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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech IV Year I Semester Regular & Supplementary Examinations Feb-2021
TRANSPORTATION ENGINEERING-II
(Civil Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 a Develop your answer about the following elements in view of highway drainage. 6M
i) Road side drains ii) Cross drain
- b What are the various methods adopted in reduction of sub surface water. 6M

OR

- 2 a How the bituminous roads will be constructed in regarding with following techniques 8M
i) Interface treatment ii) Grouted (or) Penetration type of construction
- b Give a brief discussion about the construction and maintenance of earth roads. 4M

UNIT-II

- 3 a Define the term railway engineering and how our Indian railways are broadly classified. 4M
- b Define the term rail. What are all its function, requirements and types adopted in Indian Railways? 8M

OR

- 4 a Define a gauge. Explain briefly about different gauges that are adopted for construction of railways. 8M
- b Differentiate between Roadways and Railways 4M

UNIT-III

- 5 a What is a level crossing? Explain its types, inspection and maintenance of them. 8M
- b Explain the following terms: i) Way side stations ii) Terminals 4M

OR

- 6 a Using Coles method, derive an expression for Curve Lead (CL), Switch Lead (SL), Lead of Crossing (L), Radius of curvature (R) and heel divergence (d) 8M
- b Explain the following terms: i) Junctions ii) Block stations 4M

UNIT-IV

- 7 a Briefly explain the concept of Wind Rose diagram. 6M
- b Define: i) Anchorage ii) Terminal area 6M

OR

- 8 a What are the basic patterns of runway configurations? 4M
- b Give a typical layout of a single runway airport showing all the components. 8M

UNIT-V

- 9 a Briefly explain the historical development of water transportation in India. 6M
- b Define break water and explain its classification. 6M

OR

- 10 a Briefly explain about various breakwater failures. 6M
- b What considerations are taken in selecting the location of a harbour? 6M

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