Model Question Paper (CBCS2021Scheme)

USN | | | | | | | | | | |

Sixth Semester Civil Engineering B.E. Degree Examination

RAILWAYS HARBOURS TUNNELING AND AIRPORTS

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

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

		Module-1	***Bloom's Taxonomy Level**	**COs**	**Marks**
Q.01	a	What do you understand by a permanent way? Mention the requirements of an ideal permanent way.	L1	CO1	10
	b	What is creep of rail? Explain briefly the causes, effects and prevention of creep	L2	CO1	10
		OR			
Q.02	a	What are the requirements of a good ballast? Mention the different types of ballast usedin permanent way	L1	CO1	10
	b	A 5 degree curve diverges from a 3 degree main curve in reverse direction in the layout of a B.G yard. If the speed on branch line is restricted to 35 kmph, determine the restricted speed on the main line.	L3	CO1	10
		Module-2			
Q.03	a	Discuss the conventional method of route alignment survey.	L2	CO2	10
	b	Explain the necessity of maintaining railway track. List the various items of maintenance.	L2	CO2	10
		OR			
Q.04	a	Enumerate and explain the methods of stabilization of track on poor soil.	L2	CO2	10
	b	Explain briefly the different types of station yards. With a neat sketch, explain the functioning of a marshalling yard.	L2	CO2	10
		Module-3			
Q.05	a	Explain the components of a harbor. Give neat sketches of the layouts of an component of artificial harbor	L2	CO3	10
	b	With a neat sketch explain needle beam method of tunnel lining	L2	CO4	10
		OR			
Q.06	a	Enumerate and explain different types of back waters	L2	CO3	10
	b	Write short notes on i) tunnel lining ii) tunnel drainage	L2	CO4	10
		Module-4			
Q.07	a	List the various elements of an airport and explain them with a neat sketch	L2	CO3	10
		Explain the various factors considered in selection of an airport site	L2	CO3	10
		OR			
Q.08	a	Describe any four major elements influencing the planning of airports	L2	CO3	10
		Explain airport characteristics which affect the airport design	L2	CO3	10

Module-5					
Q.09	a	Explain the procedure for determining best orienting runway using wind rose diagram of type II	L2	CO1	10
	b	Discuss the classification of airport.	L2	CO1	10
OR					
Q.10	a	An airport is planned at an elevation of 380 m above MSL. The monthly mean of maximum and average daily temperatures for the hottest month at the site are 40 degree and28 degree centigrade respectively. The effective gradient is 0.18%. Determine the length ofthe runway required at the proposed site if the basic runway length is 1900m	L3	CO1	10
	b	Explain the various types of airport marking	L2	CO1	10

*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of question