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

B.Tech IV Year I Semester Supplementary Examinations August-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 Explain step by step procedure of pre-mixed type construction of bituminous road. 6M  
b Come out with a brief introduction about highway drainage and list out their requirements and importance. 6M

OR

- 2 a Briefly explain about the construction and maintenance of gravel roads. 6M  
b What do you understand by surface drainage system and what are the various surface drainage systems generally adopted. 6M

**UNIT-II**

- 3 a Explain in detail about various track fittings used in railways. 8M  
b What is the role of ballast in railways? 4M

OR

- 4 a Define the term railway engineering and how our Indian railways are broadly classified. 7M  
b What is the role of a sleeper in railway? Explain in briefly about Wooden sleeper. 5M

**UNIT-III**

- 5 a Explain in detail about various components of points and crossings with a neat sketch. 8M  
b What are the various types of turnout used in railway? 4M

OR

- 6 a How the stations in Indian railways are classified according to operational characteristics and functional characteristics. 6M  
b What are the factors that should be considered for selecting a site for railway station? 6M

**UNIT-IV**

- 7 a Explain the various surveys to be conducted and the data to be collected for airport site collection. 8M  
b Define: i. Apron ii. Shoulders. 4M

OR

- 8 a Draw a typical Airport layout showing different components? 6M  
b What are the different systems of aircraft parking? Explain its suitability. 6M

**UNIT-V**

- 9 a Differentiate between port and harbour. 6M  
b Mention the advantages and disadvantages of floating dry dock. 6M

OR

- 10 a What is jetty? Explain open jetties, piled jetties & cylinder jetties. 6M  
b What are the steps involved in maintenance of lock gates and caissons? 6M

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