

### Passage 3

In terrestrial affairs we think of "big" as being complicated; a city is more intricate than a village, an ocean more complicated than a puddle. For the universe, the reverse seems to be the case bigger is simpler Galaxies have some puzzling features, but on the whole, they are scarcely more complicated than the stars that compose them Beyond the galaxies, in the hierarchy of the cosmos, there are clusters of galaxies; these clusters are loosely bound by the gravity of their largest members and tend to look very much the same in all directions. Simplest of all is the universe at large, it is far less complicated than the Earth, one of its most trivial members. The universe consists of billions of galaxies flying apart as if from an explosion that set it in motion, it is not lopsided, nor does it rotate. The more thoroughly scientists investigate the universe, the more clearly its simplicity shines through.

1. What is the main point made in the passage?  
(A) The Earth is more complicated than the solar system  
(B) The universe is filled with puzzling materials.  
(C) The universe is a relatively simple phenomenon.  
(D) Galaxy clusters are an illusion.
2. According to the passage, clusters of galaxies are  
(A) indiscernible in the cosmos  
(B) held together by gravity  
(C) made up of only one or two galaxies  
(D) created when stars explode
3. According to the passage, which of the following is the most complicated?  
(A) The Earth  
(B) A cluster of galaxies  
(C) The universe  
(D) A galaxy
4. It can be inferred from the passage that future research will support which of the following statements?  
(A) Scientists in the past have been misled by the apparent simplicity of the universe.  
(B) The chaos and confusion of the universe will never be understood  
(C) Findings will confirm the belief that the universe is simple  
(D) Billions of galaxies are predicted to explode, adding to universal complexity.

### Passage 4

Arid regions in the southwestern United States have become increasingly inviting playgrounds for the growing number of recreation seekers who own vehicles such as motorcycles or powered trail bikes and indulge in hill-climbing contests or in carving new trails in the desert. But recent scientific studies show that these off-road vehicles can cause damage to desert landscapes that has long-range effects on the area's water-conserving characteristics and on the entire ecology, both plant and animal. Research by scientists in the western Mojave Desert in California revealed that the compaction of the sandy arid soil resulting from the passage of just one motorcycle markedly reduced the infiltration ability of the soil and created a stream of rain runoff water that eroded the hillside surface. In addition, the researchers discovered that the soil compaction caused by the off-road vehicles often killed native plant species and resulted in the invasion of different plant species within a few years. The native perennial species required many more years before they showed signs of returning. The scientists calculated that roughly a century would be required for the infiltration capacity of the Mojave soil to be restored after being compacted by vehicles.

1. What is the main topic of the passage?
  - (A) Problems caused by recreational vehicles
  - (B) Types of off-road vehicles
  - (C) Plants of the southwestern desert
  - (D) The increasing number of recreation seekers
  
2. According to the passage, what is being damaged?
  - (A) Motorcycles
  - (B) The desert landscape
  - (C) Roads through the desert
  - (D) New plant species
  
3. According to the passage, the damage to plants is
  - (A) unnoticeable
  - (B) superficial
  - (C) long-lasting
  - (D) irreparable
  
4. According to the passage, what happens when the soil is compacted?
  - (A) Little water seeps through
  - (B) Better roads are made
  - (C) Water is conserved
  - (D) Deserts are expanded
  
5. What is happening to the desert hillsides?
  - (A) The topsoil is being eroded
  - (B) The surface is being irrigated
  - (C) There are fewer types of plants growing on them
  - (D) There are fewer streams running through them
  
6. According to the passage, what is happening to native plants in these areas?
  - (A) They are becoming more compact
  - (B) They are adapting
  - (C) They are invading other areas
  - (D) They are dying
  
7. It can be inferred that which of the following people would probably be most alarmed by the scientists' findings?
  - (A) Historians
  - (B) Mapmakers
  - (C) Farmer
  - (D) Ecologists