Model Question Paper -1 with effect from 2020-21(CBCS Scheme)

USN

Fifth Semester B.E. Degree Examination
INTELLIGENT TRANSPORTATION SYSTEMS

TIME: 03 Hours   **Max. Marks: 100**

Note: 1.   Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

		Module – 1	Marks
Q.1	(a)	Enumerate the various transport problems which necessitates the of ITS in cities.	10
	(b)	What is Intelligent Transportation System (ITS)? List the various functional areas of ITS.	10
		OR	
Q.2	(a)	What are the various applications of ITS in the present traffic scenario?	10
	(b)	How does the Automatic Vehicle Location/Identification detectors help in Transport Management? Explain.	10
		Module – 2	
Q.3	(a)	Explain the role of ITS for intermodal freight transport.	10
	(b)	Write a short on: Advance traveler information systems (ATIS)	05
	(c)	Write a short on: Commercial vehicle operation using ITS	05
		OR	
	(a)	What do you understand by Incident Management? How ITS can help in effective incident management?	10
	(b)	Write a short on: Advance vehicle control system (AVCM)	05
Q.4	(c)	Write a short on: Advance traffic management system (ATMS)	05
		Module – 3	
Q.5	(a)	How can ITS be deployed to promote public transport?	10
	(b)	What is meant by Regional Integrated Transportation system? Explain.	10
		OR	
Q.6	(a)	What are the various public transportation management user services which can be aided by ITS?	10
	(b)	Explain the primary components of ITS architecture.	10
		Module – 4	
Q.7	(a)	What is Advance vehicle control and safety (AVCS) system?	10
	(b)	How can ITS be used for Emergency Management?	10
		OR	
Q.8	(a)	What is sustainable Mobility? How can ITS contribute to sustainable mobility?	10
	(b)	Write a short note on: Emerging technology for ITS	10
		Module – 5	
Q.9	(a)	What is Automatic Fare collection (AFC)? How AFC system can be used for travel demand management?	10
	(b)	What is the importance of ITS for smart cities?	10
		OR	
Q.10	(a)	Explain the role of ITS in Electronic Toll collection (ETC)?	10
	(b)	Explain in detail ANY ONE case study of ITS implementation in India.	10

	Table showing the Bloom's Taxonomy Level, Course Outcome and Programme Outcome		
Question	**Bloom's Taxonomy Level attached**	**Course Outcome**	**Programme Outcome**
Q.1 (a)	L3	CO 1	
(b)	L1	CO 2	
(c)	--	--	
Q.2 (a)	L3	CO 3	
(b)	L4	CO 2	
(c)	--	--	
Q.3 (a)	L5	CO 3	
(b)	L2	CO 2	
(c)	L2	CO 2	
Q.4 (a)	L2	CO 2	
(b)	L2	CO 2	
(c)	L2	CO 2	
Q.5 (a)	L4	CO 3	
(b)	L5	CO 2	
(c)	--	--	
Q.6 (a)	L4	CO 3	
(b)	L2	CO 2	
(c)	--	--	
Q.7 (a)	L2	CO 2	
(b)	L4	CO 3	
(c)	--	--	
Q.8 (a)	L5	CO 1	
(b)	L3	CO 2	
(c)	--	--	
Q.9 (a)	L3	CO 3	
(b)	L6	CO 1	
(c)	--	-	
Q.10 (a)	L3	CO 1	
(b)	L6	CO 2	
(c)	--	--	

Bloom's Taxonomy Levels	**Lower order thinking skills**		
	Remembering(knowledge):L_1	Understanding Comprehension): L_2	Applying (Application): L_3
	Higher order thinking skills		
	Analyzing (Analysis): L_4	Valuating (Evaluation): L_5	Creating (Synthesis): L_6