

EarthCARE Spring 2007 In-Service Quiz

Category – Climate Change

1. Global warming refers to
 - a. The rise in the average temperature of the entire earth's surface due to increased levels of greenhouse gases
 - b. The rise in the average temperature of the entire earth's surface as a result of holes in the ozone layer
 - c. The rise in the average temperature of the entire earth's surface caused by the "urban island effect", i.e., trapped heat in cities
 - d. The rise in the average temperature of the entire earth's surface caused by a meteor that crashed in Siberia in the early 20th century

2. The warmest winter (winter is measured from December to February) in the Northern Hemisphere since record-keeping began in 1880 was
 - a. 1998
 - b. 2005
 - c. 2006
 - d. 2007

3. Even though the World Meteorological Organization ran out of 'names', this is NOT a name of one of the 27 hurricanes or tropical storms that hit the USA in the 2005 storm season
 - a. Ophelia
 - b. Lee
 - c. Epsilon
 - d. Gamma

Category – Energy

4. How much energy is saved from making a can from recycled aluminum rather than making it from bauxite, the primary ore?
 - a. 70%
 - b. 77%
 - c. 82%
 - d. 95%

5. How much money was recovered by Hydro Ottawa from the sale of the copper of the incandescent light strings collected in the festive light exchange program?
 - a. \$1800
 - b. \$2000
 - c. \$2800
 - d. \$3500

6. Which of the following first proposed a ban on incandescent lights?
 - a. Australia
 - b. California
 - c. European Union
 - d. Britain

Category – Water

7. How much water can be saved by using a low-flow shower head instead of a standard model? As much as
 - a. 25%
 - b. 42%
 - c. 60%
 - d. 78%

8. How much water will an average-sized birch tree draw from the soil on a summer's day?
 - a. 100L
 - b. 200L
 - c. 250L
 - d. 300L

9. How much more water does the average person today use than a hundred years ago?
 - a. 3 times
 - b. 4 times
 - c. 6 times
 - d. 8 times

Category – Waste

10. How many plastic drink bottles are required to make the fibrefill for one ski jacket?
 - a. 5
 - b. 10
 - c. 20
 - d. 30

11. Which one of the following cities is not doing better than Ottawa at recycling?
 - a. Calgary
 - b. Edmonton
 - c. Halifax
 - d. Vancouver

12. How much money is lost through items sent to the City of Ottawa landfills rather than to recycling each year?
 - a. \$800,000
 - b. \$1,000,000
 - c. \$1,200,000
 - d. \$1,500,000

Answers:

1. a The rise in the average temperature of the entire earth's surface due to increased levels of greenhouse gases.

All hypotheses have been proposed. The last hypothesis (d) was proposed by a Russian scientist. The Doomsday Clock has been moved 1 minute closer to 12 – it's now at 11:55.

2. d 2007

Winter is measured from December to February. The previous warmest winter was 2006. The only places that did not have above-average temps were Saudi Arabia, Iraq, and the Central US. Another study, published in Science, suggests the North Pole could be ice-free by 2100 conservatively – perhaps even by 2040.

3. d Gamma

Major storms spinning in both the Atlantic and Pacific since the 1970s have increased in duration and intensity by about 50%.

4. b 77%

In 2004, about \$281,000 worth of empty pop cans were thrown in the garbage in Ottawa.

5. d \$3500

Hydro Ottawa returned this money to the 2 participating boards, the OCDSB and the OCCDSB. The OCDSB received \$2750 for their Breakfast programs. Only 5% of the energy used to operate incandescent lights is converted to light. Up to 90% of the energy is given off as heat.

6. b California

A US coalition between Natural Resources Defense Council and Phillips Lighting is pushing to phase out incandescent bulbs by 2016. European Union leaders are proposing an earlier date.

7. c 60%

This can save \$12 - \$24 per person per year.

8. d 300L

Planting too many trees in a temperate zone has a negligible or even negative effect on global warming. Trees consume lots of water. They are needed in large quantities in the rain forests and in moderation in our zone.

9. d 8

10. b 10

40 soft drink bottles can make the fibre to fill one sleeping bag.
1 billion pounds of plastics are landfilled each year as discarded electronics.
Plastics #1 and #2 have the strongest market for recycling.

11. a Calgary

In 2005, Ottawa residents generated 319,006 tonnes of trash. Only 33% of this was diverted from the landfill (22% via blue and black boxes; 11% in leaf & yard waste, composting, take it back, and household hazardous waste). Markham is the best recycler at 70%.
Ottawa plans to keep 60% of all waste from reaching landfills by 2008. We have less than 2 years to cut its garbage in HALF.

12. b \$1,000,000

The net cost of collection, processing and marketing recyclables in 2005 was only HALF the cost of collection and disposal of garbage (\$44/tonne vs. \$90/tonne). On average, the waste management costs are about 1.5% of our property taxes.