PVP 20

Code: 20CE4702B

IV B.Tech - I Semester – Regular Examinations - DECEMBER 2023

RAILWAY AND HARBOR ENGINEERING
(CIVIL ENGINEERING)

Duration: 3 hours Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

BL – Blooms Level CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	How would you describe the role of railways in transportation?	L2	CO1	7 M
	b)	Discuss about rail joints.	L2	CO1	7 M
OR					
2	a)	Explain the factors which affect the choice of the railway gauge.	L2	CO1	7 M
	b)	Discuss different types of welding of rails.	L2	CO1	7 M
UNIT-II					
3	a)	Explain about comparison of different types of sleepers.	L4	CO2	7 M
	b)	If an 8^0 curve track diverges from main curve 6^0 in an opposite direction of broad gauge yard. Calculate speed and super elevation of branch line if the maximum speed permitted on mainline is 45 kmph.	L4	CO2	7 M

OR					
4	a)	Explain about super elevation.	L4	CO2	7 M
	b)	Compare the suitability of different materials as ballast used on railway tracks.	L4	CO2	7 M
UNIT-III					
5	a)	Explain the standard and functions of turnout in railways.	L3	CO3	7 M
	b)	Explain the level crossing and types of crossings.	L3	CO3	7 M
OR					
6	a)	Explain the site selection for railway station.	L3	CO3	7 M
	b)	What are the advantages and disadvantages of signaling system? Explain.	L3	CO3	7 M
UNIT-IV					
7	a)	Explain briefly about aeroplane component parts.	L4	CO4	7 M
	b)	Explain the factors affecting selection of site for airport.	L4	CO4	7 M
OR					
8	a)	Explain in brief about Runway Lighting and Taxiway Markings.	L4	CO4	7 M
	b)	Explain about AAI.	L4	CO4	7 M
UNIT-V					
9	a)	Discuss various advantages and limitations of water transport with reference to other modes of transport.	L2	CO5	7 M

	b)	Explain the classification of harbours based on location.	L2	CO5	7 M
OR					
10	a)	Describe the fender systems and docks in brief.	L2	CO5	7 M
	b)	Explain the importance and different types of navigational aids.	L2	CO5	7 M