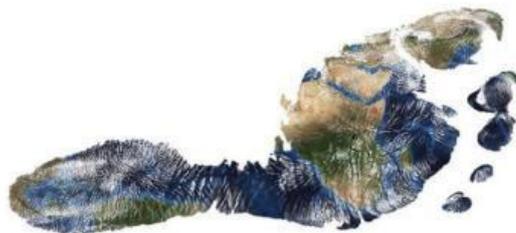
Question 10: Deforestation can lead to _____.

- a. loss of animal habitats
- b. soil erosion
- c. increases in Earth's average surface temperature. (climate change)
- d. all of the above

Question 11: Reduced vegetation on Earth results in _____.

- a. more carbon dioxide in the atmosphere
- b. increased habitats
- c. less room for humans
- d. more oxygen in the atmosphere

Question 12: What does the ecological footprint measure?



- a. The number of species that are endangered due to human activities.
- b. The amount of land and water area required to produce the resources consumed and to assimilate the wastes generated by humans.
- c. The total amount of carbon dioxide emissions produced by human activities.
- d. The population growth rate in different regions of the world.

Question 13: Of the following, which helps conserve natural resources and minimize ecological footprint?

- a. using a cloth shopping bag instead of a paper bag.
- b. riding your bike on short trips around town.
- c. planting trees in your front yard.
- d. all of the above.

Question 14: What is one way people can help protect the environment?

- a. Recycling
- b. cutting down trees
- c. mining
- d. littering

Question 15: What effect does recycling have on land resources?

- a. Recycling conserves land resources.
- b. Recycling uses land resources more quickly.
- c. Recycling has no effect on land resources.
- d. Recycling only affects water resources.

Question 16: How can using renewable energy technology affect our ecological footprint?

- a. It increases the amount of land and water needed to produce resources.
- b. It has no significant impact on the ecological footprint.
- c. It greatly reduces the ecological footprint by decreasing the need for fossil fuels and reducing waste.
- d. It increases carbon dioxide emissions, contributing to a larger ecological footprint.

Question 17: The yearly orbit of Earth around the Sun is called its _____.

- a. Rotation
- b. ellipse
- c. revolution
- d. tilt



Question 18: The line on which an object rotates is defined as _____.

- a. revolution axis.
- b. rotation axis.
- c. tilt axis.
- d. spin axis.

