

**INTELLIGENT TRANSPORTATION SYSTEMS**  
**ADVANCED TRAVELER INFORMATION SYSTEMS**

**DISCUSSION ISSUES**

Note: Be prepared to answer the following questions.

**Question 1.**

Define the terms “first- and second-generation” information systems. Identify two systems of each type and explain their role within ATMS/ATIS.

**Question 2.**

List types of route choice errors that can occur and state how traveler information systems can be used to make route choice behavior more efficient.

**Question 3.**

Describe differences between mobile-based and infrastructure-based route guidance systems. Discuss the advantages and shortcomings of each under static and real-time operation mode.

**Question 4.**

Who can benefit from the availability of Pre-trip Travel Information and why?

**Question 5.**

Provide arguments on whether or not drivers want in-vehicle information and discuss if the cost for ATIS services is justifiable.

**Question 6.**

Present emerging technologies that may have an impact on information delivery within ATIS.

**Question 7.**

List and explain important factors that should influence development and deployment of in-vehicle systems.

**Question 8.**

Discuss ways in which Traveler Information Systems have advanced in recent years.

**Question 9.**

What is the main risk behind providing en-route information to drivers and how this issue can be addressed?

**Question 10.**

Explain the how Static Traffic Assignment (STA) is performed and state the difference between STA and Dynamic Traffic Assignment.

**Research Topic**

Research the literature to learn more on technologies that can assist ATIS functions. Then fill in the attached matrix to show which types of technologies relate to the various ATIS user services listed.

Please mark the appropriate ITS technologies corresponding to ITS user services (ATIS)

Technology/ User Service	Surveillance	Data/voice Communication	Traveler Interface	Control Strategies	Navigation/ Guidance	Data Processing	In-vehicle Sensors
Traveler Info							
Travel Advisory							
Travel Service Info							
Trip Planning							
Location Display							
Route Selection							
Route Guidance							
In-Vehicle Signing							