

## Personal Statement: Part B

### Topics of Interest

(if you have selected “**Science & Applied Science**” as your first choice in “10. Desired Area(s) of Study” in online application form)

Applicant’s full name: \_\_\_\_\_

*Complete all sections in English. Respond to all questions. Part A and Part B should be written in an essay format. Although you may consult teachers, counselors, and friends, all final writing must be your own words. If we find plagiarism, including material copied from websites, your application will not be considered any further. If you advance to the interview stage, you may be asked to answer questions or elaborate on your statement. Use 12-point font single-space (Times New Roman preferred).*

Explain any two of the following topics in one A4 sheet or within the specified frame:

- The possible results when water and ice of the same mass are mixed. Consider the specific heat of water  $4.2 \text{ J}/(\text{g}\cdot\text{K})$ , the specific heat of ice  $2.1 \text{ J}/(\text{g}\cdot\text{K})$ , and the heat of fusion of ice  $330 \text{ J}/\text{g}$ .
- Why do the artificial satellites not fall to earth?
- The relationship between carbon dioxide emissions and global warming.
- The color of light that is generated when a substance burns or becomes extremely hot.
- The process by which proteins are synthesized from DNA.

Note: Set and specify the detailed conditions necessary to explain the problem. Also, explain other phenomena that occur by the same principle.