

Arch 464

ECS

Midterm II Take-Home Exam

Spring 2020

Six Multiple Choice Questions that require complete essay answers. Explain (1) why the chosen answer in *italic boldface* type is correct and (2) why the others are not. Be articulate and convincing! Each question is worth 5 points, if answered correctly and completely. Due Friday, Apr 3 at 10:30 a.m..

3. A *National Geographic Magazine* writer reported his family on a daily basis uses

- A. about twice as much potable water as other families studied
- B. about three times as much potable water as other families studied
- C. about four times as much potable water as other families studied
- D. *over six times as much potable water per person as other families studied*

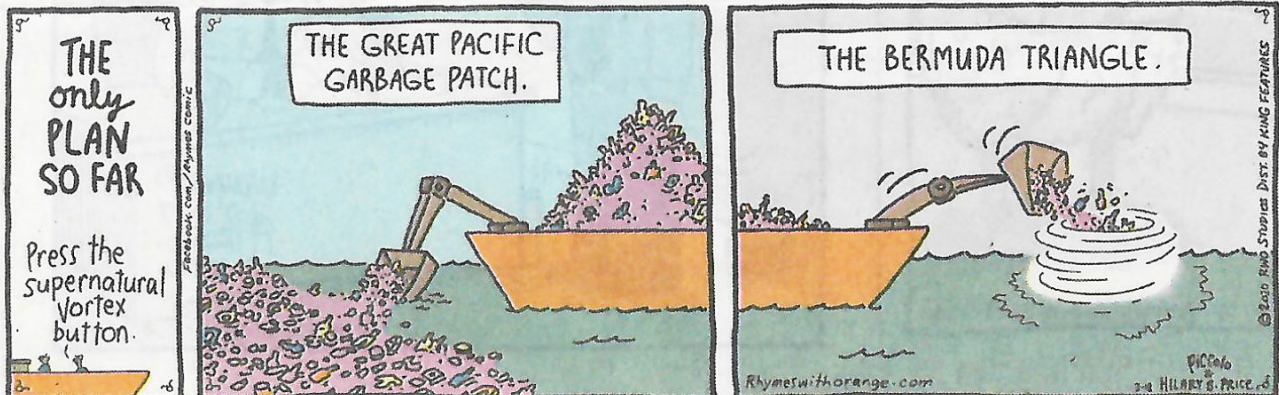
9. A common element in the stormwater strategies at Portland's Water Pollution Control Laboratory and Village Homes is

- A. a neighborhood scale retention pond
- B. *swales for capturing stormwater*
- C. constructed wetlands
- D. cisterns for each rooftop

14. Embodied carbon in architectural projects includes

- A. carbon emissions from manufacturing building components
- B. carbon sequestered in wood products
- C. carbon emissions from occupants' trips to work
- D. *all of the above*

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18. Proactive management of construction sites can

- A. divert no more than 50% of construction wastes from landfill
- B. *control stormwater run-off*
- C. earn no LEED and Living Building Challenge credits
- D. none of the above

21. The most ecologically beneficial new building is designed to

- A. be LEED Platinum
- B. meet the Living Building Challenge
- C. *be regenerative*
- D. any of the above

30. A rationale for using both micro hydro and photovoltaics for producing on-site energy is

- A. both require battery storage
- B. *PVs are most productive in summer—micro hydro in winter*
- C. PVs don't produce at night
- D. all of the above



Your turn Greta!