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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)  
**B.Tech IV Year I Semester Supplementary Examinations February-2022**  
**TRANSPORTATION ENGINEERING-II**  
(Civil Engineering)

Time: 3 hours

Max. Marks: 60

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

**UNIT-I**

- 1 a Briefly explain about the construction and maintenance of gravel roads. 6M  
b Write brief introduction about highway drainage and list out their requirements and importance. 6M

OR

- 2 a Explain step by step procedure of pre-mixed type construction of bituminous road 6M  
b Explain briefly about sub surface drainage system and what are the various methods adopted in reduction of sub surface water. 6M

**UNIT-II**

- 3 a Define the term railway engineering and how our Indian railways are broadly classified. 6M  
b What is the role of ballast in railways? Explain in detail about their function,. 6M

OR

- 4 a What are the various engineering surveys to be conducted in selection of permanent way? 6M  
b Define a gauge. Explain briefly about different gauges that are adopted for construction of railways. 6M

**UNIT-III**

- 5 a Explain in detail about various components of points and crossings with a neat sketch. 6M  
b What are the factors that should be considered for selecting a site for railway station? 6M

OR

- 6 a What are the various types of turnout used in railway? Explain with a neat sketch. 6M  
b What is a marshalling yard? With a neat sketch, describe the working of a typical Marshalling yard. 6M

**UNIT-IV**

- 7 a What are the factors affecting in the selection of a site for an airport? Explain. 6M  
b Explain the various surveys to be conducted and the data to be collected for airport site collection. 6M

OR

- 8 a Explain briefly about layout and functions of airport. 6M  
b What are the different systems of aircraft parking? Explain its suitability. 6M

**UNIT-V**

- 9 a Classify harbours on the basis of utility and explain them. 6M  
b Define break water and explain its classification. 6M

OR

- 10 a What is mean: Docks? Explain the dry docks and wet docks with neat sketch. 6M  
b Define break water and explain its classification. 6M

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