

Round: 9B

Answer the following questions on the impact of climate change.

1. Describe three (3) challenges that Arctic subsistence hunting communities face as ice cover decreases.

Any three (3) of the following (2 pts each, 6 pts total):

- *Increased personal risk during hunts from lack of traditional knowledge about changing ice conditions.*
- *Hunters face decreased availability of animals during the year.*
- *Hunters are forced to hunt fewer species because ice-dependent species move northwards and may be out of range.*
- *Increased competition for space, OR increased pollution with increased oil and gas exploration as new areas for exploration open up*
- *Increased shipping traffic changes the distribution of hunted species, or interferes with hunting practices.*
- *Loss of traditional hunting knowledge OR cultural continuity due to influence of global development*

2. Inuit hunters and villagers in the Canadian Arctic are observing increased numbers of what marine mammal species? Explain why the species is more commonly observed.

Polar bears OR Ursus maritimus (2 pts). Bears are more commonly encountered because decreasing ice cover prevents bears from hunting ice seals, and forces animals to seek other food sources (2 pts).

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3. Communities in remote Pacific atolls are vulnerable to the effects of climate change. Describe two (2) impacts of climate change in this region and the actions that these communities could take to prepare.

Any TWO (2) of the following (2 pts each, 4 pts total):

- *Build breakwaters or seawalls to reduce impact of potential increased hurricane occurrence.*
- *Build homes on stilts in preparation for sea level rises.*
- *Build freshwater storage in preparation for increased salt-water intrusion in groundwater.*
- *Develop emergency preparedness plans/resiliency plans*

4. Name three (3) ways in which global climate change might impact coastal tourism.

Any 3 of the following (2 pts each, 6 pts total):

- *Sea level rise leads to wetland destruction which leads to lower fishery production, affecting recreational fishing industry*
- *Coastal inundation will flood coastal recreational infrastructure, from luxury hotels to public bathing facilities*
- *Greater tropical storm/hurricane frequency and severity will make it less likely that people will go to the coast to recreate.*
- *Increased sea surface temperatures may induce coral bleaching, resulting in less attractive reefs for diving and snorkeling.*