III B. Tech I Semester Supplementary Examinations, Dec/Jan – 2022-23 TRANSPORTATION ENGINEERING - II

(Civil Engineering)			
			x. Marks: 70
		Note: 1. Question Paper consists of two parts (Part-A and Part-B) 2. Answer ALL the question in Part-A 3. Answer any FOUR Questions from Part-B	
		$\underline{\mathbf{PART}} - \underline{\mathbf{A}} \tag{1}$	14 Marks)
1.	a)	Define wheel gauge. What are the various gauges used in India?	[2M]
	b)	What is the difference between pusher gradient and momentum gradient?	[2M]
	c)	Differentiate between Repeating and Co-acting signals.	[2M]
	d)	What are the various characteristics of a good aircraft?	[3M]
	e)	Write down the components of Aeroplane.	[3M]
	f)	List out types of water transportation.	[2M]
		$\underline{\mathbf{PART}} - \underline{\mathbf{B}} \tag{5}$	56 Marks)
2.	a)	How would you describe the role of railways in transportation?	[7M]
	b)	Explain the requirements of an ideal permanent way with the help of diagram.	[7M]
3.	a)	What are the engineering surveys need to be conducted in geometric design or railway track?	of [7M]
	b)	Calculate the super elevation, maximum permissible speed and transition length for a 4° curve on main line with BG section with a maximum allowabe speed of 100 kmph. Assume the equilibrium speed to be 70 kmph on branchine for 3° curve.	le
4.	a)	Explain the standard and functions of interlocking in railways.	[7M]
	b)	What is automatic block system of controlling train movements? Explain the working principle of automatic block system.	ne [7M]
5.	a)	Explain the steps involved in runway orientation.	[7M]
	b)	Write a short note on taxiway design?	[7M]
6.	a)	Write short notes on corrections for elevation and temperature for a runway.	[7M]
	b)	What data is to be collected for the design of sub surface drainage system for an airport?	or [7M]
7.	a)	Discuss various advantages and limitations of water transport with reference other modes of transport.	
	b)	Differentiate between a Jetty and a Wharf. State the conditions under which you will prefer their construction.	ch [7M]
