JOURNEY TO THE END OF THE EARTH

Q1. **What emotions did the author experience on seeing the landscape of Antarctica?**

Or

Why did the author experience wonder at the sight of Antarctica?

Answer. When the author put his feet on, he felt profound wonder to see the expansive landscape, uninterrupted blue horizon and the utter isolation of the place. He imagined how about six hundred and fifty million years ago India and Antarctica were part of the same landmass called Gondwanaland.

Q2. **How has the average global temperature increased?**

Answer. In last 12,000 years, the human has brought a big environmental change with our villages, towns, cities and mega cities. The human population has increased incredibly. The industrialization, urbanization and the continuous burning of fissile fuel has created a blanket of carbon dioxide around the world. It is slowly increasing the average global temperature.

Q3. **Why is Antarctica significant to the study of Earth's past, present and future?**

Or

'Worlds Geological history is trapped in Antarctica. Explain.

Answer. The Antarctica has no human population. It has lack of bio-diversity with simple eco-system. Thus it is the best place to study earth's past, past and future. It holds in its ice cores half million year old carbon records. It shows how small changes in the climate can have bigger repercussion on environment and wild life. We can study the formation of different continents and how human activities are destroying the delicate balance of the earth econ system which have resulted as global warming and depletion of ozone layer.

Q4. **What does students on ICE program aim at?**

Answer. 'Students on ice' is the program launched by the Canadian Geoff Green. Under the program, the vessel 'Shokaskiy' takes the student to Antarctica and provides them inspiring educational opportunities. The program is aimed at fostering a new understanding and respect for our planet. The future policy makers get a life changing

experience to understand the sensitive eco system, bio-diversity and danger posed before Antarctica. They get an opportunity to understand how small changes leave a deeper repercussion in the long run.

Q5. Why does Geoff Green, under 'Students on Ice' program include only high school students and not big celebrities?

Answer. Initially, big personalities from different walks of life were taken to Antarctica but they contributed only in monetary form. Changing the strategy, now the program takes high school students to the end of the world as they are the future policy makers. They want these young boys and girl to understand the threat facing the planet and develop relation with the nature. It will certainly have a huge impact on future policies.

Q6. 'The pristine purity of Antarctica is under a grave threat from humans'. How are human beings threatening Antarctica?

Answer. Antarctica has a simple ecosystem and a lack of biodiversity so it remained 'pristine' so far. It plays a vital/significant role in the formation of the world environment and biodiversity.

But the problem like global warming has posed/become a serious threat to the continent and the world environment.

The human population has crossed 7.5 billion mark and is increasing with an alarming rate. Human activities like rapid urbanization and industrialization have left a deep impact on environment and it resources. Today we have a direct fight other creatures for limited resources. The unmitigated burning of fossil fuel has created a blanket of green houses in the upper atmosphere resulting an increase in the global average temperature and depletion of ozone layer. All this have affected the activities of Phytoplankton that supports the entire food chain of southern ocean.

Now it time that world community should come ahead and take some serious collective measures to save continent as the existence of human race is directly connected with existence of Antarctica.

Q7. Take care of the small things and big things will take care of themselves'. What is the relevance of this statement in the context of the Antarctica's environment?

Answer. It is True and relevant in context with Antarctica that if we take care of small things and big things will take care of themselves. Because Antarctica has a simple ecosystem and a lack of biodiversity, It is a perfect place to study how small changed in the environment can have/leave bigger repercussion. It plays a vital role in the formation of the world environment and biodiversity.

We can take the example of Phytoplankton- a sea grass- that nourish and sustain the entire Southern Ocean food chain. It is a single cell plant that makes its food through photosynthesis. In this process it assimilate/absorb carbon. But the human activities have affected the activities of phytoplankton. The depletion of ozone layer has left a deep impact on the activities of Phytoplankton. If this sea grass is destroyed, it will have a direct impact on the world carbon cycle and ecological balance. It will also affect the lives of marine animals and birds of the region.

There is simple message that we have to learn to live in harmony with nature. There must be a balance between development and environment protection.

Q8. Why is Antarctica the place to go to, to understand the earth's present, past and future?

Answer. Antarctica has a simple ecosystem and a lack of biodiversity so it remained 'pristine' so far. Devoid of any human settlement, it is the best place to study the present, past and future of our planet. It was the part of a big amalgamation/landmass called Gondwanaland. About Six hundred and fifty million years ago, the present day Antarctica was surrounded by a giant amalgamated Southern supercontinent called Gondwana. Thus Antarctica belongs to ancient geological era when human beings had not yet evolved; the climate was warm in the continent and supported a huge variety of flora and fauna. Later, the dinosaurs were wiped out and mammals began to evolve. At this juncture Gondwana got separated and formed the world that we have today. So to visit Antarctica is now to be a part of that history. The scientists can study the significance of cordilleran folds, Drank Passage and pre-Cambrian granite shields.

The ice-cores hold half a million year old records of carbon that help study the historical development of planet. Because Antarctica has a simple bio-diversity, scientists can study how small changes can have far- reaching repercussion on different species and world ecological system.