CBCS SCHEME

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BCV714A

ACHARYA INSTITUTE OF TECHNOLOGY Library Date BANGALORE

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
Intelligent Transportation System

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Define ITS and explain various applications of ITS in transportation.	10	L1	CO1
	b.	Describe rule and responsibilities of advanced traveller information system.	10	L2	CO1
		OR			
Q.2	a.	Explain the advantages of adopting ITS over the conventional transportation system.	10	L1	CO1
	b.	Explain Fleet Oriented ITS Service.	10	L2	CO1
		Module – 2			
Q.3	a.	Explain ITS architecture with the flow chart.	10	L1	CO2
	b.	List and explain the various hardware sensors used in ITS service.	10	L2	CO2
		OR			
Q.4	a.	Discuss dynamic message sign in the context of traffic management.	10	L1	CO2
	b.	Write a note on : i) GPRS ii) GPS.	10	L2	CO2
		Module – 3			
Q.5	a.	List and explain advantages and Automatic Numbers Plate Recognition [ANPR].	10	L2	CO2
	b.	Explain importance of control center in integrated traffic management system.	10	L3	CO2
		OR			
Q.6	a.	Describe the different types of information provided by ATIS to road users.	10	L2	CO2
	b.	"The accuracy of DTA outputs depends on the integration of its core components". Discuss this statement with suitable examples.	10	L3	CO2
		Module – 4			
Q.7	a.	Explain the difference between Pre Trip and En-route travel information with suitable example.	10	L2	CO3
	b.	Describe the basic components of ATIS and how they help travelers make informed decisions.	10	L3	CO3
		OR			
Q.8	a.	How does a smart route system function in providing real time guidance to road users?	10	L2	CO3
	b.	Describe the process of data collection processing and dissemination in travel information systems.	10	L3	CO3
		Module – 5			
Q.9	a.	What are Automated Highway System (AHS) and how do they function.	10	L2	CO3
	b.	What are the major challenges and opportunities for ITS implementation in developing countries?	10	L3	CO3
		OR			
Q.10	a.	What is vehicle, Platooning in AHS and what are its advantages.	10	L2	CO3
	b.	Provide an overview of ITS implementations in developed counties.	10	L3	CO3

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