**Barrons AP Env. Science 2015 answers**

**1. (A)** The Bureau of Land Management (BLM) is an agency within the us. Department of the Interior, which administers America’s public lands, totaling one-eighth of the landmass of the United States. The BLM also manages mineral rights underlying federal, state, and private lands. Most public lands are located in western states. including Alaska.The BLM’s stated mission is to sustain the. health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations

**2. (B)** First enacted by Congress in 1975, the purpose of CAFE (Corporate Average Fuel Economy) is to reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Trafﬁc Safety Administration (NHTSA) administers the CAFE program and sets fuel economy standards for cars and light trucks sold in the United States, while the Environmental Protection Agency (EPA) provides the fuel economy data and calculates the average fuel economy for each manufacturer.

**3. (A)**  National Ambient Air Quality Standards (NAAQS) are standards established by the U.S. Environmental Protection Agency (EPA) under authority of the Clean Air Act that apply for outdoor air throughout the country. Primary standards are designed to protect human health, with an adequate margin of safety, including sensitive populations such as children, the elderly, and individuals suffering from respiratory diseases. Secondary standards are designed to protect the public welfare from any known or anticipated adverse effects of a pollutant.

**4. (E)**  Noise pollution in the workplace is regulated and enforced by OSHA (Occupational Safety and Health Administration) a branch of the US. Department of Labor. A difference of 20 decibels corresponds to an increase of 10 X 10 or 100 times in iintensity. Reef ﬁsh, whales, dolphins, and other marine species rely on sounds to communicate; Under the Clean Air Act, the EPA established the Ofﬁce of Noise Abatement and Control (ONAC) to carry out investigations and studies on noise and its effect on the public health and welfare. Through ONAC, the EPA coordinated all federal noise control activities, but in 1981 the administration concluded that noise issues were best handled at the state and local level. As a result, ONAC was closed and primary responsibility of addressing noise issues was transferred to state and local governments. However, EPA retains authority to investigate and study noise and its effect, disseminate information to the public regarding noise pollution and its adverse effects.

**5. (A)** The Clean Water Act, passed in 1972, was enacted to reduce point source pollution and addressed protecting surface water. It did not directly address groundwater contamination. The Safe Drinking Water Act, Resource Conservation and Recovery Act, and the Superfund Act did address groundwater contamination.

**6. (B)** Congress enacted the Resource Conservation and Recovery Act (RCRA) in 1976 to address the increasing problems the nation faced from its growing volume of municipal and industrial waste. RCRA amended the Solid Waste Disposal Act of 1965. It set national goals for:

* Protecting human health and the natural environment from the potential hazards of waste disposal.
* Energy conservation and natural resources.
* Reducing the amount of waste generated through source reduction and recycling.
* Setting standards for the treatment, storage, and disposal of hazardous wastes.

**7. (B)** The Montreal Protocol on Substances that Deplete the Ozone Layer is an international treaty designed to protect the ozone layer by phasing out the production of numerous substances believed to be responsible for ozone depletion. The treaty went into effect on January 1, 1989. It is widely believed that if the international agreement is adhered to, the ozone layer may be expected to recover by 2050; however, increasing anthropogenic nitrous oxide emissions may delay that goal.

**8. (D)** The Kyoto Protocol is an international treaty that commits. countries to reduce greenhouse gases emissions based on the premise that (a) global warming exists and (b) man-made CO2 emissions have caused it. The ﬁrst Kyoto Protocol consisted of 192 countries and went into effect in 2005 and expired in 2012. In the 2007, non-binding ‘Washington Declaration’, Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, the United States, Brazil, China, India, Mexico, and South Africa agreed in principle on the outline of a successor to the Kyoto Protocol. They envisaged a global cap-and-trade system that would apply to both industrialized nations and developing countries, and initially hoped that it would be in place by 2009.

In 2010, 76 developed and developing countries collectively responsible for 85% of annual global greenhouse gas emissions agreed to and pledged (Cancun Agreements) to control their emissions of greenhouse gases. However, by 2012, the USA, Japan, Russia, and Canada had indicated they would not agree to a second Kyoto commitment.

**9. (B)** CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

**10. (B)**  The United States is the only country listed to have failed to agree to the Kyoto Protocol in 1997 to reduce its greenhouse gases and its extension in 2012. In 2011, Canada withdrew from the Protocol.

**11. (D)** The Superfund program began in 1980 to locate, investigate, and clean up the most polluted sites nationwide.

**12. (D)**  The Fish and Wildlife Service, in the Department of the Interior, and the National Oceanic and Atmospheric Administration (N0AA) in the Department of Commerce, share responsibility for administration of the Endangered Species Act. An endangered species is one that is in danger of extinction throughout all or a signiﬁcant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future.

**13. (B)** CITES (the Convention on International Trade in Endangered Species) is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

**14. (A)** The Resource Conservation and Recovery Act (RCRA) of 1976 addresses comprehensive management of nonhazardous and hazardous solid waste, sets minimal standards for all waste disposal facilities and for hazardous wastes, and regulates treatment, storage, and transport.

**15. (C)** Also known as Superfund, it is a law designed to clean up sites contaminated with hazardous substances. The law authorized the Environmental Protection Agency (EPA) to identify parties responsible for contamination of sites and compel the parties to clean up the sites. Where responsible parties cannot be found, the EPA is authorized to clean up sites itself, using a special trust fund. CERCLA authorizes two kinds of response actions: (1) Removal actions. These are typically short-term response actions, where actions may be taken to address releases or threatened releases requiring prompt response and (2) Remedial actions. These are usually long-term response actions. Remedial actions seek to permanently and signiﬁcantly reduce the risks associated with releases or threats of releases of hazardous substances that are serious.

**16. (E)** (1) National Park Service (Interior Department) provides for the use and enjoyment of the parks by people and to preserve the land in its original state. It manages 13% of federal lands and 40% of the acreage within the National Wilderness Preservation System. (2) The Forest Service (Department of Agriculture) manages public lands in national forests and grasslands. It manages 30% of federal lands and 33% of the acreage within the National Wilderness Preservation System. (3) Bureau of Land Management (Interior Department) initially managed range lands for grazing, oil and gas development, and mining. Their role expanded to include multiple use resources such as wildlife, watersheds, recreation, wilderness, and other conservation values with the passage of the Federal Land Policy and Management Act in 1976. It manages 42% of federal lands and 7% of the acreage within the National Wilderness Preservation System. (4) The Fish and Wildlife Service (Interior Department) administers a national network of lands and waters for the conservation, management, and, where appropriate, restoration of the ﬁsh, wildlife, and plant resources and their habitats within the United States. It manages 15% of federal lands and 18% of the acreage within the National Wilderness Preservation System.

**17. (C)**  The Resource Conservation and Recovery Act (RCRA) gives the Environmental Protection Agency (EPA) the authority to control hazardous waste from the “cradle-to-grave” which includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also sets forth a framework for the management of nonhazardous solid wastes. The 1986 amendments to RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The Federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste.

**18. (E)**  The U.S. Fish and Wildlife Service is a bureau within the Department of the Interior. As the principal federal partner responsible for administering the Endangered Species Act (ESA), the Fish and Wildlife Service takes the lead in recovering and conserving imperiled species by fostering partnerships, employing scientiﬁc research, and developing a workforce of conservation leaders. The Environmental Protection Agency’s Endangered Species-Protection Program (ESPP) helps promote the recovery of listed species. The ESPP is a program designed to determine whether pesticide use in a certain geographic area may affect any listed species.