

- 1.** The European Union (EU) and Association of Southeast Asian Nations (ASEAN) are supranational organizations composed of independent member states.

Respond to parts A, B, C, D, E, F, and G.

- A.** Define the concept of an independent state.
- B.** Describe one purpose of supranational organizations.
- C.** Describe one global outcome of an increase in international trade.
- D.** Explain how deindustrialization has affected the economy of core countries.
- E.** Explain why international boundaries on land or at sea may lead to disputes over resources.
- F.** Explain how supranational organizations such as the EU or ASEAN may challenge the sovereignty of member states.
- G.** Explain how advances in communication technologies may affect state sovereignty.

**SELECTED TECHNOLOGY RESEARCH AND DEVELOPMENT AREAS
IN THE MEDICAL FIELD**

Category	Product or Service
Biotechnology:	• Genetic engineering research • Biochemistry research • Diagnostic and testing science
Gene therapies:	• Cancer treatments • Neurological treatments • Rare and genetic disease treatments • Antiviral treatments and vaccines (e.g., Moderna)

3. Since the 1980s, the northeastern United States has developed into a major global center of high-technology industry that specializes in the medical field.
- A. Describe the spatial pattern of the companies and institutions shown in the inset map.
 - B. Describe the concept of a growth pole.
 - C. Explain ONE way education infrastructure affects a region's potential for high-technology development.
 - D. Explain how the pattern shown on the map resembles the galactic city model.
 - E. Explain ONE way local economic changes may be a result of deindustrialization.
 - F. Explain how the products and services listed in the table demonstrate that this economy has moved into the quaternary sector.
 - G. The map focuses on a regional scale. Explain a possible limitation of drawing country scale conclusions from a regional scale map.

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.

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END OF EXAM

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